# WASHINGTON STATE DEPARTMENT OF ECOLOGY MEMORANDUM

Date: 12-3-2020

To: Laura Watson, Ecology Director

From: Mary Verner, Water Resources Program Manager

Re: Recommendation to Adopt WRIAs 22 and 23 Watershed Plan Addendum

# **Summary**

The Water Resources Program (Program), based upon its review and analysis of the locally approved Water Resource Inventory Areas (WRIA) 22 and 23 Watershed Plan Addendum (Addendum), recommends that Ecology adopt this Addendum, as described in RCW 90.94.020(4)(c).

This memorandum provides the Program's analysis and recommendations regarding Ecology's action required pursuant to the Streamflow Restoration Act, RCW 90.94.020(c).

As required under this law, the Program has reviewed the locally approved WRIA 22 and 23 (Upper Chehalis and Lower Chehalis basins) Addendum, and recommends that Ecology adopt this Addendum as described in RCW 90.94.020(4)(c). The Program reviewed the Addendum in accordance with the requirements of RCW 90.94.020(4)(b) and (c), as well as programmatic guidance.<sup>1</sup> The Program determined that the "…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 [NEB] to instream resources within the water resource inventory area."<sup>2</sup>

Based upon a thorough review of the Addendum, it is the Program's position that the WRIAs 22/23 Planning Unit (Planning Unit), also termed the Chehalis Basin Partnership, used reasonable and scientifically-sound methods to forecast new, permit-exempt domestic well consumptive water use for the next twenty years. The Planning Unit forecasted 4,555 new permit-exempt domestic wells, an average watered yard size of 0.074 acres, with a projected consumptive use per well of 0.11 acre-feet per year (AFY). The Planning Unit forecasted the total consumptive use impact of these new water uses to be 504.8 AFY<sup>3</sup>. The Planning Unit also included 20 projects they categorized as high certainty, or "Core," for the Program's NEB analysis. The Program determined that the Addendum used reasonable and scientifically-sound methods to project an

<sup>&</sup>lt;sup>1</sup> Final Guidance for Determining Net Ecological Benefit - GUID-2094 Water Resources Program Guidance - July 31, 2019 - Publication 19-11-079

<sup>&</sup>lt;sup>2</sup> RCW 90.94.020(4)(c)

<sup>&</sup>lt;sup>3</sup> 1 acre foot per year equals 0.00138128 cubic feet per second.

estimated 3,290 AFY in water benefits from those Core projects. These projects are intended to offset the impacts from new, permit-exempt domestic well consumptive water use, and are calculated to exceed the projected consumptive use by 2,785.2 AFY, and achieve a NEB.

The Program's recommendation is reinforced by the Addendum's inclusion of the Albany Street Stormwater Pond with a projected water benefit of 11.9 AFY, and the Transalta Water Right Acquisition project, with a projected water benefit of 2,898 AFY within their Core projects, exceeding the Addendum's projected permit exempt domestic well consumptive use impacts by 2,405.1 AFY. The Albany Street Stormwater Pond project was funded through a 2019 Ecology Streamflow Restoration and Enhancement grant. A feasibility study for the Transalta project will be funded through a 2020 Ecology Streamflow Restoration and Enhancement grant, with an expressed intent by the Transalta project sponsor and WRIAs 22/23 planning process partner, the Quinault Indian Nation, to apply for funding in a subsequent Ecology Streamflow Restoration grant round to put that water permanently into Ecology's Trust Water Rights Program.

As discussed below and in the attached Technical Review Report (TRR), the Program is sufficiently assured the projects described in the Addendum will offset the anticipated impacts from permit except domestic wells through 2038, and result in a NEB to instream resources within WRIAs 22 and 23.

Subbasin	Consumptive Use Estimate (2018-2040) AFY	Core <sup>4</sup> Water Offsets Projects AFY
Black River	141.1	18.7
Chehalis - Salzer	9.2	NQ
Chehalis Headwaters	5.2	0
Cloquallum - N Delezene	29.1	0
W Capitol Forest	1.8	0
Elk - Johns River	1.5	0
East Willapa	39.8	2.5
Hanaford	4.2	1.5
Hoquiam	3.1	0
Humptulips	1.0	0
Mox Chehalis	4.5	0
Newaukum	80.1	286.3
Satsop	28.4	NQ
Scatter Creek	64.2	78
Curtis	18.9	0
Skookumchuck	62.4	2,898
Northeast Willapa	8.7	0
Wishkah	0.2	0
Wynoochee	1.4	NQ
Basinwide Concepts	-	2.5
WRIA 22/23 Total	504.8	3,290

Table 1: Consumptive Water Use Estimate and Core Water Offset Project Volumes Summary (adapted from Table 16 in the Addendum). The projects are listed in Table 15 in the Addendum, and descriptions of the projects can be found in Appendix B of the Addendum.

Although the Program's analysis of the Addendum's offset projects focused on those Core projects identified in Table 1 of this document, a total of 74 projects (inclusive of the 20 Core projects) in Table 14 in the Addendum, was developed through a collaboration of Planning Unit members, partners, and stakeholders. These projects are anticipated to be more completely analyzed and built during implementation of the Addendum by the Planning Unit, further improving the instream resources of WRIAs 22/23.

<sup>&</sup>lt;sup>4</sup> Water offsets were estimated conservatively by the Planning Unit for projects without detailed information or modeling. This column only includes those Core projects with sufficient information for the Planning Unit to develop a confident estimate for the NEB analysis.



Figure 1: Consumptive Use And Water Offsets, by Subbasin, for Core Offset Projects. Subbasins were scaled from white (No Core projects) to light and darker green to indicate the degree that Core offset projects exceed projected consumptive use (Figure 6 in the Addendum).



Figure 2: Distribution of Core Offset Projects in the Chehalis Basin. The four basin-wide offset projects are not depicted. (Figure provided by Planning Unit at Program request).

### **Authorities**

RCW 90.94.020 directs the WRIA 22/23 Planning Unit, as well as a number of other Planning Units around the state, to prepare an update (Addendum) to their existing Watershed Plan. This law requires each of these Planning Units to forecast the water impacts of permit exempt domestic wells from 2018 to 2038, and to identify projects and actions to offset those water impacts. Planning Units must then submit a locally-approved Addendum to Ecology. Ecology's statutory deadline for action for the WRIA 22 and 23 Addendum is February 1, 2021. Prior to adopting any such Addendum, Ecology is required by RCW 90.94.020(4)(c) 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.*"

To support the work of the Planning Units, Ecology issued the Final Guidance for Determining

*Net Ecological Benefit* (NEB Guidance) in July 2019. Ecology's NEB Guidance provides that Ecology will make a NEB determination if the "anticipated [benefits] to occur through implementation of projects and actions in a plan to yield offsets that exceed impacts within: a) the planning horizon; and, b) the relevant WRIA boundary."<sup>5</sup>

Advisory support was provided throughout the process by Ecology staff, led by Michael Noone. This supplemented the financial support Ecology provided to support the Planning Unit's work.

### **Background**

The Upper Chehalis and Lower Chehalis (WRIAs 22 and 23) basins comprise the largest river basin in western Washington, extending over eight counties and encompassing approximately 2,800 square miles. Grays Harbor County makes up approximately 50 percent of the basin area, followed by Lewis County covering 28 percent of the area, and Thurston and Mason counties comprising 12 and 8 percent of the area, respectively. The basin is bounded on the west by the Pacific Ocean, on the east by the Deschutes Watershed, the north by the Olympic Mountains, and the south by the Cowlitz Watershed. Elevations vary from sea level at Grays Harbor to approximately 5,000 feet above mean sea level (amsl) in the southern Olympic Mountains, approximately 3,000 feet amsl in the Willapa Hills in western Lewis County, and approximately 3,600 feet amsl in the Bald Hills in eastern Lewis County.

The Chehalis Basin drainage system is comprised of the Chehalis River and several major river tributaries – the West Fork Chehalis, South Fork Chehalis, Newaukum, Skookumchuck, Black, Satsop, Wynoochee, and Wishkah, Rivers – and numerous tributary creeks. In addition, the Hoquiam, Humptulips, Grays, Johns, and Elk Rivers flow directly into Grays Harbor and are part of the Chehalis Basin. Grays Harbor is the terminus for all rivers within the Chehalis Basin. Approximately 80 percent of the basin is forestland, with the remainder consisting of agricultural, urban, or industrial areas.

In 1976, chapter 173-522-050 WAC established minimum flows and seasonal closures in the basin to new surface water rights, and in 1994 groundwater rights were heavily restricted as a result of the *Postema v. Pollution Control Hr'gs Bd., 142 Wn.2d 68, 11 P.3d 726 (2000)* Washington Supreme Court decision.

The Washington Legislature passed the Watershed Planning Act (chapter 90.82 RCW) in 1998, acting under the authority of the 1998 Watershed Management Act, with Grays Harbor County<sup>6</sup> as the Lead Agency, the Planning Unit approved the plan on April 13, 2004, which was adopted by each of its participating members.

The Planning Unit developed and approved a Detailed Implementation Plan in June 2009, further outlining a comprehensive approach for accomplishing the 2004 plan's goals through prioritized strategies and interim milestones.

<sup>&</sup>lt;sup>5</sup> Final Guidance for Determining Net Ecological Benefit - GUID-2094 Water Resources Program Guidance - July 31, 2019 - Publication 19-11-079

<sup>&</sup>lt;sup>6</sup>Pacific, Cowlitz, Jefferson, and Wahkiakum counties combined make up less than 5 percent of the basin area, and are not members of the Planning Unit.

Following the enactment of RCW 90.94 in early 2018, the Planning Unit<sup>7</sup> started work on the Addendum. They ultimately held 20 Planning Unit meetings, along with a large number of technical work group meetings, to work on specific components of the Addendum. Program staff participated in Planning Unit and technical work group meetings to assist in and guide the development of the Addendum.

A first reading of the draft plan was at a Planning Unit meeting on October 29, 2020, where a quorum was present and the vote to approve was unanimous. Following a vote<sup>8</sup> to approve at a final reading of the draft plan on November 17, 2020, the Planning Unit formally submitted their locally approved Plan Addendum to Ecology on November 23, 2020. As a technical and policy advisor to the Planning Unit, Ecology abstained from all votes related to approval of the Addendum.

#### **Technical Review of WRIAs 22 and 23 Plan Addendum**

This section of the memorandum summarizes the attached TRR prepared by the Program's technical staff, who were also extensively engaged in supporting the planning work of WRIAs 22/23. The TRR forms the technical basis for the Program's recommendation to adopt the Addendum.

Program technical staff find that the WRIA 22/23 Addendum submitted by the Planning Unit meets the requirements of chapter 90.94 RCW to identify projects and actions necessary to offset the potential consumptive use associated with new permit-exempt domestic well withdrawals anticipated through 2040. Although not required under the RCW, the Planning Unit conducted its own NEB evaluation and concluded the plan will provide a NEB to the Chehalis River Basin by implementing projects that will fully offset, and substantially exceed, the consumptive use impacts, while also addressing habitat and temperature issues in the basin. The Addendum follows Ecology's NEB Guidance for determining NEB (Publication 19-11-079), and provides ample information for Ecology to make its own determination.

<sup>&</sup>lt;sup>7</sup>The Quinault Indian Nation was not a signatory to the Chehalis Basin Partnership Initiating Governments Agreement and is therefore not listed as a Partnership member in their Operating Procedures Manual. RCW 90.94.020(3) requires that Initiating Governments invite participation from any "federally recognized Indian tribe that has usual and accustomed harvest area within the water resource inventory area." The Quinault Indian Nation has historically participated regularly in Partnership meetings and conveyed its intent to participate in the RCW 90.94 Watershed Management Plan Update, and the Partnership welcomed the Quinault Indian Nation for full participation, as if they were formal signatory members, for development of the Addendum.

<sup>&</sup>lt;sup>8</sup>The Quinault Indian Nation voted "Formal Disagreement but Willing to Go with Majority: I want my disagreement noted in writing but I'll support the decision." consistent with the Planning Unit's Operating Procedures. In their dissenting opinion, which provided the Quinault Indian Nation's perspective on water law in Washington and some of the projects included in the Plan Addendum, they concluded that "For the above reasons, the Nation cannot support approval of the Addendum without assurances that impacts to its Treaty-reserved rights from future permit-exempt well use authorized under the SRA [Streamflow Restoration Act] scheme are effectively mitigated. We respectfully disagree with approval of the Addendum, but will not oppose or block its approval by consensus. As provided in the Chehalis Basin Partnership Bylaws, we submit this dissenting opinion for the record, along with our final technical comments." The Tribe's 10/26/20 dissenting opinion letter was included with the documents submitted by the Planning Unit with the locally approved Addendum. At the 11/17/20 Planning Unit meeting where the Addendum was locally approved, the Quinault Indian Nation representative stated that they intend to continue participating in Planning Unit efforts to implement the actions identified in the Addendum.

Program staff conducted its NEB evaluation of the Addendum using a general ledger-type comparison between the magnitude and spatial distribution of impacts caused by the anticipated new consumptive water use, and the estimated benefits from the proposed offset projects. The Planning Unit presented two sets of water offset estimates – one using all of the proposed water offset projects, and another relying on a subset of 20 core water-offset projects that have reduced project offset quantities, when necessary, to account for uncertainty in the original estimates (Table 2). The total credited offset from these 20 core, more-certain, projects is 3,290 AFY, which is more than six times greater than the projected basin-wide 504.8 AFY streamflow impact.

Most projected permit-exempt domestic well consumptive water use identified in the Addendum will be concentrated in a limited number of subbasins. There are just four subbasins with 60 AFY or more of anticipated new consumptive water use: Black River, Scatter Creek, Skookumchuck, and Newaukum. Anticipated consumptive water use in those subbasins comprises nearly 70 percent of all anticipated watershed consumptive water use from permit-exempt domestic wells. The Addendum presents and Ecology Program staff concur that several large water offset projects located in some of the upper reaches of the basin that will produce downstream benefits for significant portions of the basin, and in some of the most critical areas for depressed salmon stocks (spring Chinook).

Most of the Addendum's overall water offset amount comes from the 2,898 AFY TransAlta water right acquisition, located in the Skookumchuck subbasin. As identified in two major salmon and aquatic species restoration programs in the Chehalis Basin (the Chehalis Basin Salmon Restoration and Preservation Strategy and the Chehalis Basin Strategy Aquatic Species Restoration Plan), many aquatic species rely on this subbasin for multiple life stages, including spring- and fall-run Chinook, coho, winter steelhead and cutthroat trout. Moreover, this project by adding approximately 2,900 AFY would improve flow and habitat conditions through the downstream, highly degraded, Chehalis River mainstem that all salmonid life stages use for migration corridors, juvenile rearing, and spawning. With regard to these mainstem improvements, 15 of 19 of the subbasins in the Chehalis Basin would benefit from this one project.

While benefits associated with the TransAlta project are great due to the large quantity and strategic location, reliance on a single acquisition undoubtedly presents some risk. There are strong indications this water right acquisition will occur, and the Addendum describes a robust adaptive management strategy that includes mechanisms to adapt if any projects do not fulfill expectations. Nonetheless, in light of this risk, the Planning Unit strove to develop projects of all types (water right acquisitions, non-acquisition water projects, and habitat and other project types) in all of the subbasins and especially those with the highest projected consumptive use.

Beyond the proposed water offset projects, the Addendum also identifies and proposes an extensive list of habitat offset projects based on ecological needs identified through two major salmon and aquatic species restoration programs. The Planning Unit has proposed 62 habitat improvement projects in 16 of 19 subbasins, along with five basin-wide conceptual projects. Program staff find that these projects are well distributed and will provide ecological benefits throughout much of the basin. The listed projects will enhance more than 120 miles of stream and riparian habitat, mostly in the more heavily impacted Newaukum and Skookumchuck subbasins, preserve 2,180 acres of forested uplands and riparian wetlands; and reconnect more than 40 miles

of salmonid habitat by removing fish barriers.

Therefore, Program staff conclude that the WRIAs 22/23 Addendum is thorough and well executed, and uses reasonable and scientifically-sound methods when conducting the analyses presented. This strategy is well integrated with existing and current watershed protection and restoration efforts, and includes a robust implementation and adaptive management strategy that clearly indicates the Planning Unit's goal to successfully implement the plan. For these reasons, we conclude there is a reasonable assurance that the Addendum will provide significant improvements to stream resources within the WRIAs and achieve a NEB in the context of chapter 90.94 RCW.

# **Recommendation**

In summary I concur, based upon the Program technical staff's analysis of the locally approved WRIAs 22 and 23 Watershed Plan Addendum, with the Planning Unit's conclusion and therefore recommend that Ecology adopt this Addendum, as described in RCW 90.94.020(4)(c).