

WASHINGTON STATE DEPARTMENT OF ECOLOGY
MEMORANDUM

Date: January 24, 2019

To: Maia Bellon, Director

From: Mary Verner, Water Resources Program Manager

Re: Recommendation to Adopt, with Conditions,
WRIA 11 (Nisqually) Watershed Plan Addendum

The Watershed Plan Addendum for the Nisqually Basin (WRIA 11 Plan Addendum) was approved by the WRIA 11 Planning Unit and submitted to Ecology on January 18, 2019. Under RCW 90.94.020(7)(b), the statutory deadline for Ecology to adopt the WRIA 11 Plan Addendum is February 1, 2019.

Through this memorandum, the Water Resources Program recommends that Ecology adopt the WRIA 11 Plan Addendum with certain conditions that are articulated below. This memo also summarizes the methodology and findings of the technical review (attached) that supports Ecology's conditional adoption of the WRIA 11 Plan Addendum.

Background

Minimum requirements for the WRIA 11 Plan Addendum are established in RCW 90.94.020(4)(b), which states that the plan:

... must include those actions that the planning units determine to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use. The 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. Lower priority projects include projects not in the same basin or tributary and projects that replace consumptive water supply impacts only during critical flow periods. The watershed plan may include projects that protect or improve instream resources without replacing the consumptive quantity of water where such projects are in addition to those actions that the planning unit determines to be necessary to offset potential consumptive impacts to instream flows associated with permit-exempt domestic water use.

RCW 90.94.020(4)(c) requires Ecology to “determine that actions identified in the watershed plan, after accounting for new projected uses of water over the subsequent twenty years, will result in a net ecological benefit to instream resources within the water resource inventory area.”

In June 2018, Ecology issued the “Interim Guidance for Determining Net Ecological Benefit for Streamflow Restoration Planning and Water Permit Mitigation Pilots Under the 2018 Streamflow Restoration Act” (Interim NEB Guidance). Our review of the WRIA 11 Plan Addendum to determine whether the requirements of RCW 90.94.020(4)(b) and (c) were met is based on both the statute and the Interim NEB Guidance.

Ecology plans to issue “Final NEB Guidance” no later than July 31, 2019. Future watershed plans completed under chapter 90.94 RCW will be evaluated using the Final NEB Guidance. Because evaluation of the WRIA 11 Watershed Plan Addendum is based on the Interim NEB Guidance that will be superseded by the Final NEB Guidance, this plan evaluation is unique and distinct from the approach that will be taken to evaluate watershed plans submitted to Ecology in the future.

Technical Review of WRIA 11 Plan Addendum

Ecology’s internal review of the WRIA 11 Plan Addendum documents was conducted by three senior technical experts, two of them senior hydrogeologists and one a senior fisheries biologist. All of these staff have a thorough understanding of RCW 90.94 requirements, as well as Ecology’s Interim NEB Guidance, and all of them bring substantial and pertinent knowledge and experience to this Plan Addendum review. In addition to the Plan Addendum documents, Ecology’s reviewers relied on other documents associated with the Nisqually watershed and salmon recovery efforts currently underway in the watershed that have goals similar to the stream restoration aspects of chapter 90.94 RCW.

A. Potential Consumptive Impacts to Instream Flows of New Permit-Exempt Domestic Water Uses

In the context of the required planning horizon of 20 years,¹ the WRIA 11 Plan Addendum identified, consistent with the Interim NEB Guidance, a range of consumptive use impacts (using different methodologies) for the projected 2,987 new permit exempt connections in the WRIA.

Name of WRIA 11 Calculation Method	WRIA-Wide Potential Impact (cfs)
Legal Limit	7.598
Ecology Guidance Method	1.03
Thurston PUD Data Source “Plan A and B”	0.439

Ecology reviewed the methodologies and embedded assumptions that the planning unit used to determine potential consumptive impacts to instream flows. The “Ecology Guidance Method” results in the sum of 1.03 cfs total WRIA potential consumptive impact. After review, we concluded that the “Ecology Guidance Method” represents the most reasonable forecast of consumptive water use that will occur from the pumping of new permit-exempt wells in WRIA 11. Consequently, our analysis of the WRIA 11 Plan Addendum uses 1.03 cfs as the “offset target.”

¹ This plan actually addresses 22 years because the materials available to the planning unit covered a period to the year 2040.

B. Recommended Actions to Offset the Potential Consumptive Impacts to Instream Flows of New Permit-Exempt Domestic Water Uses

The WRIA 11 Plan Addendum identifies 22 different actions (referred to as “strategies” in the document) to offset projected impacts of the projected new domestic permit exempt connections. The Plan Addendum provides varying levels of details and analyses of the potential for these actions to be implemented. This variability in detail is understandable given the very short timeframe permitted for this Plan Addendum to be compiled and submitted to Ecology. In fact, the WRIA 11 Plan Addendum describes its content as, “conceptual frameworks and quantification for priority habitat and other mitigation strategies that can both supply streamflow benefits and forward the goals of salmon recovery and sustainable community development.”

In light of the conceptual nature of much of the plan’s description of strategies, Ecology’s technical review segregated the strategies into three tiers. The tiers reflect the relative probability that benefits will be achieved, based on apparent certainty of a strategy occurring, along with certainty of projected benefits if the strategy does occur.

Ecology’s “Tier 1” (most certain) category included the following strategies that, when totaled, are projected to offset 2.114 cfs of stream flow impacts, or slightly more than double the 1.03 cfs potential consumptive use impacts to instream flows projected to occur in the basin over the next 20 years:

Ecology Staff “Tier 1” Strategy List	
WRIA 11 Plan Action	Projected Offset (CFS)
Yelm Offset Action 1 – Connect New Development in Yelm UGA to City Water Service (Deep well)	0.33
Water Right Acquisition(s)	0.093
Yelm Offset Action 2 - Connect Existing Development on Permit-exempt Wells in Yelm UGA to City Water Service and Decommission permit-exempt Wells	0.014
Managed Aquifer Recharge (MAR) Projects	1.66
Ohop Phase IV Floodplain Restoration & Protection	0.0173

Ecology’s analysis and resulting recommendation focused on this subset of strategies is not an endorsement of nor a requirement to implement exclusively these strategies. Instead, local strategy implementation can and should proceed with an eye to balancing benefits, costs, and conditions, among other factors, at time of implementation. Offsetting consumptive use impacts can be achieved through a variety of combinations of strategies in Tiers 1, 2, and 3. Overall, there is flexibility in how offsetting potential consumptive use impacts to instream flows can be accomplished.

C. Net Ecological Benefit

After evaluation of the WRIA 11 Plan Addendum to determine that it identifies strategies to offset all potential consumptive use impacts to instream flows, Ecology evaluated the Plan Addendum for additional strategies necessary to achieve a net ecological benefit. Reviewers

considered the unique hydrogeological characteristics of the basin, locations of projected new permit exempt domestic wells, and habitat benefits of strategies described in the Plan Addendum. While most of the consumptive use associated with new permit-exempt domestic wells will occur in the lower part of the watershed, a high percentage of the Tier 1 habitat projects are located further upstream and are connected to habitat features in the upper portions of the WRIA that are most valuable for fisheries. This relationship contributes significantly to benefits associated with these projects. Overall, the 22 actions identified in the WRIA 11 Plan Addendum will more than offset new projected domestic uses of water over the next twenty years, and will result in a net ecological benefit to instream resources within the WRIA.

Recommendation: Adopt with Conditions

As summarized above, Water Resources Program reviewers concluded that the WRIA 11 planning unit used an acceptable method and properly forecasted the potential consumptive impacts of new permit-exempt domestic water uses to instream flows, and then recommended a set of actions to offset those impacts. Further, after accounting for new projected domestic uses of water over the next twenty years, the WRIA 11 Plan Addendum identifies actions that will result in a net ecological benefit to instream resources within the WRIA, as required in RCW 90.94.020(4)(c).

However, given the admittedly conceptual nature of many elements in the plan (due in significant part to the accelerated timeframe required by statute for the planning unit to submit its plan to Ecology for adoption), and the fact that most of the actions to offset consumptive water use are at initial stages of planning and development, the Program recommends that Ecology's adoption of the Plan Addendum be conditioned on adaptive management provisions.

Ecology is authorized to adopt a watershed plan with conditions when such conditions are necessary to support Ecology's determination that actions identified in the watershed plan, after accounting for new projected uses of water over the subsequent twenty years, will result in a net ecological benefit to instream resources within the WRIA. Generally, an agency which has authority to approve or deny a proposal has authority to approve such a proposal with conditions. Even if the authority to impose conditions on approvals is not expressly stated in a statute, it is implied.

The WRIA 11 planning unit has indicated a commitment to adaptive management, and the Program considers adaptive management to be a critical component of reasonable assurance that statutory requirements will be fulfilled as the Plan Addendum is implemented. Therefore, the Program recommends the Plan Addendum be adopted with conditions as follows:

1. Annual Reporting
 - a. The planning unit is required to prepare and submit a brief (fewer than 10 pages) mainly narrative report to Ecology by June 1 of the year following plan adoption, and every year thereafter during the planning horizon period, describing:
 - i. Plan implementation actions to date.
 - ii. Any changes in approach since the last report.
 - iii. Any significant implementation challenges identified that will require a change in approach.

- iv. Specific information regarding the Tier 1 actions that Ecology relied on in adopting the plan:
 - 1. Yelm Offset Action 1 – Connect New Development in Yelm UGA to City Water Service (Deep Well): Status of the permit application process, including progress on preparing a draft Report of Examination for review by Ecology.
 - 2. Water Right Acquisition: Status of any efforts to identify and acquire suitable water rights for transfer to the state trust water right program for instream flow purposes.
 - 3. Yelm Offset Action 2 - Connect Existing Development on Permit-exempt Wells in Yelm UGA to City Water Service and Decommission permit-exempt Wells: Status of progress on decommissioning wells and connecting homes to the City’s water system which previously used domestic wells.
 - 4. Managed Aquifer Recharge (MAR) Projects: Status of feasibility studies for project(s) that contribute toward offsetting consumptive impacts and achieving net ecological benefit.
 - 5. Ohop Phase IV Floodplain Restoration & Protection: Status of project implementation.

2. Five-year Self-Assessment

- a. The planning unit is required to prepare and submit to Ecology by June 1, 2024, and every five years thereafter during the planning horizon period, a detailed description of:
 - i. project implementation; and,
 - ii. a calculation of quantity of water and instream flow benefits realized through implementation of projects identified in the Plan Addendum.
- b. Ecology may review the self-assessment to determine if any modifications to the conditional adoption of the Plan Addendum are necessary.

3. Ongoing Compliance with RCW 90.94.020(5)

Planning unit governments will continue to fulfill the requirements of RCW 90.94.020(5) - which include recording relevant restrictions on titles, and recording and reporting the number of building permits issued by the County – after Ecology’s adoption of the Plan Addendum.

- 4. Neither a decision to adopt the updated watershed plan, nor the inclusion of any conditions in such adoption of the updated plan, provide any guarantee that Ecology will approve any requests for project funding.