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*Submitted via email: [SolDucWeirReplacement@PublicInput.com](mailto:SolDucWeirReplacement@PublicInput.com)*

**Re: COMMENTS ON DNS 24030: SOL DUC HATCHERY WEIR PERMANENT REPLACEMENT**

Wild Fish Conservancy (WFC) and The Conservation Angler (TCA) appreciate this opportunity to provide comments on the Washington Department of Fish and Wildlife's (WDFW) Determination of Nonsignificance (DNS) on the Sol Duc Hatchery Weir Permanent Replacement (DNS 24-030). WDFW, Determination of Nonsignificance for Sol Duc Hatchery Weir Permanent Replacement (July 31, 2024) (available at <https://wdfw.wa.gov/sites/default/files/2024-07/dns-24-030-sol-duc-hatch-weir.pdf>) (hereinafter, the "DNS").

Through this State Environmental Policy Act (SEPA) review, WDFW continues a pattern and practice of attempting to narrow the scope of SEPA review to the impacts of construction only, while excluding review of the potential negative ecological, genetic, and facility impacts of the weir permanent replacement and associated hatchery program on wild fish and their ecosystems. In fact, neither the DNS nor the SEPA Environmental Checklist for Sol Duc Hatchery Weir Replacement (July 31, 2024) (available at <https://wdfw.wa.gov/sites/default/files/2024-07/checklist-20240731-sepa-checklist.pdf>) (hereinafter, the "Checklist"), include information describing the purpose/ need for the Sol Duc Hatchery Weir Permanent Replacement or how WDFW intends to use the weir.

The use of weirs as a management tool to reduce hatchery-wild interactions on the spawning grounds and collect broodstock are known to cause more than a moderate impact to wild salmonids. Research by WDFW scientists demonstrates weirs are a significant barrier to wild fish passage, resulting in unintended negative impacts on spawner distribution and productivity. Additionally, weirs have demonstrated limited efficacy in reducing the percentage of hatchery spawners (pHOS) in Washington State hatcheries to levels necessary to ensure long-term viability of wild salmon, steelhead, and resident trout populations. The DNS omits any evaluation of the Sol Duc Hatchery weir replacements' likely impacts to wild fish, and therefore WDFW could not have rationally concluded that the action will not have more than a moderate effect on the quality of the environment.

WDFW also has a pattern of violating SEPA when expanding hatchery production for the purported purpose of feeding Southern Resident Killer Whales (SRKW), a species whose existence depends on wild salmon, not hatcheries. The DNS follows this pattern by attempting to "piecemeal" or segregate SEPA

review of essential components of these expansions by claiming the Sol Duc Weir Permanent Replacement is separate from the SRKW Initiative. The weir is an essential component of the Sol Duc Hatchery program and will be used by WDFW for the purpose of increasing Chinook production as part of the SRKW Initiative. See Checklist A.7. WDFW cannot evaluate the impact of the weir replacement without evaluating the cumulative environmental impacts of the Sol Duc Hatchery program and the SRKW Initiative on wild fish, SRKW, and their ecosystems.

The weir permanent replacement will have more than a moderate effect on wild fish. WDFW must revoke the DNS or abandon the weir replacement until WDFW produces an environmental impact statement (EIS) evaluating the impacts of the SRKW Initiative, which includes evaluation of the impacts of the Sol Duc Hatchery (including its essential components, i.e. weirs).

Further, given the overwhelming weight of best available science on hatchery impacts on wild fish, no reasonable person could believe that the scale of the proposed increase of hatchery smolts would not have more than a moderate effect on wild salmonids in the affected watershed.

See Araki, H., and C. Schmid. (2010) (explaining that out of 266 peer-reviewed papers that evaluated the impacts of hatcheries on wild fish, nearly three-quarters of them found negative effects on wild fish and none showed positive effects); See also e.g., Bowlby and Gibson (2011), Quinones et al. (2013), Araki et al. (2009), Reisenbichler and Rubin (1999), Barton and Scribner (2004), Bingham et al. (2014), Christie et al. (2012), Weigel et al. (2019), Johnson et al. (2012), Wilmes et al. (2018), Hess and Matal (2014), and Hess et al. (2011), , Bowlby et al. (2011); Hess et al. (2011); Carmichael et al. (2015); Chilcote (2003); Chilcote (2011); and Christie et al. (2016).

### **SEPA's Requirements**

The purpose of SEPA is to ensure that state and local agencies consider environmental values when making certain decisions. That requires agencies to identify environmental impacts that are likely to result from their projects, including cumulative, short-term, long-term, direct, and indirect impacts.

SEPA requires an agency to make a threshold determination of whether every project or nonproject action, including plans, policies, and proposals, “is likely to have a probable significant adverse environmental impact[.]” WAC 197-11-330(1)(b). With some exceptions, agencies must use an environmental checklist prepared by the Department of Ecology (DOE) to assist them in making threshold determinations. WAC 197-11-315. The purpose of the checklist is to ensure that an agency, at the earliest possible stage, fully discloses and carefully considers a proposal's environmental impact before adopting it. *Spokane County v. E. Wash. Growth Mgmt. Hr'gs Bd.*, 176 Wn. App. 555, 579 (2013). An agency issues a DNS if it determines that the project will have no probable significant adverse environmental impacts. WAC 197-11-340(1). However, an agency must prepare an EIS for covered actions “having a probable significant, adverse environmental impact.” RCW 43.21C.031(1). This means an agency must prepare an EIS whenever a policy or plan is “reasonably likely” to have more than a “moderate effect on the quality of the environment.” *Norway Hill Pres. & Prot. Ass'n*, 87 Wn.2d 267, 278 (1976).

Among the factors the agency must consider adverse impacts on endangered species. WAC 197-11-330(3)(e)(ii).

## **WDFW Continues to Violate SEPA by Refusing to Perform Any Environmental Review of the SRKW Initiative**

The DNS demonstrates that the weir permanent replacement is part of a larger project that has never undergone SEPA review. In describing further activity related to/or connected to this proposal, the Checklist provides that “Unrelated to this work, the hatchery is expanding raceways to allow for increased production of Chinook salmon for Southern Resident Killer Whales.” DNS, at A.7. WDFW unjustifiably attempts to segregate SEPA review of the weir replacement. However, this weir is an essential component of the Sol Duc Hatchery program and will be used for the purpose of expanding Chinook production by one million fish under the SRKW Initiative. The SRKW Initiative is a nonproject action that has not undergone SEPA review. This failure is the subject of ongoing state litigation. See, *WFC and TCA v. WDFW et al.*, Superior Court of the State of Washington for King County Case No. 21-2-13546-0 SEA.

We are also unaware of any SEPA review by WDFW evaluating the impacts of the Sol Duc Hatchery raceway expansion referenced above and in the DNS. This action must be evaluated in an EIS evaluating the cumulative impacts of the SRKW Initiative.

Before WDFW reviews specific projects undertaken under the SRKW Initiative, it is legally required to perform SEPA review on the plan governing those actions. Review of discrete project action is not a substitute for the required SEPA review of “nonproject actions,” including the adoption of “any policy, plan, or program that will govern the development of a series of connected actions.” WAC 197-11-704(2)(a). Indeed, SEPA requires agencies to analyze potential environmental consequences at the “earliest possible stage” of the planning process, so decisionmakers are informed of the environmental consequences of a proposed action “before the project picks up momentum, not after.” *King County v. Wash. State Boundary Review Bd.*, 122 Wn.2d 648, 663-34, 860 P.2d 1024 (1993) (emphasis in original); see WAC 220-600-040(3) (WDFW rule requiring that SEPA procedures be initiated early in the planning process).

Since WDFW has still not performed that SEPA review on its plan for the SKRW Initiative, it is required to do so now, before it considers changes to the Sol Duc Hatchery that are part of that plan. Its failure to perform this fundamental analysis renders WDFW’s consideration of the Sol Duc Hatchery Weir Permanent Replacement premature, illegitimate, and illegal, and is likely to lead to yet more litigation.

## **WDFW’s Analysis in the Sol Duc Hatchery DNS is Flawed and Incomplete**

### *Failure to Consider Weir Impacts on Spawner Distribution & Productivity*

The DNS is not supported by the information provided in the checklist because the checklist includes incomplete information. For example, the checklist acknowledges the need to assess fish passage, but omits the fact that weirs are known to impede upstream and/or downstream fish migration causing negative impacts to wild fish populations (Murauskas et al. [2014](#); NOAA [2017](#)). WDFW (2020) found the unintended impacts of weirs can include displaced spawning, fallback, increased injury or mortality due to handling effects, and changes to redd distribution.

Without acknowledging the associated negative impacts, WDFW claims that fish passage will be assessed at an undetermined future date (Checklist, Sec. 5.d), but provides no documentation of what monitoring will occur, at what frequency, what data will be evaluated and/or future adaptive management. To date, weir impacts on fish passage have not been properly monitored in Washington State hatcheries. In the single Washington population with adequate before and after weir implementation data to evaluate the

effects of weirs (the Coweeman River), WDFW scientists concluded weirs were associated with unintended negative impacts on spawner distribution and productivity. The authors state these adverse impacts may undermine recovery efforts and offset the intended benefits of weirs to wild fish populations and recommended a broader assessment of the intended effects of weirs in other locations (Wilson and Buehrens, 2021).

The Checklist clearly acknowledges that if the Sol Duc weir is found to “be lacking” (Checklist. 5.d) (presumably meaning, if the weir is found to negatively impact wild fish) no immediate funding is available. Therefore, these potentially significant negative impacts would continue perpetuating harm to wild fish populations until and if funds are solicited and obtained from the legislature. The fact that the Department is also acting to expand hatchery production of Chinook salmon at the Sol Duc Hatchery by one million fish, further increases the likelihood and scale at which these impacts may occur.

Given the weir replacement will be permanent under this proposal, a comprehensive analysis of all potential weir impacts on wild fish populations must be completed before WDFW implements the weir replacement as planned. This evaluation must include impacts associated with the planned expansion of the Sol Duc Hatchery to produce hatchery Chinook for the SRKW Initiative. The weir replacement will impact the migration and productivity of wild fish populations and therefore WDFW must prepare an EIS on the SRKW Initiative that includes evaluation of the Sol Duc Hatchery Permanent Weir Replacement.

#### *Failure to Consider Weir Impacts on wild fish genetics*

The DNS is also incomplete because it fails to evaluate negative impacts to wild fish associated with the use of the Sol Duc Hatchery Permanent Weir replacement to control the percentage of hatchery spawners (pHOS). Weirs are a primary tool used by WDFW to manage pHOS in Washington hatcheries, however weirs have not proven to be consistent or effective in reducing pHOS to meet program objectives.

For example, WDFW (2020) evaluation of Washington hatchery programs found:

“Thus, the overall picture is that the effectiveness of weirs at controlling pHOS is highly dependent on river conditions, site specifics and operational details. Despite apparent successes in SE Washington, most examples from Washington failed to achieve project goals and weirs have not proven consistently effective at controlling pHOS at a widespread scale.”

WDFW (2020) recommends that in cases where weirs are used as a tool to manage pHOS, “critical review of design features and river conditions affecting catch efficiency is warranted.”

As another example, in most years, weirs used in the Lower Columbia River were not able to achieve pHOS levels identified as necessary to ensure long-term viability of wild populations by the Hatchery Science Review Group in the Lower Columbia River Recovery Plan (LCFRB 2010). This was despite multiple weir designs and attempts to improve recruitment (Wilson and Buehrens, 2024).

The DNS omits any evaluation or mention of the potential genetic impacts to wild fish associated with pHOS levels that the weir is intended to manage. Best available scientific data demonstrates that weirs alone may not be sufficient to reduce pHOS to target levels. WDFW must include an evaluation of pHOS for the Sol Duc Hatchery and all other hatcheries that are a part of the SRKW Initiative by preparing an EIS to cumulatively evaluate the impacts of that larger initiative.

*Failure to Consider ESA-Listed Fish Species*

Severe wild fish declines in the watersheds of Olympic Peninsula demand a thorough evaluation of the environmental impacts, especially as steelhead in the area are being considered for listing under the Endangered Species Act and a decision regarding the listing by NOAA Fisheries is imminent.

WDFW's failure to evaluate the more than moderate impacts of the Sol Duc Hatchery Weir Permanent Replacement on wild fish, improper segmentation of SEPA review, and refusal to perform any SEPA review on the SKRW Initiative, are violations of SEPA.

TCA and WFC would prefer to work with WDFW to correct these violations through the administrative process, rather than by continuing to expend our resources litigating these issues. We should not have to take the agency to court to persuade it to comply with the law.

Thank you again for the opportunity to provide comments.

Sincerely,



Emma Helverson  
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David Moskowitz  
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The Conservation Angler

Cc: Washington Fish and Wildlife Commissioners

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