Comments of the State of Washington on the Draft Environmental Impact Statement for Columbia River System Operations

A. Introduction

The health of the Columbia River system is central to the environmental, economic, and cultural well-being of Washington state and the Pacific Northwest. The Columbia River System Operations (CRSO) Environmental Impact Statement (EIS) should serve as an historic jumping off point for the modernization of the CRSO to make it compatible with the restoration of healthy, harvestable runs of Columbia Basin salmon and steelhead, while retaining and enhancing the benefits it provides for electricity, water supply, navigation, and recreation. The draft CRSO EIS contains the seeds for meeting this purpose, but it lacks analytical clarity and falls short in setting forth an ambitious vision for advancing salmon recovery in a manner that optimizes the value of the Columbia River System for the region as a whole.

The draft EIS’s Preferred Alternative (PA) flexible spill operation represents progress for salmon survival compared to past dam operations, but additional actions on top of those proposed by the PA will likely be needed to achieve regional salmon recovery goals. For example, the draft EIS does not lay out a clear pathway toward regionally discussing, vetting, and adopting additional measures. Instead, it endorses an unspecified degree of “improvement” for Endangered Species Act (ESA)-listed salmon and steelhead only. This falls short of Washington’s expectations for the NEPA process, which provides an opportunity to restore salmon and steelhead consistent with regional goals and that meets other applicable federal laws such as the Northwest Power Act (not only the ESA jeopardy standard). In addition, the range of NEPA alternatives considered may be broad, but does not present a full range of options thanks to complex multiple objective alternatives that all have a mix of new positive and new negative impacts on salmon. The document calls for adaptive management, but the scope of that adaptive management lacks a road map for adopting stronger measures as needed.

To succeed in the mid- to long-term, flexible spill must be accompanied, starting as soon as possible, by an active, collaborative, and visionary regional conversation. That conversation should seek to optimize, beyond that achieved in the draft EIS, system operations with a high likelihood of restoring salmon and steelhead to healthy, harvestable populations that also contribute toward a reliable prey base for southern resident orcas; provide clean, reliable, and affordable energy to support achievement of the region’s climate and clean energy goals; and a healthy agricultural sector including a reliable water supply and transportation network. To show support for, and faith in, this conversation, the action agencies should maintain the preferred alternative as currently envisioned (with adaptive management) in place for three to five years, at which point the region should assess the feasibility of implementing more aggressive salmon restoration measures, including direct and off-site mitigation. The issues the CRSO EIS is intended to address are too dynamic for a 15-year plan of action to be appropriate,
especially without built-in check-ins that anticipate substantial changes in direction as necessary and as supported by a collaborative management process.

The Washington Department of Fish and Wildlife, Department of Ecology, and Department of Agriculture have served as Cooperating Agencies throughout the CRSO NEPA process, and the Department of Commerce joined the Cooperating Agency team later in the process. Washington agencies have offered numerous comments at various stages of the process, many of which remain relevant. We urge you to review Washington’s cooperating agency input to date, especially on the more technical elements of the CRSO EIS. We are viewing the current comment opportunity on the draft EIS as a chance to provide feedback and input in a narrative form rather than the line-by-line dissection of the technical elements that Cooperating Agencies have provided in considerable volume over the last three years.

B. Scoping and procedural concerns

As noted in our February 2017 scoping comments, Washington envisioned a CRSO EIS that is more visionary and provides more context for informed policy making than is afforded by the draft EIS. We have the following concerns, which build on concerns Washington’s cooperating agencies have conveyed throughout the CRSO NEPA process:

- The draft EIS does not contain a restoration “bookend” alternative that optimizes salmon and steelhead survival. Multiple Objective Alternative 3 (MO3) and Multiple Objective Alternative 4 (MO4) include powerful new fish recovery actions (breaching and higher spill, respectively), but they also include new actions that may harm salmon survival. The lack of a “bookend” fish-friendly alternative compromises the ability of the region to place the Preferred Alternative in context.

- The draft EIS does not furnish a basis that allows the reader to analyze the effect of various individual components of the multiple objective alternatives, which makes it impossible to determine how much an individual action helps or hinders achieving the document’s various goals.

- The goal the draft EIS is working to meet for salmon and steelhead recovery is vague. It appears to be aiming for improvement well short of the State of Washington’s “healthy, harvestable” goal (see Washington scoping comments, footnote 1 for more background), which is compatible with the Northwest Power and Conservation Council’s goal of a 2-6% smolt-to-adult return ratio, with an average of 4%, and provisional population goals developed by the collaborative Columbia Basin Partnership. As noted above, NEPA affords a much-needed opportunity to consider a full range of federal laws and policy goals.

- As touched on above, in important respects the draft EIS does not represent adequately, or adequately accommodate, a long-term vision for the basin. There is no attempt to incorporate or recognize ongoing tribal and Northwest Power and Conservation Council
efforts to pursue phased reintroduction of salmon and steelhead above Chief Joseph and Grand Coulee dams, no strategy proposed for tying in the outcome of the current Columbia River Treaty negotiation, and there are only hints of how fishery and dam managers might work together to optimize the system for energy, transportation, and agriculture along with environmental concerns including salmon and southern resident orca recovery. Washington’s Lower Snake River Stakeholder Report\(^1\) and associated panel discussions highlighted a hunger to better understand what it will take to optimize the system, and now is the time to convene a dialogue around how the region can achieve this goal. Flexible spill can be a first step, but not if it is largely locked in place for fifteen years as proposed.

- The multiple objective alternative (MOA or MO) concept is useful in theory (especially if accompanied by the “bookend” alternatives urged above), but in practice the MOAs in this draft are not all serious policy alternatives. For instance, rather than explaining the impact of spring spill and summer spill as part of a menu of discrete operational choices with different costs and benefits for fish and power during the different seasons, MO4 seeks to maximize spill for the entire salmon migration season. The result is that a more affordable fish-friendly alternative that focuses spill to 125% TDG in the spring only is not analyzed for its effectiveness for fish or its impact on Bonneville Power Administration revenue. In addition, generally “fish friendly” MOAs, including MO3 and MO4, include large new irrigation withdrawals from Lake Roosevelt and other measures to incrementally improve hydropower production that partially counteract their fish benefits.

- The cumulative impacts of Lake Roosevelt withdrawals and other upper river water management changes are not adequately analyzed, especially in terms of how those changes may affect juvenile fish survival past the non-federal dams on the mid-Columbia and rearing flows for the natural fall Chinook population in the Hanford Reach.

- Little consideration is given to “finishing the job” when it comes to fish stocks like mid-Columbia steelhead which are positioned for de-listing if there is a focused effort to address a limited number of limiting factors to recovery (e.g., implementation, not testing, of surface flow bypass routes at all projects during non-spills for pre-spawn steelhead adults).

- The comment period on the draft EIS was too short considering the burden placed on the public due to the COVID-19 pandemic. This will significantly compromise the quality and quantity of feedback you receive on this important document.

\(^1\) [https://www.governor.wa.gov/sites/default/files/Final%20Draft%20LSRD%20Report.pdf](https://www.governor.wa.gov/sites/default/files/Final%20Draft%20LSRD%20Report.pdf)
C. Preferred Alternative and Flexible Spill

In spite of the concerns voiced above and below, the general thrust of the Preferred Alternative represents a potential pathway for progress over past dam operations and can provide a path to additional future progress if the final EIS calls for a flexible spill operation that adaptively builds on salmon survival improvements from the 2019-21 Flexible Spill Agreement to be in place for three to five years rather than 15. This shorter timeline can enable the region to move forward, while pivoting toward additional actions that increase the probability of achieving Northwest Power and Conservation Council recovery goals and metrics. During this three-to-five period, an adaptive management framework must in place to optimize the flexible spill approach and to respond quickly to fish returns that are below science-based adaptive management thresholds, such as the region is currently experiencing with low upper Columbia and Snake river steelhead returns.

While the juvenile salmon and life cycle survival improvements attainable through the flexible spill are, according the draft EIS, less than those that could be obtained through MO3 or MO4, flexible spill to 125% total dissolved gas can be expected to provide significant (over 50% according to the Comparative Survival Study model) improvements to Snake River spring/summer Chinook and steelhead SARs. However, it appears doubtful that even the improvements from flexible spill can bring about the SARs necessary to consistently achieve the Council’s long-term recovery goals for either Snake River or upper Columbia River stocks. Near-term flexible spill operations must continue to build and improve upon the 2019-2021 Flexible Spill Agreement, which is evidence of the potential for collaboration among different regional entities. Momentum from the flexible spill collaboration will have the best chance to endure and strengthen if the final EIS provides the necessary space for discussion and agreement on a strategy to move toward stronger salmon recovery actions as feasible.

Washington urges that the final EIS call for a continuation of a full tributary, estuary, and hatchery mitigation program and an enhanced predation control program, updated as needed according to the most recent Fish and Wildlife Program from the Northwest Power and Conservation Council. The final EIS and its PA should directly reference the reintroduction efforts in the blocked areas upstream of Chief Joseph and Grand Coulee dams and the Columbia River Treaty negotiations as key processes associated with salmon recovery efforts. The final EIS and its PA should not endorse or include new power-friendly actions that could harm salmon and steelhead, such as installation of high capacity turbines that could increase powerhouse encounters for juvenile migrants and removal of fish screens from turbine intakes, at least absent solid new scientific evidence that these actions would not counteract some of the benefits and assumptions of the flexible spill operation or more aggressive salmon recovery measures. Flexible spill must also be adaptively managed toward increasing its power to improve fish survival; retreating from the 2020 flex spill operation to a “block spill” operation or a weaker flex spill operation would be going backwards.
D. Energy

In Washington’s comments to the Action Agencies on the power and transmission analysis during the cooperating agency process, including the review of the administrative draft of the PA, we expressed concern about the draft EIS’s analysis of replacement resources. Of particular concern was the lack of inclusion of energy efficiency (EE) resources beyond those identified in the Northwest Power and Conservation Council’s Seventh Power Plan. If the replacement resource options had included additional EE, as would be expected in an optimized analysis, the cost impacts would be lower for alternatives requiring replacement resources such as MO3 and MO4. The Action Agencies should incorporate relevant analytical tools and assumptions, such as those used by the Northwest Power and Conservation Council in resource planning, to inform the analysis of replacement resource options. Action Agencies should also incorporate, when available, an updated reliability analysis from the Council.

Additional resource retirements and changes in state level energy policy since the initial scoping of the CRSO EIS has changed the context in which the draft EIS and its analyses of the alternatives were conducted. During the CRSO cooperating agency meetings the resource adequacy analysis of the alternatives illustrated the potentially large Loss of Load Probabilities (LOLPs) that could occur, especially when coupled with accelerated retirements of coal resources around the region.

While the PA satisfies the criterion set within the NEPA process for defining an adequate system, and while the associated LOLP was not severely out of alignment with the Northwest Power and Conservation Council’s resource adequacy standard of five percent LOLP or less, additional resource retirements outside the Federal Columbia River Power System have been announced and state standards requiring the phase-out of coal resources were adopted after the CRSO NEPA process formed its baseline assumptions. An updated regional analysis is needed as part of the ongoing adaptive management plan for implementing the final DEIS’s PA as well as the regional conversation Washington is requesting.

E. Climate Change

Washington appreciates the draft EIS’s analysis of the different alternatives’ impacts on carbon-free energy production, with the caveats raised in Section D of these comments.

We also appreciate the documentation of likely climate change impacts in the Columbia Basin and the analysis of how each alternative will perform under climate stressors. However, it would be useful to see, integrated into the “bookend” fish-friendly alternative Washington asked for in our scoping comments, more work to identify and package a set of operations that will be most resilient to climate change. Without such an alternative, it is difficult to clearly understand how the PA, for instance, stacks up against other alternatives from a climate adaptation and resilience perspective.
F. Transportation

Please see the attached spreadsheet (Attachment A) from the Washington State Department of Transportation. WSDOT points out that the analysis for MO3 (the only alternative with significant implications for transportation) appears to rely on outdated information, and thus it may not accurately reflect the costs and benefits of upgrading rail, highway, grain elevator, and lower Columbia shipping infrastructure to adapt to an alternative that includes breaching the lower Snake River dams.

G. Water Quality/Temperature

The draft EIS illuminates some issues and opportunities related to controlling warm water temperatures to create better conditions for migrating salmon in the summer (and even late spring in years like 2015).

At D-3-36, the draft notes that there is “mild stratification” of water temperature behind McNary and John Day dams on the lower Columbia. Temperatures at both projects can increase mortality for adult and juvenile salmon, and even set up thermal barriers to upstream migration, as occurred with sockeye in 2015. Washington requests that the action agencies analyze with regional fish managers, and recommend in the final EIS if appropriate, installation of pumps, similar to those at Lower Granite Dam, to cool the fish ladders at John Day and/or McNary dams.

For MO3, it is important for the region to understand the water temperature effects of lower Snake River dam breaching on existing temperature issues as well as how breaching would perform under future climate scenarios. To this end, it would be helpful if the final EIS used both the Corps’ HEC River Analysis System and the Environmental Protection Agency’s temperature model, as the draft EIS does on the fishery side by using the competing Comparative Survival Study model and the NOAA COMPASS lifecycle model. EPA has been studying temperature in the Columbia-Snake system for years, and the region will depend on EPA’s analysis in other upcoming regulatory processes, so it only makes sense that the EPA model should be relied upon in this EIS as well. Also relevant to the potential effects of breaching, and missing from the MO3 analysis, is how Dworshak Dam releases might be optimized under this alternative. We urge that the final EIS explore in detail how Dworshak releases might be reshaped from status quo releases to maximize the occurrence of healthy water temperatures in a free-flowing lower Snake River, how far downstream effects would extend, and what quantitative impact that operation might have on salmon and steelhead returns.

Finally, the fish-friendly bookend alternative we have consistently requested since our scoping comments should explore what if any changes to federal storage dam operations would be capable of cooling the mid- and lower Columbia River. It would also explore how changes in the shape and quantity of releases might benefit water quality in the estuary. We continue to
believe a fish-friendly bookend alternative is necessary for analytical purposes and to complement the power-friendly MO2.

H. Irrigation

The Washington Department of Ecology’s Office of Columbia River’s (OCR) has been working since its inception in 2006 to carefully balance development of new out-of-stream water supplies with protection and enhancement of instream flows in the Columbia River and its Washington tributaries. The full build out of the Columbia Basin Project proposed in several of the draft EIS MOAs, absent significant new water storage releases to augment instream flow, would be inconsistent with the balance Washington has sought to achieve through the OCR. We urge the action agencies to ensure that even the smaller withdrawals proposed in the PA from Lake Roosevelt and Lake Rufus Woods – should they be adopted in the final EIS – are subject to OCR’s rules and full environmental review on a project level.

Regarding lower Snake River irrigation affected by lower Snake River dam breaching, Washington suggests including more information in the final EIS on the cost of replacing irrigation from the reservoir behind Ice Harbor Dam and/or compensating landowners for diminished value of dryland acreage or acreage that would require deeper wells. That is more realistic and desirable than simply assuming, as does the draft EIS, that irrigated agriculture in that area will simply vanish.

I. Fishing economics

The draft EIS provides insufficient analysis of economics of commercial, tribal, and recreational fishing in terms of geographic scope and quantitative analysis. Future management of the Columbia River will have profound impact on the West Coast and Alaska's commercial fishing economy (much of which uses Washington as a home base), and recreational and tribal fishing well inland into eastern Washington, eastern Oregon and central Idaho. More information on the impact of the more restorative alternatives on inland recreational fishing economies and tribal economies would be helpful to informed decision-making, as would be more information on the benefits for commercial fisheries of the additional Snake River fall Chinook habitat that would be made available through dam breaching.

J. Conclusion

Thank you for considering the State of Washington’s comments on the draft CRSO EIS. Please contact Michael Garrity at the Washington Department of Fish and Wildlife with questions at Michael.Garrity@dfw.wa.gov or 360-810-0877.