WASHINGTON WATER TRUST
Working to restore our state's rivers and streams.

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Annie Sawabini
Department of Ecology Water Resources Program
PO Box 47600
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Re: Comments of the Washington Water Trust on Preliminary Rule for the Proposed Amendment to WAC Chap. 173-501, the Nooksack Rule.

Dear Ms. Sawabini:

Washington Water Trust (WWT) thanks the Department of Ecology (Ecology) for the opportunity to comment on preliminary rule language for Chap. 173-501 WAC Instream Resources Protection Program—Nooksack Water Resources Inventory Area (WRIA 1) ("the amended rule"). WWT is an independent nonprofit which for over 20 years has used voluntary, market-based transactions, and cooperative partnerships to improve stream flows and protect water quality throughout Washington state. We lease and buy water from water rights holders, and design and implement water projects, such as managed aquifer recharge facilities, to improve and protect flows and water quality, especially during periods that are critical to the survival of imperiled salmon and steelhead. WWT is dedicated to improving instream flows for fish and wildlife, and ensuring sustainable water for human needs in the Nooksack watershed. WWT strongly supports Ecology's efforts to protect, restore, and enhance streamflow, and to mitigate impacts of future permit exempt wells on instream flows in the amended rule.

Before providing its comments, WWT wants to express its appreciation to the members of the Nooksack Watershed Planning Unit and Ecology staff for their work on the amended plan and the amended rule in light of the extremely short deadlines the Legislature created under the Streamflow Restoration Act (SRA), Chap. 90.94 RCW.

Withdrawal Limits and Metering

WWT commends Ecology for proposing a conservation standard that limits indoor use, restricts outdoor irrigation to 1/12 of an acre, and allows for interruption to respond to drought emergencies. However, in a watershed like the Nooksack which is plagued by "low flows during the dry summer months, when human use is the highest and fish are returning to streams to spawn,"[1] Ecology can and should do more. As Ecology

[1] Rule Supporting Document, Amendment to Chapter 173-501 WAC Instream Resources Protection Program-Nooksack Water Resource Inventory Area (WRIA) 1, ("Supporting Document") at 9.

documents[2], these seasonal low flows impact threatened and endangered salmonids, as well as other species. Moreover, based upon its experience in the Dungeness Basin, WWT believes that Ecology can adopt more stringent limits[3] without any significant impact to future human needs and uses.

In the amended rule, Ecology proposes daily indoor limits of 500 gpd plus an unquantified outdoor limit on 1/12 of an acre. WAC 173-501-065(5). WWT operates the Dungeness Water Exchange, a water bank that WWT established in collaboration with Clallam County, Jamestown S'Kallam Tribe and Ecology. The Exchange has supported some new sustainable water allocations in the basin while restoring flows in the Dungeness watershed. In administering the Exchange, WWT sells "packages" of new water use from its bank for domestic uses and associated irrigation. The largest package available in the Dungeness is 200 gpd and includes outdoor use. WWT has found that used efficiently, that largest package not only can serve a household but also irrigate one acre of garden. That 200 gpd is obviously far less than the 500 gpd plus unlimited water for 1/12-acre Ecology proposes for the Nooksack. Moreover, in the Dungeness, WWT has discovered that the actual average use with irrigation is 118 gpd.

Based upon its experience in the Dungeness, WWT believes that Ecology can reduce the indoor domestic limit and add a quantity limit for outdoor use in the amended rule to keep more water instream while still meeting human needs.

WWT also notes that Ecology has declined to require metering in the amended rule. WWT believes that this is a mistake. Metering is required in the Dungeness. Ecology's reticence to require metering in the Nooksack may be because of presumed community opposition. Certainly, some residents of the Dungeness had objections raised to metering. But many of those objections have faded over time, and the adoption of cellular metering makes metering cheaper and easier to implement, while respecting privacy.

Objections to metering aside, WWT has observed that metering facilitates compliance with Dungeness rule's withdrawal limits—even without enforcement. Metering enhances people's recognition of the value of water. That recognition encourages people to conserve and value water both instream and out-of-stream. WWT hopes that Ecology will reconsider and require metering in the amended rule.

Consumptive Use Impacts.

Ecology projects an aggregated consumptive use impact of indoor and outdoor use for the nine Nooksack subbasins of 260 acre-feet per year.[4] That number also establishes the target for mitigation across the WRIA. WWT is concerned that an annualized average for outdoor irrigation fails to account for the seasonal spike in irrigation during the summer months—which coincides with low flow periods critical to fish and wildlife. WWT encourages Ecology to supplement the annual consumptive use estimates with monthly estimates for the critical summer months. With such information, Ecology can better assess whether the mitigation target is sufficient and how to respond if it is not.

WWT recognizes that Ecology is employing the multiplier of 1.5 to account for uncertainties.[5] Arguably, the

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[2] *Id.*

[3] The SRA gives Ecology the authority to adopt withdrawal rules that are stricter than the SRA and RCW 90.44.050. RCW 90.94.020 (4)(d)(i) & (7)(a).

[4] Application of the multiplier increases the aggregated consumptive use impact and target number for basin-wide mitigation to 390 acre-feet annually. Supporting Document at 13-14.

[5] WWT notes that Ecology intends the multiplier to address the full range of uncertainties implementation of the SRA creates: future growth, consumptive use impacts from permit exempt wells, water quantity offsets from projects that may or may not be

increased irrigation water consumed during the summer months could be accounted for by the multiplier. However, where data can be provided it should be because there are so many uncertainties.

The mitigation required by the SRA is supposed to last not just 20 years but in perpetuity. The irrigation estimates Ecology relied on in the Supporting Document reflect crop irrigation requirements published in 1985, based upon weather data from 1951-1985. Given the hotter, drier summers that Western Washington is experiencing, and which are only projected to intensify with time, those old crop irrigation requirements likely underestimate current and future crop requirements.

WWT encourages Ecology to develop and employ all available data on consumptive use impacts.

Retiming High Flows to Restore Streamflows (Water Storage Projects).

Ecology proposes to amend 173-501-070, governing exemptions, to add a provision to allow withdrawals of water during high flow periods essentially for the purpose of hydrating managed aquifer recharge projects.[6] Managed aquifer recharge (MAR) projects, if properly located, show great promise in retiming water releases to augment flows that fall below minimum instream flows. WWT strongly supports adoption of this amendment to enhance streamflows. And Ecology is appropriately requiring studies to support suggested MAR projects.[7] However, as WWT pointed out in its comments the Draft Streamflow Restoration Act Funding Rule, MAR and similar storage projects, while very promising, require long planning horizons with feasibility studies and complex permitting. In Ecology's Preliminary Regulatory Analyses for the Streamflow Restoration Funding Rule[8], Ecology specifically declined to fund feasilbity studies for MAR and other such projects through the SRA. Ecology instead pointed to Planning and Participation Grants and other sources in its operating budget. Realistically, whatever funds will be available for technical studies will be relatively small. WWT is very concerned that without sufficient Ecology funding for feasibility, habitat, toe-width, and other required studies—irrespective of the funding source—MAR and similar water storage projects will not get off the ground despite their promise to significantly improve the hydrograph in water scarce areas.

Adaptative Management and Net Ecological Benefit.

The SRA tasks Ecology and watershed planning units and groups with a near impossible task: projecting future consumptive use from domestic permit exempt wells, designing and implementing projects to offset that use, and achieving net ecological benefit (NEB). Ecology appropriately proposes adaptive management. Adaptative management is perhaps the only means by which Ecology can determine meet NEB.

But what is also needed is more basic science to establish the current conditions for the Nooksack, and to project temporal and spatial impacts of new domestic permit exempt wells and the projected benefits from projects. As Ecology recognizes "[a] straight comparison of the pumping impacts, flow offset strategies, and habitat projects with WDFW's fish and habitat conservation units is not possible since the location of areas affected by the pumping are not fully defined and often fall within multiple habitat conservation areas."[9] WWT appreciates that Ecology has chosen potential projects in the upper tributaries on the assumption that

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funded, benefits/mitigation from such projects over time and geography, and net ecological benefit in perpetuity in the face of climate change. One can only hope that a 1.5 multiplier will prove enough. Therefore, as previously mentioned, WWT encourages Ecology to use real data where it can.

[6] Supporting Document at 13.

[7] *Id.*

[8] *See* Section 6.3.4 Feasibility Studies and Assessments.

[9] *Id*. at 38.

the benefits will flow downstream to the lower watershed where the greatest growth will occur. That is logical. But that logical assumption needs to be validated with the best available science that addresses the temporal and spatial assessment of impacts and benefits on flows and salmonid distribution. Real adaptive management to achieve NEB depends on better science than we currently have. WWT will join in every effort Ecology makes to increase funding for that critical science.

Thank you for your consideration of these comments.

Very Truly Yours,

Suzanne Skinner
Senior Advisor/Board Member