



May 10, 2019

*Submitted online via
Washington State Department of Ecology website:
<http://ws.ecology.commentinput.com/?id=GFRjc>*

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Re: Amendment to Chapter 173-501 Instream Resources Protection Program –
Nooksack Water Resource Inventory Area (WRIA) 1 to implement Chapter 1,
Laws of 2018 (ESSB 6091) and Chapter 90.94 RCW

Ecology's proposed rule and rule supporting document for the Nooksack River basin must do more to ensure that the newly authorized groundwater withdrawals and proposed offsets do not further harm already imperiled populations of chinook salmon and the Southern Resident orca population that depends on them. We support lower groundwater withdrawal limits and encourage Ecology to set limits as low or lower than in the proposed rule. We urge Ecology to ensure that the proposed rule adequately protects chinook salmon populations by considering additional offset projects (including conservation) that would address downstream reaches of the Nooksack River basin and tributaries. And we urge Ecology to create accountability by requiring metering and reporting for withdrawals and binding requirements that offset projects actually occur.

I. Background

The Nooksack River basin is home to two populations of chinook salmon that are listed as endangered under the Endangered Species Act and are at historically low numbers. Both populations migrate to the ocean through the Nooksack River basin beginning in the spring and in following years return in spring to spawn in late summer. Over one-third of chinook juveniles in the Nooksack spend a year maturing upstream before migrating out to the ocean, making freshwater habitat particularly important. Historically, 39,000 adult wild chinook salmon migrated through the Nooksack River basin, but in 2004, their numbers fell to 443, or 1.1% of historic populations.

The decline in chinook salmon population is largely due to decline in suitable habitat. Low water flows reduce and degrade available habitat. Low flows also cause temperature increases that make existing habitat unsuitable for survival in summer months and will become worse with climate change.

The decline in chinook salmon populations in the Nooksack also impacts the survival of critically endangered Southern Resident orca whales. The primary threat facing the Southern

Resident population is lack of prey, and specifically lack of chinook. Recovering the Nooksack runs of chinook would provide a badly needed increase in prey availability, and such recovery will only be possible if Ecology protects flows in the Nooksack and all its tributaries.

Low water flows are an increasing problem throughout the state and in the Nooksack in particular. The recently-passed Streamflow Restoration Act allows new domestic groundwater permit-exempt well withdrawals notwithstanding availability of water. Additional water withdrawals will deplete already low flows in the Nooksack River basin. Approximately 72% of all wells in WRIA 1 are in basins closed either year-round or seasonally.

To offset these increased groundwater withdrawals, the new legislation requires the State to approve a watershed management plan with mitigation projects that provide a “net ecological benefit.” RCW 90.94.020(4)(a). Qualifying projects must not result in “negative impacts to ecological functions or critical habitat.” *Id.* At minimum, the watershed plan must include actions “necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use” and “[t]he highest priority recommendations must include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary” and may include “lower priority projects...not in the same basin or tributary and projects that replace consumptive water supply impacts only during critical flow periods.” RCW 90.94.020(4)(b). Ecology must determine that actions “will result in a net ecological benefit to instream resources within the water resource inventory area.” RCW 90.94.020(4)(c).

Pursuant to these requirements, Ecology proposed amendments to the Washington Administrative Code (“WAC”) with lower groundwater withdrawal limits for WRIA 1, a list of mitigation projects considered by the WRIA 1 planning group, and adaptive management. Amendment to Chapter 173-501 WAC, Instream Resources Protection Program – Nooksack Water Resource Inventory Area (WRIA) 1, Preliminary Draft Rule Language for Public Comment, April 8 – May 10, 2019 (hereinafter “Draft Amendment”); Rule Supporting Document, Preliminary Draft for Public Comment, April 8 – May 10, 2019 (hereinafter “RSD”).

II. Ecology’s Proposed Amendment and Rule Supporting Document

We support Ecology’s efforts to protect chinook salmon populations in the Nooksack under the proposed lower groundwater withdrawal limits in the Draft Amendment and mitigation in the Rule Supporting Document, and encourage Ecology to incorporate: (1) lower groundwater limits, (2) other mitigation projects that offset withdrawals in the lower reaches of the Nooksack and tributaries, and (3) greater accountability for both withdrawals and implementation of mitigation projects.

Based on estimated consumptive use over 20 years, Ecology set a daily maximum of 500 gallons per day (gpd) for single connection indoor domestic use and 3,000 gpd for a group domestic system, which includes a 500 gpd limit for each single connection in the group. Draft Amendment WAC 173-501-065(5)(g)-(j). Ecology also set limits on the area that groundwater can be withdrawn for outdoor domestic use at 1/12 of an acre for single connections and groups, which would increase the offset needed for indoor use by 32%. *Id.*; RSD, at 13. As a buffer, it applied a 150% safety factor. RSD, at 13-15. Ecology reserved the right under Draft Amendment WAC 173-501-065(k) to impose metering and reporting requirements.

Ecology recognized that highest groundwater withdrawals are often during peak temperatures in July and this is also when the lowest flow occurs in connected surface waters when fish are returning to streams to spawn. RSD, at 9. In its review, Ecology noted that during drought, some WRIsAs included a reduction of the individual limit for indoor use to 350 gpd. *Id.* The proposed rule curtails withdrawals during drought emergencies, except for domestic indoor water use and outdoor water use for gardening purposes. *Id.*

We support Ecology's decision to reduce the groundwater withdrawal limits in the proposed amendment and would support an even lower water limit, especially during peak temperatures. A daily maximum of 500 gpd is more than adequate for single-family use, and given the lack of available water in the Nooksack, 350 gpd would be a more appropriate limit at all times (not just during drought emergencies). During drought emergencies Ecology should consider limits that are lower still. We also support Ecology's decision to set these withdrawal limits at a daily maximum, rather than a maximum annual average, so that withdrawals for individual connections do not exceed 500 gpd (or even lower limits) in the hottest months. To ensure compliance with these daily limits, we encourage Ecology to create metering and reporting requirements before finalizing the rule, rather than wait until flows are even lower.

Under RCW 90.94.020(4)(c), Ecology must approve mitigation projects to offset the new groundwater withdrawals and provide a "net ecological benefit" to instream resources in WRIA 1. The WRIA 1 Planning Unit proposed 45 mitigation projects and Ecology put forward 13 of these projects under the Rule Supporting Document. RSD, at 23-31. Ecology chose projects based on existing funding, likelihood of achieving offset, location, feasibility, and partner willingness. *Id.* Ecology estimates based on estimated consumptive use for 20 years and a 150% safety factor, that the mitigation projects will yield a tenfold offset. RSD, at 40. These projects benefit upstream reaches of the watershed in the mainstem, which Ecology asserts will have downstream benefits. RSD, at 38-41. Ecology acknowledges that much of the increased groundwater withdrawal is expected to occur in downstream reaches of the watershed where significant population growth occurs, but these offset mitigation projects are not targeted at these downstream areas. RSD, at 39. According to the RSD, most of the offset projects are located in higher value salmonid presence and distribution areas. RSD, at 41. However, chinook salmon are present throughout the Nooksack at all life stages, especially at times when flow is the lowest.

Ecology must offset new groundwater withdrawals with projects that provide a "net ecological benefit"—meaning that the new withdrawals and offsets must together be better for salmon than leaving the water in place. Under RCW 90.94.020(4)(b), Ecology must prioritize projects that replace the quantity of water in the same time as the impacts occur in the same basin or tributary, but may include others as long as the actions will result in a net ecological benefit. We are concerned that the preliminary draft may not meet the "net ecological benefit" requirement because the mitigation measures Ecology proposes are spatially and temporally inadequate to mitigate the effect of anticipated new withdrawals, and moreover, are not certain to occur.

Ecology has not adequately supported its conclusion that the rule will provide a net ecological benefit to salmon when its own analysis shows that new withdrawals will deplete flows in portions of the river where salmon are present and additional water offset projects could

be developed in lower portions of the watershed where a majority of the consumptive use impacts are anticipated. Ecology should mitigate fully the consumptive use impacts in all affected streams, year-round and including drought periods, by increasing the number, magnitude, and/or location of project offsets, including consideration of location-specific conservation requirements in addition to (or, where appropriate, instead of) other offset projects. We encourage Ecology to consider a broader range of mitigation projects (including conservation) to ensure that they collectively offset the increased groundwater withdrawals with a “net ecological benefit” that is spatially and temporally adequate for instream resources in WRIA 1 before finalizing the rule.

Ecology should also consider incorporating other measures to ensure that the rule provides a significant net benefit to the already-imperiled Nooksack chinook runs. For example, since inadequate flows in the Nooksack contribute to increases in temperature that harm salmon, Ecology should consider additional projects that require riparian buffers in areas where they are lacking. Such projects cannot substitute for mitigation that replaces water in the time and place it is removed, but instead should be in addition to bucket-for-bucket mitigation projects. Such additional habitat projects are appropriate in light of the legislature’s command that the rule provide a net “benefit” to salmon.

Ecology must also do more to provide accountability and certainty surrounding withdrawals and mitigation. To ensure that projects produce a net ecological benefit that offsets new groundwater withdrawals, Ecology selected projects based on the likelihood of implementation and devised an Adaptive Management Approach that includes annual reporting from Whatcom County and 5-year self-assessments from Whatcom County and project proponents. However, we are concerned that these projects will not actually offset new groundwater withdrawals if mitigation projects do not occur or if withdrawals exceed the required limits. We encourage Ecology to impose metering and reporting requirements on groundwater withdrawals and require Whatcom County to include them in their annual and five-year reporting. Additionally, Ecology must ensure that the projects included as offsets will be completed, or otherwise create enforceable accountability measures ensuring that sufficient mitigation is mandatory and timely. Otherwise, new withdrawals could easily outpace mitigation.

III. Conclusion

Ecology must ensure that new groundwater withdrawals do not further harm already low populations of chinook salmon and the orca populations that depend on them. We encourage Ecology to set limits on new withdrawals that are lower than 500 gallons per day. We encourage Ecology to consider additional offset projects (including conservation) that are spatially and temporally adequate to protect chinook salmon throughout the Nooksack River basin and incorporate these projects into the final rule. We also encourage Ecology to incorporate additional projects that benefit salmon, to ensure that the rule provides the required net benefit. And finally, we ask Ecology to create greater accountability by requiring metering and reporting and creating legal mechanisms to ensure mitigation projects occur as intended.

Thank you for your careful consideration and efforts to protect instream resources in the Nooksack River basin.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paulo Palugod".

Paulo Palugod
Amanda Goodin
Attorneys for Earthjustice