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Department of Ecology
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Re: Comments of the Washington Water Trust on Ecology's Interim Guidance for Determining Net Ecological Benefit for Streamflow Planning and Mitigation Projects (Guidance).

Dear Ms. Sawabini,

Washington Water Trust (WWT) is a non-profit which for over 20 years has used voluntary, market-based transactions and cooperative partnerships to improve stream flows, protect water quality, and facilitate sustainable water management practices throughout Washington State. We lease and buy water from water rights holders, temporarily or permanently to improve and protect flows, especially during periods that are critical to imperiled salmon and steelhead. As our recent work in the Dungeness and the Yakima basins has shown, at the right time, at the right place, even a small amount of water left instream can have an immensely positive impact.

WWT thanks Ecology for opportunity to comment on its Guidance (Guidance) for Net Ecological Benefit (NEB). WWT recognizes that Ecology has a very difficult task in implementing ESSB 6091 and formulating a workable standard for NEB to inform its duty to assess the Section 301 pilot projects and the proposed projects and plans of Section 202 and 203 watersheds. Interpreting the NEB standard and calculating compliance with NEB will also be the duties of watershed planning units and committees (units)¹ which makes Ecology's Guidance even more important. WWT is committed to helping Ecology craft and implement a NEB standard that reliably and timely achieves its stated goal of offsetting *and* exceeding the projected impacts from new water use² within a geographically meaningful area.

¹ For simplicity, WWT refers collectively to both watershed planning units under Section 202 of ESSB 6091 and watershed planning committees under Section 203 as "units."

² WWT uses the term "new water use" to include projected permit exempt wells under Sections 201, 202 and 203, as well as all other future consumptive uses anticipated to occur within those watersheds over the next 20 years. As explained below at page 3, WWT's construction of "new water use" is consistent with how ESSB 6091 directs NEB to be assessed in Sections 202(4)(c) and 203(3)(c) and common sense. *See also* Section 203(3)(3)(requiring plans to include "estimates of the cumulative consumptive water use impacts over the subsequent 20 years, *including withdrawals exempt from permitting under RCW 90.44.050.*")(emphasis added).

I. General Comments

Establishing a baseline and providing specific, reliable technical direction

WWT is well-aware that Ecology has a difficult task in fleshing out and implementing a NEB standard that offsets and exceeds projected impacts from new water uses across very different watersheds. WWT believes that a truly ecologically beneficial NEB standard will not be met unless Ecology demonstrates leadership immediately, at the beginning of the roll-out of the Streamflow Restoration Act program, to ensure the overall technical integrity of plan-level and project-level NEB evaluations and determinations. WWT recognizes Ecology's deference to the judgment of units to develop local strategies and solutions given the variety of local conditions in WRIsAs. Nevertheless, science and facts matter, and at the end of the day Ecology will be required to render its decisions on whether plans and projects pass muster. WWT strongly encourages Ecology to provide the technical tools and capabilities up front to help units produce technically sound projects and plans based upon the best available science which reflects existing and projected conditions over the 20-year planning period. Furthermore, WWT also recommends that Ecology clarify that units enjoy broad discretion to "connect the dots" between the ESSB 6091 planning work and other relevant work in the same watershed to promote effective water resource management, salmon recovery, flood risk management, drought preparedness, and similar undertakings.

The Guidance aptly stresses that "[i]nformation on local conditions is crucial to understanding how to achieve NEB for individual watersheds."³ It also points out that "NEB evaluations should make use of *available* information on watershed-specific factors including: hydrogeology, stream flow conditions, fish populations and life histories, current habitat conditions, water use demand, and local salmon-recovery efforts." WWT wholeheartedly supports Ecology's focus on comprehensive assessment of local conditions and suggests that Ecology also add basin-wide assessments of water rights and current consumptive use estimates of those rights to the list. But WWT is also concerned that the requisite information is not always "available."

Many watersheds face data and expertise gaps which could impair units' abilities to make comprehensive assessments of local conditions—the building blocks of scientifically-valid NEB determinations. To fill that gap, WWT urges Ecology to provide detailed direction on the technical studies, assessments, methods and approaches that units should employ to support their plans, proffered projects and NEB assessments. Moreover, as WWT urged in its comments on proposed Chapter 173-566 WAC ("draft rules"), conducting the studies needed to fill information gaps in watersheds should be the top priority in the initial ESSB 6091 funding rounds. If Ecology fails to help units identify their information gaps and help them fund the technical work to fill those gaps early in the roll-out of ESSB 6091, units will likely produce plans and propose projects that fall short of the NEB standard. Clarifying expectations up front is more respectful of the hard work units will undertake in crafting plans and projects, and will be more defensible, if Ecology disapproves a project for falling short of NEB standards.

³ Guidance at 2 (emphasis added).

WWT encourages Ecology to revise the Guidance⁴ (and the draft rules) to clarify that projects are more likely to be funded if they align with plans grounded upon scientifically defensible baselines of present consumptive uses, total water supply, current water supply shortfalls (including of instream flows), current habitat conditions and limitations, and the effectiveness of past and ongoing restoration efforts. With these fundamental baselines, the projections required to assess NEB will have a sturdier, defensible foundation.

Expanding the NEB analysis beyond consumptive domestic use.

WWT strongly recommends that Ecology encourage units to broaden the scope of the planning process to encompass all projected consumptive uses in the planning units over the planning period, *including but not limited to new domestic exempt wells*. The NEB analysis according to ESSB 6091 is Ecology’s determination “that actions identified in the [watershed] plan, after accounting for *new projected uses of water* over the subsequent 20 years, will result in a net ecological benefit to instream resources within the WRIA.”⁵ Despite the statute’s unqualified use of the phrase “new projected uses of water”, Ecology’s Guidance uses a construction of the term “water use” that appears to limit its NEB analysis to consumptive domestic use from permit exempt wells.⁶ WWT recommends that Ecology hone closely to the language of the statute which makes new domestic wells one of the “new projected uses of water”, but not the exclusive one. The Guidance should be revised to estimate *all* projected future consumptive uses in NEB analysis—including future public water supply use and non-domestic permit exempt wells—otherwise Ecology risks imperiling instream resources and thwarting the Legislature’s stated purpose.

Water Scarcity, Climate Change, Drought Resiliency, and NEB Analysis.

Washington is increasingly a water scarce state, as underscored by the two Washington State Supreme Court decisions that created the impetus for ESSB 6091. We face and will continue to face hard choices in allocating future water use as we try to accommodate new growth while preserving and enhancing instream flows. In the 29 watersheds that have instream flow rules, minimum flows necessary to protect fish and wildlife are all too often not met. Most of Washington’s watersheds lack instream flow rules—leaving those watersheds essentially unprotected. Overlaying this concerning picture is the specter of climate change and more frequent droughts. Climate change is already changing water supply patterns in Washington: in general, causing warmer, rainy winters and drier summers. When Ecology performs its NEB analysis, it should strongly encourage units to factor in the projected impacts of climate change in the next 20 years on instream resources in the watersheds subject to ESSB 6091. The Guidance should be revised to make this clear. To do otherwise will leave instream resources vulnerable to over-appropriation from future consumptive uses, including permit exempt wells.

⁴ If need be, WWT encourages Ecology to embark on narrowly-focused rule-making to define the baseline information units need to make NEB determinations.

⁵ Section 202 (4)(c) (emphasis added).

⁶ See ESSB 6091 Recommendations for Water Use Estimates (March 2018) at page 1 “Scope of water use.”

Best Available Science and Monitoring NEB:

Ecology should employ, and help units utilize, best available science for all proposed projects, and for its NEB analysis for Section 202 and 203 watershed plans. Indeed, if basic hydrological information grounded in science is not available, as previously mentioned, development of such data should be the priority for funding under the Streamflow Restoration Act.

For example, projecting and quantifying future domestic permit exempt use is a fundamental component of NEB analysis. WWT is concerned that if units rely on rough estimates of projected domestic use, as suggested in ESSB 6091 Recommendations for Water Use Estimates (March 2018), units' projects will not offset impacts to instream resources or address future consumptive demand. Better data are available. For example, WRIA 55 (Little Spokane) has developed subbasin specific data on current and projected consumptive use (including from permit exempt wells) as part of its drought resiliency planning. Moreover, projections of new wells must be tied to water sources on a tributary level. That is the type of analysis WWT performed to inform development of the Dungeness Water Exchange. To do otherwise creates the real risk of some tributaries running dry.

Finally, implementation of ESSB 6091 will occur over years and sequential funding cycles. To assess whether the Section 301 pilot projects and the proposed projects and plans of section 202 and 203 watersheds are achieving NEB, Ecology should require or undertake monitoring of how well projects meet NEB over time. Such monitoring should utilize Physical Habitat Simulation, or comparable best available methods, to ensure that a project ultimately produces measurable habitat improvements. Some seemingly worthy projects may receive funding but prove to be less effective than predicted in implementation. Monitoring of project effectiveness is essential to avoid repeatedly funding ineffective or less-worthy projects and to optimize use of public dollars consistent with the purposes of ESSB 6091.

II. Specific Comments

Element 1. Characterize and quantify potential impacts to instream resources from the proposed 20-year new domestic permit-exempt water use at a scale that allows meaningful determinations of whether proposed offsets will be in-time and/or in the same subbasin.

WWT strongly supports the emphasis the Guidance puts on quantification of the consumptive water use projected over the next 20 years. However, as previously mentioned, domestic permit exempt wells are but one type of new water use that ESSB 6091 requires to be factored into NEB determinations. The Guidance should be corrected to track the statute to protect instream resources and long-term water supply.

We applaud Ecology's approach of calculating the quantitative use by "suitably-sized" subbasins or sections of subbasins.⁷ Residential development is often clustered in portions of a watershed due to zoning

⁷ WWT encourages Ecology to provide units with clear parameters as to how to draw "suitability sized" subbasins or sections of subbasins. Those suitability sized areas need to be correlated with the hydrograph—meaning the sources

restrictions, critical area ordinances, and infrastructure issues, among other factors. The localized impacts of residential development make Ecology’s focus on suitably-sized subbasins or sections of subbasins appropriate. The Guidance would be more useful if Ecology encouraged units to work with local planners to pinpoint where residential growth is anticipated to occur within the suitably-sized subbasins or sections of subbasins because that is where the projected impacts will occur. WWT further urges Ecology to overlay on these basins or subbasins its best hydrological understanding of water sources to ensure that water is available for new wells within a tributary or reach.

We note that the request for quantification of future consumptive use from permit exempt wells that undergirds Element 1 is couched in language such as “where information is readily available” or “if [data is] available” and where it is not, units need only “provide generalized information.”⁸ We reiterate our concern that this upcoming round of watershed planning will not result in technically defensible projects that achieve NEB without helping units develop the requisite baseline data.⁹ Moreover, if units only roughly estimate future permit exempt consumptive use, they will be hard-pressed to offset or mitigate for the “timing or location of impacts,” “sensitivity of individual streams to new withdrawals,” and the “proportion of flow impacted:”¹⁰ the fundamental analysis required by ESSB 6091.

Element 2: Describe and evaluate individual offset projects.

A. Water Offset Projects.

“**Wet Water**”. For over 20 years, WWT has set the bar for expedient but thorough assessments of water acquisitions. The Guidance fails to explain how and when extent and validity assessments, which are crucial to acquisitions, must be made for proposed projects in plans. Will Ecology require that units ensure that the projects being proposed contain “wet water?” How should units pay for those evaluations? Will Ecology reimburse project proponents for those costs if the acquisition proposal is accepted? The Guidance (or Ecology’s final implementing regulations for ESSB 6091) should set forth criteria for when and how the extent and validity of water acquisitions and state whether assessment by a Certified Water Rights Examiner is required for a proposed project BEFORE it is included in a plan or submitted to Ecology for possible funding.

of water. Without a sufficiently discrete water rights assessment, units could assume that they have access to water sources within another WRIA.

⁸ Guidance at 4.

⁹ Ecology has tried to help units compensate for the lack of baseline information in some watersheds by suggesting methods to estimate future consumptive use by permit exempt wells in its ESSB 6091 Recommendations for Water Use Estimates (March 2018) (Recommendations). Confusingly, the Recommendations include methods that Ecology deems “less reliable.” If units use this less reliable method, are they at greater risk of having their plans rejected by Ecology? Again, clearer direction from Ecology up front will avoid problems later.

¹⁰ Guidance at 4.

A Precise Water for Water Standard.

It is only when rivers and streams are failing to meet minimum instream flows or are closed that mitigation is required. Mitigation is needed where there is insufficient water to protect fish and wildlife. Hence, when WWT acquires mitigation water, we always procure water over and above the projected new use to provide some restoration water in anticipation of climate changes: usually at a 1:2 or 1:3 buckets ratio. Ecology could establish a preference in the Guidance that water for water projects achieve at least a 1:2 buckets ratio. Moreover, mitigation science is inexact at best: a 1:2 or 1:3 buckets ratio provides a cushion for temporal and hydrogeological lag. Additionally, drier summers are expected as the impacts of climate change intensify. For all these reasons, Ecology should indicate in the Guidance that water for water projects achieving at least a 1:2 buckets ratio will be more durable and likely to meet the NEB goal.

Allowing Sufficient Time and Resources to Develop Non-Acquisition Water Projects.

The Guidance also encourages non-acquisition water offset projects, such as shallow aquifer recharge, but aptly notes that “calculating the benefits may be more complicated...” WWT has significant experience planning and implementing five aquifer recharge projects in the Dungeness basin and is working on two additional ones. Initial planning and site location began five years ago in 2013 and substantial development funds were required. The recharge projects could not have been done without an excellent hydrogeologic model, land acquisition, and on the ground data collection, among other hidden costs, to determine where the projects should be located for the best instream impact. In short, aquifer recharge projects require excellent underlying science and time to plan...not to mention funding for both.

While WWT greatly appreciates Ecology’s inclusion of non-acquisition water offset projects in the Guidance, we are concerned that the complexity of these projects—and lack of funding for the modeling and planning work they require—will mean that units shy away from pursuing them—despite their effectiveness at addressing water shortfalls where water acquisitions are not available.¹¹ To encourage units to explore and propose water offset projects, the Guidance should lay out how units should identify and fund the technical information required to assess these projects and propose a phased evaluation protocol over a realistic timeframe consistent with the deadlines in ESSB 6091. If Ecology does not do so, units may be deterred from proposing non-acquisition water offset projects.

Lower Priority Projects.

WWT appreciates that the Guidance makes it clear that Ecology will only consider lower priority projects, those in another basin or tributary than the impact or which exclusively address fish critical flow periods, *only* where higher priority projects are “not feasible.”¹² WWT recognizes that Ecology needs flexibility in

¹¹ WWT notes the usual source of water acquisitions is unused or old irrigation rights. On the west side of the Cascades, where all but one of the ESSB 6091 watersheds are located, unused irrigation rights are very scarce—which makes Ecology’s facilitation of non-acquisition projects crucial to mitigating the new permit exempt wells authorized and contemplated by ESSB 6091.

¹² Guidance at 6.

assessing when a higher priority water project is infeasible. Nevertheless, based upon its experience, WWT suggests that, at a minimum, Ecology require lower priority project proponents to demonstrate infeasibility with a solid water rights availability assessment.

Finally, the Guidance states, [t]o determine the viability of a lower priority water offset project, planning groups will need to determine critical flow periods...[including] fish presence and distribution, and the historic hydrograph (synthesized hydrograph if necessary). " Again, WWT raises the "cart before the horse" problem created by Ecology's preference for shovel-ready projects, without first encouraging or directing units to first gather fundamental baseline data.

B. Non-water Offset Projects

WWT thanks Ecology for clearly stating, consistent with ESSB 6091, that non-water offset projects must be *in addition* to water offset projects that units include in their plans to offset projected consumptive uses.¹³ What is unclear from the Guidance is how non-water offset projects should be factored into a plan's NEB determination, and under what circumstances Ecology will consider funding non-water offset projects for a funding cycle. For example, will non-water offset projects only be considered for funding after all mitigation-based projects in all ESSB 6091 watersheds are fully funded?

Description of All Water and Non-Water Offset Projects

WWT notes that the science for ascertaining the benefits to instream flows from non-water offset projects, and how these actions compensate for instream flow impacts, is complicated and inexact. Measurable results can lag well behind project completion. Nor are all restoration projects equally effective or equally measurable: for example, dam barrier removal results in rapid recolonization while the effectiveness of instream restoration is more difficult to ascertain. Ecology suggests that plans include metrics and monitoring plans for evaluating success.¹⁴ Monitoring should be required by units to ensure that NEB is achieved and funded by Ecology. Ecology should consider adopting procedures to defund projects that fail to provide the anticipated mitigation or NEB. Otherwise, there is a risk of wasting significant public dollars for insignificant instream benefits.

In addition, projects and planning under ESSB 6091 are not happening in a vacuum. Project proponents and units should be required to identify and coordinate with other federal, tribal, state, and local efforts to improve streamflow and aquatic habitat—such as culvert removal—to ensure the best possible ecological outcomes for the expenditure of public dollars.

¹³ Guidance at 6. See Section 202(4)(b) and 203(3)(b).

¹⁴ Guidance at 7.

Element 3: Explain how the planned projects are linked and coordinated with other existing plans and actions underway to address factors impacting instream resources.

Ecology rightly directs units to coordinate with other watershed and habitat restoration planning, as well as existing land use regulations. Because NEB is a 20-year projection, the Guidance should add integration of comprehensive plans and regional planning documents.

The Guidance appropriately points out that planning efforts are likely to be more fruitful if they build on previous efforts and collaborate with partners. The Guidance should include examples of the partners that Ecology believes could benefit units' efforts. The Guidance should, moreover, require units to coordinate and consult with tribes within each WRIA, even if tribes decline to participate as unit members.

Element 4: Provide a narrative description and quantitative evaluation (to the extent practical) of the net ecological benefit of the plan.

WWT applauds Ecology for the solid initial direction the Guidance provides as to what plans must contain for the NEB analysis but reiterates that the plan components Ecology identifies will only be meaningful if backed up with best available baseline data and assessments. Unless units use the best available data and assessments, that are comparable across the ESSB 6091 watersheds, units could effectively create their own, and very different, NEB standards. NEB could effectively be a watershed by watershed determination—and potentially unhinged from a uniform baseline of scientific understanding and data.

Elements of NEB Analyses in Section 301 Pilot Project Proposals.

WWT urges Ecology to elaborate on what standards the proponents of the Section 301 projects should employ to “demonstrate that water offset projects were not reasonably attainable.” What factors will Ecology use in assessing what is or is not “reasonably attainable?” Possible factors include: cost, geography, time to perform required studies and assessments, permitting time frames, the time for extent and validity evaluations...the list could be quite substantial. Clarification is needed.

The Guidance further provides that “[a]ll consumptive uses to instream uses must be quantified.” Again, WWT encourages Ecology to specify the best available scientific methodologies Section 301 project proponents should employ to provide the best estimate of quantified consumptive uses in a watershed and to make the NEB analysis. These NEB analyses will only be as good as the underlying data—and Ecology's technical expertise is needed to set the baseline standards.

Thank you again for the opportunity to submit comments in to the Guidance. We look forward to working with you in implementing the Streamflow Restoration Act.

Very Truly Yours,

A handwritten signature in cursive script that reads "Suzanne Skinner".

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