



Whatcom County WRIA 1 Rule Amendment 2023 Annual Report

In an effort to address the WRIA 1 Rule Amendment Annual Reporting requirement, Whatcom County has prepared a brief memo to submit to Ecology annually following rule adoption, and every year thereafter during the planning horizon period.

This memo addresses the following reporting requirements:

- a. The number of new building permits associated with new domestic permit-exempt wells issued in the prior calendar year.
- b. The email addresses associated with the new building permit recipients in (a), where available.
- c. A brief (no more than a few sentences) description of the status of each of the WRIA 1 Streamflow Restoration projects/actions undertaken to meet the offsets and/or NEB related to this rule amendment.
- d. Any other RCW 90.94.020 rule implementation actions to date, including any changes in approach since the last report, and any challenges identified that may require a change in approach.

This Annual Report has been submitted to the Northwest Regional Office (NWRO) Water Resources Section Manager Kasey Cykler, kasey.cykler@ecy.wa.gov, on April 1, 2024 by Senior Watershed Management Planner Chris Elder, celder@co.whatcom.wa.us.

- a. The number of new building permits associated with new domestic permit-exempt wells issued in the prior calendar year.
 - Whatcom County issued 39 building permits associated with new domestic permit-exempt wells issued in the prior calendar year (2023).
- b. The email addresses associated with the new building permit recipients in (a), where available.
 - Contact info for homeowners not available
- c. Brief description of the status of each of the WRIA 1 Streamflow Restoration projects/actions undertaken to meet the offsets and/or NEB related to this rule amendment are described below.
 - **Project ID 1: Dairy waste processing treatment:** Coldstream Farm, a dairy located near Acme, received a grant from United States Department of Agriculture (USDA) to serve as a pilot for a manure-processing system that turns out solid fertilizer, liquid fertilizer and, water. Whatcom PUD is contributing the cost for permitting completion. Whatcom PUD may eventually receive the discharge water through an agreement with Coldstream Farm. While this project did successfully produce clean water, the costs of operating the equipment and the additional inputs have caused the farm to pause use of the equipment until the process becomes more financially feasible.

- **Project ID 2: Bertrand groundwater augmentation of tributaries:** AESI, Reichardt and Ebe Engineering, and the Ag Water Board consulted with Ecology about how to proceed with this project. Consensus was to identify potential sites for future surface to ground water conversions and augmentation sites. AESI assisted AWB and the Drayton and Bertrand WIDs in suggesting improvements and corrections to the available data compilation prepared for the Phase I Regional Water Supply Plan. This data assisted in identifying key project locations in each of these pilot watersheds. Locations were identified in consultation with WDFW though agreement of groundwater augmentation of tributaries has not been approved by WDFW.
- **Project ID 4-7, 9: MAR Various WRIA 1 Locations:** The City of Lynden received grant funding through Ecology’s streamflow restoration competitive grant program to pursue a managed aquifer recharge (MAR) project at various locations in WRIA 1 (Project ID 4-7,9-: MAR—Various WRIA 1 locations) including the North Fork Site (Project ID 8: MAR - North Fork Site). Lynden finalized the grant agreement with Ecology in the first quarter of 2021, and completed preliminary MAR feasibility at two project sites and continues working on detailed assessments of those sites.
- **Project ID 8 MAR – North Fork Site:** See Project ID 4-7, 9 description above.
- **Project ID 19: Skookum Creek Restoration:** Whatcom Land Trust completed the acquisition of ~1,100 acres of Lower Skookum Creek in 2018, including 2.5 miles of Skookum Creek upstream of the confluence with the South Fork Nooksack River. Acquisition of an additional 1,000 acres connecting Lower Skookum Creek to the Arlecho Creek Old Growth Preserve was completed. These acquisitions include over 5 miles of Skookum Creek and create a nearly complete protected corridor from the South Fork Nooksack River to federally-protected wilderness at the base of the Twin Sisters Range. Forest Management and Restoration Planning has begun on these projects to maximize streamflow and temperature benefits through enhanced forest management practices. The Nooksack Indian Tribe contracted with Natural Systems Design to model the potential increase flow in Skookum Creek as a result of changed forest management using EPA’s gridded ecohydrological model called VELMA: Visualizing Ecosystem Land Management Assessments. Modeling results suggest that managing the watershed for mature and old growth age classes can increase August streamflow by up to 5 cfs under current climate compared to a harvest scenario with a stand age of 40 years.
- **Project ID 19NG: Wetland restoration, enhancement, and/or creation on Ecology NEP approved parcels:** The Nooksack Indian Tribe obtained both EPA CWA 319 competitive funding and EPA-NEP-Ecology competitive funding for riparian and wetlands restoration and protection along the South Fork Nooksack River (SFNR). The project has involved the purchase and wetland/riparian restoration of two 40-acre parcels (reimbursement to Whatcom Land Trust) immediately adjacent to the SFNR using both NEP and CWA 319 funds as well as a third parcel in the Black Slough drainage, tributary to the SFNR, where wetland restoration will take place using EPA 319 funding. The Tribe is seeking additional funding to protect and restore additional parcels in the Black Slough watershed to further augment summer flows in the SFNR. As part of existing CWA 319 funding, the Tribe will be modeling the potential gains in summer flows in the SFNR as a result of the riparian and wetlands restoration activities on these three parcels. Whatcom County completed purchased approximately 200 acres in the Black Slough watershed that will facilitate wetland creation and riparian enhancement. The first phase of restoration secured funding in 2022 and was implemented in 2023.

- Project ID 21: Stewart Mountain/South Fork Nooksack Conservation Sale:** Whatcom Land Trust, Evergreen Land Trust, Whatcom County, and the Nooksack Indian Tribe have partnered on the Stewart Mountain Community Forest project with the goal of implementing sustainable forest management practices to benefit the local timber economy, streamflow in the South Fork Nooksack River, habitat quality, and recreation. Whatcom Land Trust purchased the Phase I 550-acres with \$1,500,000 in funding from Whatcom County's Conservation Futures Fund. Conversations regarding the acquisition of the remaining ~5,000 acres is ongoing and Whatcom County was awarded \$5,517,000 from the Department of Ecology Streamflow Restoration Grant Program and the Whatcom Land Trust has submitted an application to the Recreation and Conservation Office Community Forest Grant Program in the amount of \$3,000,000. These combined funds will be used to purchase Phase 2 of the SMCF. Exact acreage to be determined.
- Project ID 23: Middle Fork Porter Creek Alluvial Fan Project:** Project construction was completed in mid-October 2020. Approximately 2,900 cubic yards of the right bank artificial levee was removed, and the site was graded to match the natural slope of Porter Creek. Protective slash was spread over the restored surface to minimize erosion. Native grass seed was placed in disturbed areas above Ordinary High Water and straw wattles were placed to prevent erosion. Nine habitat trees were placed in the channel. Immediately after construction, Porter Creek began engaging with the floodplain. New floodplain channels are now forming, and high flows are reconnecting to historical floodplain channels. Riparian planting will occur in Spring 2021. Pre- and post-construction monitoring of surface and groundwater levels, water temperature, channel geomorphology, and habitat conditions is ongoing. The November 2021 Flood event caused significant impacts to the Porter Creek Alluvial Fan but monitoring efforts are ongoing.
- Project ID 24: Birch Bay Water and Sewer District/City of Blaine deep wells:** Birch Bay Water and Sewer District completed an analysis of the California and Dakota Basins regarding what could be accomplished to provide water to agriculture through development of a water bank. The deep wells have the potential to provide water to such a water bank. This report has been delivered to Whatcom County to work into the Drainage Based Management process, though no additional actions have been taken.
- Project ID 26: Convert surface water users to groundwater sources:** There are several surface to ground water conversions in various stages of development. Some are designed and ready for permitting, others merely conceptual. AWB applied for the additional funding to complete three of them but did not receive the funding. The County is working with AESI on a surface water/ground water interaction study currently.
- Project ID 28: Storage projects, including gravel pits:** A study of multi-purpose storage options has been initiated by Whatcom County and is anticipated to be completed by mid-2024.
- Project ID 46NG: WRIA 1 Conservation Program:** Whatcom County provided funding to advance three elements of this project. A report, Water Rights and Relinquishment in Whatcom County, was completed by RH2 in December of 2019 and provides an overview of the challenges and opportunities of water conservation as related to water rights, use requirements, water banking, and relinquishment. Whatcom Conservation District worked with members of the Whatcom Water Alliance to develop a domestic and municipal water use efficiency and conservation program, entitled Enhanced Whatcom

Water Alliance Program. The County continues to provide annual funding for program implementation and several of the larger municipal water purveyors have begun collecting fees from users to support continued program implementation. The Whatcom Water Alliance launched a rebate program for residential properties in 2022. The Whatcom Conservation District also completed development of a draft agriculture water management program in 2021, and this program will be reviewed in 2024 to determine next steps.

- **Project ID 44: Vista Road Project:** Whatcom PUD provides potable water and fire flow to the Grandview Industrial Park (Industrial Park). In 2019, to improve the fire flow system, Whatcom PUD constructed a pipeline from its Plant No. 2 north on Vista Road to the Industrial Park. The pipeline construction was funded by Whatcom PUD. There has been no further progress on the rest of the work.
 - **Project ID 45:** Lake Terrell/Coastal Drainages: No progress.
- d. Any other RCW 90.94.020 rule implementation actions to date, including any changes in approach since the last report, and any challenges identified that may require a change in approach.
- No