E-mail response to Chad Bartram, Benton County PUD Manger, From Beth Coffey Corps of Engineers, concerning the question "does the Corps have the authority to place the dams into a non-operational status

Responses in Blue italics from Jim Waddell Civil Engineer, Clallam County PUD Commissioner and retired Corps of Engineers 35 years (Deputy District Engineer for Programs at Walla Walla District and 10 years' policy work in Corps DC HQ)

Chad,

Thank you for your inquiry about the lower Snake River dams. I offer the following information to help clarify terms and assertions related to dam breaching and non-operational status designations. We also welcome, and strongly encourage, the Tri City Herald to contact us directly about the operation and maintenance of these projects.

"Caretaker" or "non-operational" status for a Corps project is most typically a designation when a project or its components are in poor operational condition, have failed a safety evaluation, is experiencing a structural emergency, or presents general safety concerns. In this status, the Corps limits actions to ensure the stability of a project with minimal operations, while providing for security and public and environmental safety. The Corps can place a project in caretaker status when a project is no longer generating the benefits for which it was constructed, is not able to meet the project's congressionally authorized purposes (in which case the project would likely not qualify for or receive Operations and Maintenance funding from Congress) and the benefits of the project (economic or otherwise) do not outweigh the cost of addressing the condition of the project.

The above paragraph is correct by spelling out both the conditions for placing a project into a non-operational status and what must be done to do so. Special attention should be paid to the phrase "The Corps can place a project in caretaker status when a project is no longer generating the benefits for which it was constructed". This is the case of the 4 Lower Snake Dams based on updated and corrected information from the Corps 2002 EIS used to derive the life cycle economic benefits. Also, for the last few years, annual generation revenue has fallen below Operations/Maintenance/Repair/Rehab and Replacement (OMRRR) costs, in 2018 these 4 dams lost \$20 to 40 million. This is of course the biggest problem for BPA and ratepayers and is due to the rapidly rising cost of OMRRR and declining revenues. These dams do not make money even is if you use generation revenue provided by the Corps Walla Walla

District, but since BPA has been generating at least 17% surplus sales, the loss is really greater since the power is not needed for base load nor is it available for peaking power due to low flows in winter and summer.

The phrase, "(in which case the project would likely not qualify for or receive Operations and Maintenance funding from Congress)" is true but presented in a context that implies Congress makes the determination to qualify for funds. This is not how it is done. The Corps Walla Walla District should be making this determination and should not be asking (budgeting) for funds if the project fails to meet the economic criteria of a benefit-to-cost ratio greater than one, which these 4 dams do not. Since budgets are developed at the field level, rolled up at District, Division and DC level they are often cut along the way in order to meet budget guidance or to provide funds for more needy projects, eg. McNary Dam. Furthermore, just because a project was indicated in a bottoms up process, what comes out of the Appropriations process may not be enough to meet minimum operational needs, which should further compel the Commander and Programing folks to cease operations. See the "5 Means Paper" for further explanation.

It should also be noted that over a billion dollars have been spent on juvenile passage improvements through the Columbia River Fish Mitigation Program over the last 20 years with virtually no benefit in improved Smolt-to-Adult survival ratios (Average SAR is about 1.2 % for last 30 years with the last 5 years below .5%. 4% is considered the minimum to start recovery) and actual returns are now lower than the worst year in the 1990's. What is not apparent in Corps and BPA programming documents is funding for OMRRR costs for the very complex, expensive and hard to maintain bypass systems. This is conservatively estimated at \$30-40 million in todays dollars. To underfund them would result in far worse juvenile survival than if they had never been built, see page 25 of the 2002 EIS Summary. https://www.nww.usace.army.mil/Library/2002-LSR-Study/

The phrase "the Corps limits actions to ensure the stability of a project with minimal operations, while providing for security and public and environmental safety." is the next consideration, how to stabilize and secure the dams. In this case, the only feasible way is to remove the earthen berm of each dam and for Ice Harbor and Lower Monumental some of the earthen abutment as well. (see the 2002 Feasibility Study and EIS. Link above,) Many like to believe that allowing flow through turbine draft tubes or over the spillway will work, but this would, within a 3-5 years, destroy the structural integrity of the dam and it would fail, catastrophically.

The Corps does not need congressional authorization to place a project in caretaker or non-operational status. However, without congressional authorization, the Corps cannot modify the project (i.e. breach a dam) such that it no longer meets its congressionally authorized purposes.

The first sentence is correct.

However the second sentence saying it "cannot modify....such that it no longer meets its congressionally authorized purpose" is not correct for two reasons. First, the term "modify" is not the same as "securing" the project. According to Corps and Water Resource guidelines "modifying" a project is a change in purpose or scope of a project which the Corps is not authorized to do. But again, that is not what breaching the earthen berm is, it is the only way to "secure" the project so that it can be placed into a "non-operational status". In the past, the Northwest Division has erroneously borrowed the term "modify" from an internal Corps regulation ER 1165-2-119 which deals with changing the purpose of a project., eg., flood control to hydro power. Breaching does not change the purpose of the project, they are still hydro power and navigation projects, just not operational.

Secondly, it is not consistent with the previous statements that says the Corps has the authority to secure and place a project into a non-operational status. It has also been the practice of the NW Division and Walla Walla District to say they are "mandated" by Congress to operate these for hydro and navigation. This term has been misused for so many years that it is almost gospel in the region and is a big reason for biological research and solutions and economic assumptions that have failed. It is good is to see they have stopped using that term here as it is a clear overstatement of the fact that Civil Works project authorizations are permissive in nature, that is, they must meet and continue to provide economic benefit or not violate laws, such as the Endangered Species Act.

At this time, the four lower Snake River (LSR) dams do not meet the conditions or criteria for caretaker or non-operational status and were funded most recently through the Energy and Water Appropriations for fiscal year 2019. In addition to

other project benefits, the dams facilitate the navigation of a significant amount of commercial traffic, which justifies the current maintenance level of the navigation locks and other facilities. Given these benefits and the lack of overall safety concerns with the current status of the dams, the Corps does not have the necessary justification to place the dams in caretaker or non-operational status. The Corps must continue to operate the lower Snake River projects to meet their congressionally authorized purposes.

It is pretty clear that the Corps does have the justification to place these dams into a non-operational status. It is also the case that the four lower Snake Dams purposes and expenses are split 92% hydro power (on average) and 8% for navigation, meaning BPA and its customers must pay 92% of all costs associated with the dams, they should have a lot to say about the costs and not be forced to continue spending money on dams that are loser's when we have better performers that are in much more need of money, eg., Grand Coulee, McNary and John Day.. Indeed, the first dam to be breached is 98.4% hydro power funded and one would think BPA would be demanding that no further funds be spent and the dam breached immediately as the cheapest form of fish mitigation. Navigation is no longer economically justified ether although the Walla Walla District claims otherwise.

The Corps would be happy to provide more information to you, your partner utilities, and the Tri City Herald. The federal agencies are concerned about inaccurate information in the public domain and we welcome opportunities to provide and reinforce fact-based information to stakeholders in the region. Please contact me directly or reach out to Amy Echols on my team (she is copied on this message or 503-808-3722) if we can be of further assistance.

Beth

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