

WASHINGTON STATE DEPARTMENT OF ECOLOGY MEMORANDUM

Date: June 2, 2021

To: Laura Watson, Ecology Director

From: Mary Verner, Water Resources Program Manager

Re: Recommendation to Adopt WRIA 10 Watershed Restoration and Enhancement Plan

The Water Resources Program (Program), based upon its review and analysis of the locally approved Water Resource Inventory Area (WRIA) 10 Watershed Restoration and Enhancement Plan (Watershed Plan), **recommends that Ecology adopt this Watershed Plan, as described in RCW 90.94.030(3).**

This memorandum provides the Program's analysis and recommendations regarding Ecology's action required pursuant to Streamflow Restoration, RCW 90.94.030(3)(c).

Program Analysis of the WRIA 10 Watershed Restoration and Enhancement Plan

As required under this law, the Program has reviewed the locally approved WRIA 10 Puyallup-White Watershed Plan, and recommends that Ecology adopt this Watershed Plan as described in RCW 90.94.030(3). The Program reviewed the Watershed Plan in accordance with the requirements of RCW 90.94.030(3), as well as programmatic Guidance and Policy.¹ The Program has determined that the "...actions identified in the 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."²

Based upon a thorough review of the Watershed Plan, it is the Program's position that the Puyallup-White (WRIA 10) Watershed Restoration and Enhancement Committee (Committee) used reasonable and scientifically-sound methods to project new, permit-exempt domestic well (PE well) consumptive water use for the twenty year planning horizon (2018-2038). The Committee projected 688 new PE wells with a total projected consumptive use for the WRIA of 277.4 acre-feet per year (AFY)/ 0.38 cubic feet-per-second (CFS).

¹ Final Guidance for Determining Net Ecological Benefit - GUID-2094 Water Resources Program Guidance - July 31, 2019 - Publication 19-11-079; Streamflow Restoration Policy and Interpretive Statement – POL-2094 Water Resources Policy – July 31, 2019.

² RCW 90.94.030(3)(c)

The Committee included nine projects to meet the offset need for the projected consumptive use. Offset projects focus on water right acquisition, Managed Aquifer Recharge (MAR), Green Stormwater Infrastructure (GSI), and decommissioning PE wells as part of levee setback and floodplain reconnection projects. The projects in this Watershed Plan provide an estimated 788.3 AFY in offsets.

The Watershed Plan includes four projects that are identified as Tier 1 projects and five projects that are identified as Tier 2. Tier 1 projects represent projects with the greatest certainty of being implemented. These projects have specific locations, project sponsors, and in some cases are already underway. Tier 1 projects account for a water offset of 375.3 AFY and will offset the consumptive use in WRIA 10. Tier 2 projects have less certainty because they are less developed, lack project sponsors, or lack specific locations at this time. The water offset estimates from the Tier 2 projects provide reasonable assurance that the plan can meet NEB if Tier 1 offsets are not implemented.

The Committee sought water offset projects with a focus on water right acquisitions. Two of the Tier 1 projects are water right acquisition proposals. The water right holders (Cascade Water Alliance and the Pierce Conservation District) have expressed willingness to explore the purchase and placement of the water rights into the Trust Water Right program. The projects will need funding from the Streamflow Restoration Grant or other fund source to complete the transactions and secure the water rights.

The proposed purchase of offset water from CWA involves Water Right Certificate of Change No. S2-CV1-2P168(B) (formerly Puget Sound Energy's claim for a water right associated with the now-defunct Lake Tapps hydropower facility). This water right has a priority date of April 17, 1895 and allows the diversion of 1,000 CFS and 246,710 AFY from the White River into and through Lake Tapps for the following purposes of use: *“Hydroelectric plant; Recreational reservoir levels; winter reservoir levels to maintain reservoir; protect and enhance fish and wildlife; maintenance of water quality for recreational purposes in the reservoir and to meet other regulatory requirements.”*

A purchase of 277 AFY (0.38 CFS) from CWA's certificate of change would result in permanently keeping 0.38 CFS of water in the White River instead of diverting it to Lake Tapps, or ensuring that flow in the White River would be increased by 0.38 CFS above what is occurring through CWA's current management of the reservoir through other another approach. Ecology's Water Resources Program is willing to facilitate and negotiate this small change in purpose of use with CWA, but cannot guarantee a successful outcome because technical and water right permitting issues still need to be resolved. Also, if these issues can be resolved to ensure that this project can be viable, it will be up to another party to successfully apply for Streamflow Restoration grant funding to pay for this proposed water offset. If this project cannot proceed, some Tier 2 projects would need to be implemented to meet the offset need. The adaptive management provisions in the plan include actions to elevate Tier 2 projects if any Tier 1 projects, such as the CWA acquisition, are not implemented. The Program believes that the adaptive management provisions are sufficiently robust, and that there are Tier 2 projects that could fill the void to generate offsets to replace the 277 AFY offset that would not be provided by the CWA project if it cannot be implemented.

The Committee also included 22 habitat improvement projects that contribute toward meeting the

NEB requirements of the law. The habitat project types are levee setbacks, stream restoration and floodplain reconnection. The Committee did not place habitat projects into tiers because these projects all have a similar level of certainty.

To allow for analysis of the relationship between new consumptive use and offsets, the WRIA 10 Committee divided WRIA 10 into seven subbasins. Table 1 provides a comparison of project benefits and offset targets by subbasin and at the WRIA scale. Figure 1 shows the location of water offset and habitat projects, as well as the estimated consumptive use and Tier 1 and Tier 2 water offsets by subbasin.

The Program determined that the WRIA 10 Committee used reasonable and scientifically-sound methods to estimate 788.3 AFY in water offset benefits from those projects. These projects are intended to offset the impacts from PE well consumptive water use between 2018 and 2038, and estimated offset benefits exceed the projected consumptive use by 510.9 AFY. The additional projects provide benefits to salmonids and other aquatic species by increasing stream complexity, reconnecting floodplains, and enhancing natural processes. The benefits from the water offset projects and habitat improvement projects will achieve a NEB.

The Watershed Plan identifies three programmatic actions that will increase the knowledge of PE well water use in the watershed and increase water conservation throughout the WRIA:

- A water conservation and incentives program.
- A voluntary PE well metering pilot project.
- Updates to Ecology's well log database.

The Watershed Plan also includes recommendations for adaptive management measures:

- PE well tracking.
- Project implementation tracking.
- Periodic watershed plan implementation reporting.
- Recommended actions if offsets are not being achieved.

These adaptive management measures contribute to a reasonable assurance that the plan will adequately offset new consumptive use from PE wells anticipated during the planning horizon.

The Program's recommendation to adopt the Watershed Plan is reinforced by the project tiering (described above) and recommended programmatic actions and adaptive management measures that the WRIA 10 Committee included in the Watershed Plan for the purpose of addressing uncertainty in plan implementation.

The WRIA 10 Committee included their own NEB evaluation in their plan, and stated in Chapter 7.4: "Based on the information and analyses summarized in this plan and the assumption that

projects and programmatic actions in the plan will be implemented, the WRIA 10 Committee finds that this plan achieves a net ecological benefit, as required by RCW 90.94.030 and defined by the Final NEB Guidance” (WRIA 10 Watershed Plan, page 81).

As discussed below and in the attached Net Ecological Benefit Determination, the Program is sufficiently assured the projects described in the WRIA 10 Watershed Plan will offset the anticipated impacts from new permit-except domestic wells projected from 2018 through 2038, and result in a NEB to instream resources within WRIA 10.

Table 1: Consumptive Water Use Estimate and Water Offset Project Volumes Summary (adapted from Table 15 in the Watershed Plan). The projects are listed in Table 14 in the Watershed Plan, and descriptions of the projects can be found in Appendix H of the Watershed Plan.

Subbasin	Offset Project Totals (AFY)	Tier 1 Offsets (AFY)	Tier 2 Offsets (AFY)	Permit-Exempt Well Consumptive Use (AFY) ¹	Surplus/Deficit (AFY) ²
Carbon River	22.3	8	14.3	43.9	-21.6
Lower Puyallup River	330	0	330	41.1	+288.9
Lower White River	0	0	0	30.6	-30.6
Middle White River	277	277	0	23.0	+254
South Prairie Creek	89.1	89.1	0	67.3	+21.8
Upper Puyallup River	1.2	1.2	0	66.5	-65.3
Upper White River	0	0	0	4.8	-4.8
WRIA-wide projects	68.71	0	68.7	-	+68.71
WRIA 10 Total	788.3	375.3	398.7	277.4	+510.9

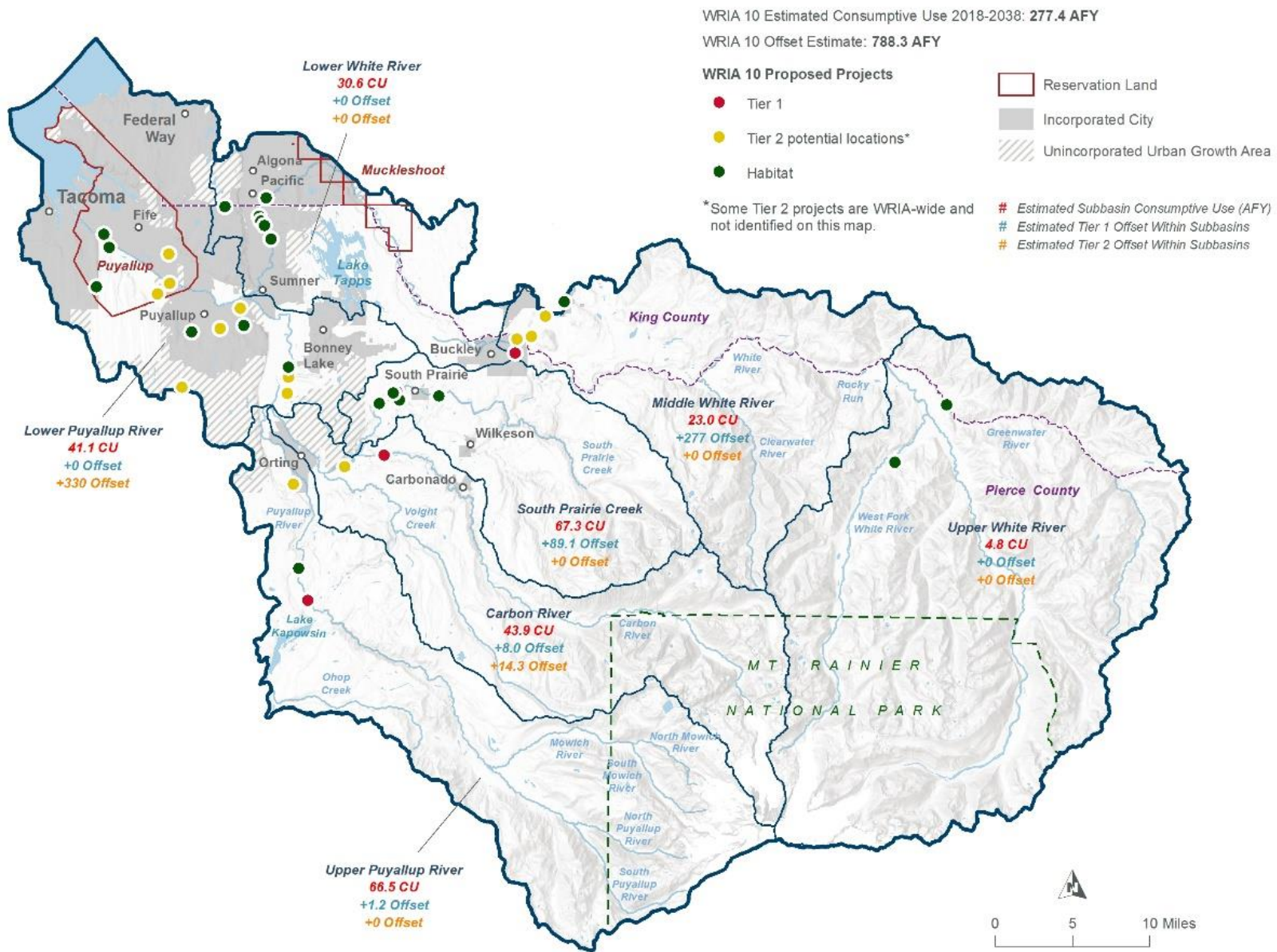


Figure 1: Consumptive Use and Water Offsets, by Subbasin, for Offset and Habitat Projects.

Agency Authorities

RCW 90.94.030 directs Ecology to establish and chair watershed restoration and enhancement committees in WRIA 10. The law directs Ecology to prepare and adopt a watershed restoration and enhancement plan in collaboration with the Committees. This law requires the Watershed Plan to forecast the potential impacts of new PE wells from 2018 to 2038 on instream flows, and to identify projects and actions to offset those impacts.

All members of the Committee must approve the Watershed Plan prior to submission to Ecology. Ecology's statutory deadline for adoption of the WRIA 10 Watershed Plan is June 30, 2021. Prior to adopting any such Watershed Plan, Ecology is required by RCW 90.94.030(3)(c) to "... determine that actions identified in the 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 Committees, 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 outcome that is anticipated to occur through implementation of projects and actions in a plan yields offsets that exceed impacts within: a) the planning horizon; and, b) the relevant WRIA boundary.³

Ecology's role with the Committee and Watershed Plan is described in RCW 90.94.030(2) and (3). Ecology established the Committee, chaired the Committee, and prepared the Watershed Plan in collaboration with the Committee. Ecology contracted with a technical consultant and a facilitation team to support the development of the Watershed Plan and work with Committee. Ecology staff led the preparation of the Watershed Plan, reviewing Committee decisions and Watershed Plan language with Ecology management throughout the process. The WRIA 10 Committee work was led by Rebecca Brown.

Ecology prepared the non-project programmatic SEPA determination of non-significance, which has completed the public review process. The SEPA public comment period opened on April 29, 2021 and closed on May 23, 2021. Ecology did not receive any comments and retained the determination of non-significance. The SEPA checklist and DNS are attached.

Watershed and Planning Overview

Watershed Characteristics

The 1,000 square mile Puyallup-White Watershed is within Pierce and King counties, and includes all of the lands drained by the Puyallup, White, and Carbon rivers. The White and Carbon rivers are tributaries to the Puyallup River. These three river systems originate from glaciers on Mount Rainier.

The Puyallup-White Watershed is one of the most heavily populated basins in western Washington. The western portion of the Puyallup-White Watershed is predominantly urban, characterized by a combination of residential, industrial, commercial, agricultural, transportation, communication, and utility land uses. The most populated cities in the watershed are Tacoma, Auburn, and Federal Way.

³ Final Guidance for Determining Net Ecological Benefit - GUID-2094 Water Resources Program Guidance - July 31, 2019 - Publication 19-11-079

Approximately 14 percent (149.7 square miles) of the watershed is within a city or designated urban growth area, and approximately 86 percent of the WRIA is outside of the urban growth areas. The confluence of the Puyallup River with Commencement Bay occurs in the urbanized and highly industrialized Port of Tacoma.

The eastern or upland portion of the watershed generally consists of commercial forest land, Mount Rainier National Park (19 percent of the WRIA), and the Baker-Snoqualmie and Gifford Pinchot national forests (26 percent of the WRIA). Washington state agencies manage about 3% of the land in the WRIA. Land uses shift to agriculture, suburban developments, and small urban centers in the foothills of the Cascade Mountains. Rural residential development has primarily occurred in the foothills outside of the urban centers.

Planning Process

WRIA 10 is one of eight watersheds listed in Section 030 of Streamflow Restoration (RCW 90.94.030). These watersheds all have older instream flow rules that do not regulate PE wells, and the watersheds did not adopt watershed plans under Watershed Planning (RCW 90.82).

Following the enactment of RCW 90.94 in early 2018, Ecology established the WRIA 10 Committee by inviting the entities identified in RCW 90.94.030(2)(b) to participate. The Committee first met in October 2018 and continued to meet monthly or bi-monthly, as needed, through April 2021.

This planning process, by statutory design, brought diverse perspectives to the table. The authorizing legislation required that all members of the Committee approve the final plan prior to Ecology's review. It was important for the Committee to identify a clear process for making decisions. The Committee strived for consensus during foundational votes and decisions on plan development, being the best indicator of the Committee's progress toward an approved plan. When consensus could not be reached, the Committee relied on a two-thirds majority vote. Consensus was reached on all interim decisions.

The WRIA 10 Committee reviewed the draft plan and draft plan chapters on an iterative basis throughout the summer and fall of 2020. Ecology distributed a fully compiled plan draft on December 4, 2020. On January 6, 2021, the Committee reviewed outstanding comments on the draft plan. Ecology distributed the Final Draft Plan to the Committee members on January 7, 2021. The WRIA 10 Committee voted to approve the Watershed Restoration and Enhancement Plan on April 22, 2021. As chair of the Committee, the Ecology representative voted on all decisions that came before the Committee, including the approval of the Watershed Plan.

Technical Review of WRIA 10 Watershed Restoration and Enhancement Plan

This section of the memorandum summarizes the attached NEB Determination prepared by the Program's technical staff, who were also extensively engaged in supporting the planning work in WRIA 10. The NEB Determination forms the technical basis for the Program's recommendation to adopt the Watershed Plan.

Ecology technical staff concludes that the WRIA 10 Watershed Plan adequately describes and

evaluates the collective effects of new PE wells and offset projects. The Watershed Plan's narratives, and quantitative and qualitative assessments are as thorough as they can be at this stage in their development, and followed a clear and systematic logic. The Watershed Plan provides a well-organized and transparent evaluation of benefits from projects. The Watershed Plan appendices include maps, figures, quantification of benefits where available, and cost estimates when appropriate. There is a reasonable assurance that the offsets and NEB within the plan will occur.

The combined water balance at the WRIA-scale indicates a basin-wide surplus of 510.9 AFY (all projects) or 97.9 AFY (highly implementable Tier 1 projects), supporting attainment of NEB by providing additional benefits to instream resources beyond those necessary offset the anticipated new, 20-year PE well demand in WRIA 10. This surplus provides reasonable assurance that new PE well demand will be offset at the WRIA-scale. If an offset project is not developed due to funding constraints or other issues, a subset of projects can still provide sufficient water offset to meet the projected new consumptive uses.

The portfolio of projects will offset projected impacts from PE wells in three subbasins⁴, and at the WRIA-scale. Projects will enhance streamflow in subbasins that have a surplus of offset water, and provide downstream benefits. Habitat improvement projects will enhance and protect biological function in some subbasins and restore biological function in more degraded subbasins. The recommended adaptive management actions will increase the likelihood of implementation. Collectively, the projects and actions will result in achieving NEB in WRIA 10.

In conclusion, Ecology technical staff's analyses of the plan indicates that relative to the impacts created by future PE wells anticipated in WRIA 10 over the twenty-year planning horizon, the offset strategies proposed will result in a NEB for the watershed. Therefore, Ecology technical staff conclude that the plan meets the intent of the legislation and requirements of RCW 90.94.030.

Recommendation

The Program staff acknowledge that the WRIA 10 Watershed Plan includes programmatic actions and adaptive management recommendations, including a water conservation education and incentive program, voluntary PE well metering, tracking and monitoring of new PE wells and project implementation, reporting on implementation, and adaptive management of the plan. For many WRIA 10 Committee members, these additional recommendations built assurance for Watershed Plan implementation and achieving NEB. We do not present these additional recommendations in this memo. The Program will review recommendations for Ecology action across all of the Watershed Plans and make a programmatic decision on where and how to invest resources on recommendation implementation.

This Watershed Plan does not include recommendations that would trigger rulemaking, such as modification of PE well fees or water use quantities, as described in RCW 90.94.030(3)(f).

In summary, I concur, based upon the Program technical staff's analysis of the locally

⁴ Surplus may be achieved in additional subbasins as some projects had undetermined locations (WRIA-wide projects).

approved WRIA 10 Watershed Restoration and Enhancement Plan, with the Watershed Restoration and Enhancement Committee's conclusion and therefore recommend that Ecology adopt this Watershed Restoration and Enhancement Plan, as described in RCW 90.94.030.