WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT

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Whatcom County WRIA 1 Rule 5 Year Assessment

In an effort to address the WRIA 1 Rule Amendment 5 Year Assessment Reporting requirement, Whatcom County has prepared a memo to submit to Ecology 5 years following rule adoption, and every 5 years thereafter during the planning horizon period.

This memo addresses the following reporting requirements:

a. The total (cumulative) number of new building permits associated with domestic permit-exempt wells issued from January 19, 2018 through the December 31, 2022.

b. The status of the implementation of WRIA 1 Streamflow Restoration (RCW 90.94.020) projects/actions.

c. An estimate of the quantity of water and instream flow benefits realized through implementation of -projects/actions identified in this WRIA 1 rule supporting document, projects previously added as part of this self-assessment process, or other related Streamflow Restoration (RCW 90.94.020) work.

In addition to describing accomplishments to date, this Assessment provides an opportunity to recommend substitutions of new projects or actions if some of the currently proposed projects/actions are not proving to be as feasible or providing the results as anticipated. Whatcom County, with input from the WRIA 1 Watershed Staff Team and project proponents, is in the process of reviewing the current list of projects and, at a later date, will submit any proposed substitutions of new projects or actions if some of the currently proposed projects/actions are not proving to be as feasible or providing the results as anticipated. Ecology will review any proposed changes and make a final decision on modifications to the projects and actions identified in the rule supporting document.

As part of the Five-Year Self-Assessment, project proponents have provided the County with information necessary to track implementation and progress on any projects included in Chapter 6 or added through the Five-Year Self-Assessment process. This information includes, but is not limited to:

- Entity responsible for implementation and staff/contact information
- Timelines and dates of completion for actions implemented
- Legal issues encountered, if applicable
- Identification of permits required and schedules for obtaining those permits, if applicable
- Estimated costs associated with implementation, operation and maintenance, if applicable

- Secured and/or potential funding source(s), if applicable
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
- Other information of interest/relevance

One of the most challenging aspects of the Five-Year Self-Assessment has been estimating the quantity of flow benefit realized through project implementation. In most cases, the estimates used will be the same as those provided in the rule supporting document, which are based on a series of outcome assumptions. Depending on the progress of individual projects, the entity or entities implementing the project may choose to update the flow benefit estimates, based on conditions and circumstances encountered.

The overall purpose of the adaptive management approach is to enable adjustments based on new or more accurate information associated with permit-exempt domestic well growth and project implementation. As indicated in Item 2(b), above, the Five-Year Self-Assessments provides opportunities to suggest alternative projects and/or actions if those listed in Chapter 6 are not implementable as anticipated. Ecology will make changes to the project list through a technical memorandum, which will describe and document the justification for the change. Substitution, addition, or removal of projects/actions will be made at Ecology's discretion, based on information contained in the Five-Year Self-Assessments and other data readily available (such as grant reports to Ecology).

The Five-Year Self-Assessments can be submitted to the Northwest Regional Office (NWRO) Water Resources Section Manager or their designee.

This 5 Year Assessment Report has been submitted to the Northwest Regional Office (NWRO) Water Resources Section Manager Kasey Cykler, kasey.cykler@ecy.wa.gov, on November 1, 2023 by Senior Watershed Management Planner Chris Elder, celder@co.whatcom.wa.us.

a. The total (cumulative) number of new building permits associated with domestic permit-exempt wells issued from January 19, 2018 thru the December 31, 2022.
    - Whatcom County issued 119 building permits associated with new domestic permit- exempt wells during this time period

b. The status of the implementation of WRIA 1 Streamflow Restoration (RCW 90.94.020) projects/actions. *(see project ID and description below)*

c. An estimate of the quantity of water and instream flow benefits realized through implementation of -projects/actions identified in this WRIA 1 rule supporting document, projects previously added as part of this self-assessment process, or other related Streamflow Restoration (RCW 90.94.020) work. *(see project ID and description 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 contributed funds to cover costs associated with permitting the project. 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.

- Entity responsible for implementation and staff/contact information:
  n/a
- Timelines and dates of completion for actions implemented:
  - n/a
- Legal issues encountered, if applicable:
  - None
- Identification of permits required and schedules for obtaining those permits, if applicable
  - Water right certificate would be required for any new use
  - Water quality permit required for discharge
- Estimated costs associated with implementation, operation and maintenance, if applicable
  - n/a
- Secured and/or potential funding source(s), if applicable
  - n/a
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
  - Project not economically viable currently
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
  - None
- Other information of interest/relevance
  - There is no streamflow benefit associated with the project as the project is not currently active.

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.

- Entity responsible for implementation and staff/contact information
  Bertrand Watershed Improvement District (BWID)
  Gavin Willis, Administrator gavin@agwaterboard.com
- Timelines and dates of completion for actions implemented

- Pilot completed in fall 2017
- Project could be replicated if agreed as valued and funding available

- Legal issues encountered, if applicable
  - None
- Identification of permits required and schedules for obtaining those permits, if applicable
  - Temporary water right
- Estimated costs associated with implementation, operation and maintenance, if applicable
  - $75k
- Secured and/or potential funding source(s), if applicable
  - None
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
  - Demonstrated ability to successfully add flow to streams during low flow periods.
- An estimate of the quantity of water and instream flow benefits realized through implementation of -projects/actions identified in this WRIA 1 rule supporting document, projects previously added as part of this self-assessment process, or other related Streamflow Restoration (RCW 90.94.020) work.
  - 1 cfs added
- Other information of interest/relevance
  - None

Project ID 4-7, 9: MAR Various WRIA 1 Locations:

City of Lynden contracted with AESI to implement exploration of the Managed Aquifer Recharge at 2 locations.

- Entity responsible for implementation and staff/contact information
  City of Lynden
  Mark Sandal, sandalm@lyndenwa.org
- Timelines and dates of completion for actions implemented
  - Cultural Resources Review completed
  - Preliminary MAR feasibility Study completed
  - Phase 1 Environmental Site Assessments, and Quality Assurance project plans completed
  - Field Investigation and Analysis of Mar Sites – Middle Fork and South Fork Sites – ongoing, projected completion: 12/31/2023
  - Water Quality Characterization – ongoing projected completion: 12/31/2023
  - Permitting Analysis and Preliminary Design – projected completion: 12/31/2024
  - Final MAR Project Design and Permitting – Projected completion: 12/31/2025
  - Facility construction: Projected Completion 12/31/2026
  - Environmental Monitoring: Projected Completion 12/31/2027
  - Project status ongoing
- Legal issues encountered, if applicable

- None
- Identification of permits required and schedules for obtaining those permits, if applicable
  - Will be identified as part of permitting analysis to be completed by 12/31/2023
- Estimated costs associated with implementation, operation and maintenance, if applicable
  - Still being developed
- Secured and/or potential funding source(s), if applicable
  - Streamflow Restoration Grant WRSRP-2020-LyndPW-00002
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
  - Currently on-schedule per the grant agreement
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
  - To be determined as studies continue.
- Other information of interest/relevance
  - None

Project ID 8 MAR – North Fork Site: No action on project to date.

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.

- Entity responsible for implementation and staff/contact information
  Whatcom Land Trust
  Jenn Mackey, Jennifer@whatcomlandtrust.org
- Timelines and dates of completion for actions implemented
  - Acquisition Phase 1: January 2019
  - Acquisition Phase 2: June 2021
  - Lower Skookum Creek Forest Management Plan: 2019
  - Noxious Weed Control: Fall 2021 and Fall 2022
- Project status

    - ~2,300 acres have been acquired in the Skookum Creek Watershed. Instream restoration and final forest management planning is underway.
- Legal issues encountered, if applicable
    - None.
- Identification of permits required and schedules for obtaining those permits, if applicable
    - None.
- Estimated costs associated with implementation, operation and maintenance, if applicable
    - Acquisition Costs: $5,600,000
    - Forest Management Planning: $40,000
    - Base Operation Costs: $150,000 invested to cover ~$15,000 in year one, followed by $5,000 annually. This excludes any additional road or forest maintenance, which have yet to occur and will so as needed.
- Secured and/or potential funding source(s), if applicable
    - Whatcom County Conservation Futures Fund
    - Washington Recreation and Conservation Office WWRP grant program
    - Private Donations
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
    - The acquisition of the property was implemented successfully into phases. A forest management plan was developed based on streamflow modelling and best management practices for restoration of forestland hydrology on the first phase, and is being developed for the second phase. Lummi Nation is currently working with engineers to design and implement an instream restoration project. Next steps include beginning forest management based on the developed plan and improving road and drainage conditions.
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
    - Using current average streamflow in Skookum Creek, estimated increases in baseflow under old growth conditions based on recent studies, and the number of acres that are on track to be restored to mature forest conditions, the initial estimate of streamflow increase for the project over the long-term is 4 CFS.
- Other information of interest/relevance

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 will be implemented in 2023.

- Entity responsible for implementation and staff/contact information
  Whatcom County
  Chris Elder, celder@co.whatcom.wa.us
- Timelines and dates of completion for actions implemented
  - Acquisition of 200 acres completed December 2021
  - Phase I riparian restoration complete Spring 2023
- Legal issues encountered, if applicable
  - Trespass issues from elk hunters
- Identification of permits required and schedules for obtaining those permits, if applicable
  - Approval is required from US Fish and Wildlife Service to avoid impact to federally listed species, with Oregon Spotted Frog being present onsite
- Estimated costs associated with implementation, operation and maintenance, if applicable
  - Development of restoration plan, initial plan and implementation are still being developed
- Secured and/or potential funding source(s), if applicable
  - Funding for acquisition was secured from Whatcom County Conservation Futures Fund
  - Funding for Phase I riparian restoration secured through Washington State Conservation Commission
  - Funding for water quantity and quality monitoring and restoration plan developed secured by the Nooksack Indian Tribe
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented ‘
  - The Black Slough Water Resource Recovery Project is making good progress including development of restoration planning that includes reps from Whatcom County, Nooksack Indian Tribe, and Whatcom Conservation District. The County has been the lead for the recent
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
- Other information of interest/relevance
  - The County is also pursuing funds to address fish passage barriers adjacent to the Black Slough property.

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.

- Entity responsible for implementation and staff/contact information
    - Core Planning Team:
        - Whatcom Land Trust
          Alex Jeffers, Alex@whatcomlandtrust.org
        - Whatcom County
          Chris Elder, celder@co.whatcom.wa.us
        - Nooksack Indian Tribe
          Maggie Taylor, mtaylor@nooksack-nsn.gov
        - Evergreen Land Trust
          Holly O'Neil, holly@crossroads.pro
- Timelines and dates of completion for actions implemented
    - Acquisition Phase 1: 550 acres acquired November 2022
    - Forest Management Planning initiated for Phase I: 2023
    - Acquisition Phase 2: Expected 2024
- Project status
    - Stewart Mountain Community Forest Phase I - 550 acre acquisition completed by fee title owner Whatcom Land Trust with easement held by Whatcom County requiring approval of forest management plan.
    - Project Team (Whatcom Land Trust, Whatcom County, Nooksack Indian Tribe, Evergreen Land Trust) working to finalize ownership and governance plan. Forest Management Planning has also been initiated. Strategic Planning for project took place 2022-2023, with strategic vision framework finalized May 2023. Planning underway for Phase 2 acquisition.
- Legal issues encountered, if applicable
    - None
- Identification of permits required and schedules for obtaining those permits, if applicable
    - Forest Practice Applications will be required once forest management plan is approved and active management is initiated
- Estimated costs associated with implementation, operation and maintenance, if applicable
    - Acquisition Phase 1: $2,345,000
    - Forest Management Planning: Estimated $50,000
- Secured and/or potential funding source(s), if applicable
    - Whatcom County Conservation Futures Fund
    - Washington Recreation and Conservation Office WWRP grant – apply to Phase I acquisition

    - Washington Recreation and Conservation Office Community Forest Program grant – apply to Phase 2 acquisition
    - Whatcom Community Foundation – apply to Phase I acquisition
    - Puget Sound Acquisition and Recovery Fund – apply to Phase I acquisition
    - Streamflow Restoration Grant– apply to Phase 2 acquisition
    - Private Donations
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
    - Project is progressing as planned, with first 550 acre phase completed in Fall of 2022. Forest Management Planning and initial management actions planned for 2023-2024 to begin process of restoring mature forest stands on property.
    - Planning under for Phase 2 acquisition
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
    - Based on recent modelling by Susan Dickerson-Lange, it is estimated that restoring mature and old growth conditions throughout the subject property could result in up to a 23% increase in Late-Summer streamflow coming from the property.
- Other information of interest/relevance
    - None

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 waddles 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.

- Entity responsible for implementation and staff/contact information
    Lummi Nation
    Kelly Turner, KelleyT@lummi-nsn.gov
- Timelines and dates of completion for actions implemented
    - Final project implementation completed in 2021
    - Project monitoring ongoing
- Legal issues encountered, if applicable
    - None identified
- Identification of permits required and schedules for obtaining those permits, if applicable
    - None identified

- Estimated costs associated with implementation, operation and maintenance, if applicable
    - Information about expended fund amounts were not available
- Secured and/or potential funding source(s), if applicable
    - Several funding sources were utilized in project implementation
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
    - The project demonstrated active engagement with the restored Porter Creek floodplain
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
    - As of May 2021 monitoring efforts indicate an increase in alluvial fan storage of 2.47 acre feet
- Other information of interest/relevance
    - None

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.

- Entity responsible for implementation and staff/contact information
    - Project not well enough defined to have a responsible entity and staff
- Timelines and dates of completion for actions implemented
    - None
- Project status
    - BBWSD is working on getting cost reimbursement for costs incurred
- Legal issues encountered, if applicable
    - None
- Identification of permits required and schedules for obtaining those permits, if applicable
    - If the project is further developed, application for a water right is required
    - Application for water right has not been initiated and use of well water in streams has not been an approved action by Department of Fish and Wildlife
- Estimated costs associated with implementation, operation and maintenance
    - No costs proposed currently
- Secured and/or potential funding source(s), if applicable
    - None
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
    - Project remains a future opportunity
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
    - No additional information available on potential water and instream flow benefits

- Other information of interest/relevance
    - No other information at this time

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.

- Entity responsible for implementation and staff/contact information
  Ag Water Board (AWB)
  Gavin Willis, Administrator gavin@agwaterboard.com
- Timelines and dates of completion for actions implemented
    - Plans were developed to convert three Bertrand surface rights to groundwater based on successful conversion of 5 previous surface rights
    - Project on hold
- Legal issues encountered, if applicable
    - Grant funds shifted to augmentation as no ability to credit landowners for making the conversions were developed.
- Identification of permits required and schedules for obtaining those permits, if applicable
    - Water right certificate change would be required
- Estimated costs associated with implementation, operation and maintenance, if applicable
    - Estimated costs are variable and still in development
- Secured and/or potential funding source(s), if applicable
    - Streamflow Restoration Grant
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
    - Whatcom County farmers and the Bertrand Watershed Improvement District (WID) implemented seven surface water to groundwater conversions between 2010 and 2016 resulting in adding over 2 cfs to Bertrand Creek in low flow periods. (Ref 1). An additional 45 potential projects have been scoped by Ag Water Board (AWB) contractors Associated Earth Sciences Inc. (AESI) and Reichhardt and Ebe Engineering Inc. (R&E): three are in the Coastal North, thirty-eight are in the Lower Nooksack, and four in the Sumas River drainage (Ref 13). All are ready to be implemented within a 5-year project period. This project will select 10 priority projects based on their positive contributions to stream flows, cost benefit ratio, contribution to groundwater model development, and readiness to proceed.
- An estimate of the quantity of water and instream flow benefits realized through implementation of projects/actions.
    - The surface water rights under consideration to convert to groundwater sources range in instantaneous diversion rates (Qi) between 0.08 and 1.0 cubic feet per second (cfs) with the average of all diversions being 0.64 cfs. The 45 potential surface to groundwater conversion candidates are presented in Table 1 (Ref 13). For illustrative purposes, an example of ten potential conversion projects is presented in Table 2 (Ref 34). The table includes ten conversion

projects with a total streamflow benefit of 6.69 cfs, calculated as the sum of the Qi of each individual water right (Ref 34). The annual quantity (Qa) streamflow benefit for the ten example projects was based on the Qa listed in the water right documents for each water right. If no Qa was listed, the total quality was calculated based on an assumed water duty of 1.5 feet over the quantity of irrigated acres on the water right. Note that the actual streamflow benefit of each conversion project will likely differ based on local hydrogeologic conditions which will control the timing and magnitude of streamflow depletion from groundwater pumping. The quantities discussed above and presented in Table 2 (Ref 34) assume that the projects can be designed so the streamflow depletion effects from groundwater pumping will be delayed until after the irrigation season when seasonal is over and seasonal precipitation and recharge have increased streamflows. The streamflow benefit of each conversion project will be quantified with surface water and groundwater modeling (Task 5) and numerical groundwater modeling (Task 6).

- Other information of interest/relevance

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 the end of 2023.

- Entity responsible for implementation and staff/contact information
  Whatcom County
  John Thompson, jthomps@co.whatcom.wa.us and Chris Elder,
  celder@co.whatcom.wa.us
- Timelines and dates of completion for actions implemented
  - Early 2024 completion of multi-purpose storage assessment
- Legal issues encountered, if applicable
  - None encountered
- Identification of permits required and schedules for obtaining those permits, if applicable
  - None identified
- Estimated costs associated with implementation, operation and maintenance, if applicable
  - Preliminary implementation costs will be identified in storage assessment
- Secured and/or potential funding source(s), if applicable
  - None identified
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
  - No adjustments identified currently
- Other information of interest/relevance
  - Multi-storage assessment is looking at both engineered and natural opportunities

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 2023 to determine next steps.

- Entity responsible for implementation and staff/contact information
  Whatcom County
  Becky Snijder van Wissenkerke, rsnijder@co.whatcom.wa.us
  Whatcom Conservation District
  Aneka Sweeney, aneka@whatcomcd.org
- Timelines and dates of completion for actions implemented
  - Water Rights and Relinquishment in Whatcom County report completed in January 2020
  - Enhanced Whatcom Water Alliance Program plan completed in October 2020
  - Draft Agriculture Water Management Plan released in 2022
- Legal issues encountered, if applicable
  - Water Rights and Relinquishment report identified legal issues. Pending WRIA 1 Water Rights Adjudication reduced interest and participation in implementation of Agriculture Water Management Plan
- Identification of permits required and schedules for obtaining those permits, if applicable
  - Permits required for changes to or transfer of water rights
- Estimated costs associated with implementation, operation and maintenance, if applicable
  - Costs vary significantly with implementation items
- Secured and/or potential funding source(s), if applicable
  - Whatcom County provided funds for the actions identified above and continues to provide annual funds for implementation of the Whatcom Water Alliance program
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
  - Efforts in domestic water use efficiency is making good progress across WRIA 1. Implementation of broad water use efficiency and conservation efforts in agriculture still requires additional effort.
- Other information of interest/relevance
  - None

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.

- Entity responsible for implementation and staff/contact information
    - Whatcom PUD
- Timelines and dates of completion for actions implemented
    - Pipeline constructed in 2019
- Legal issues encountered, if applicable
    - None
- Identification of permits required and schedules for obtaining those permits, if applicable
    - No information available
- Estimated costs associated with implementation, operation and maintenance, if applicable
    - No information available
- Secured and/or potential funding source(s), if applicable
    - Funding to date provided by Whatcom PUD
- Overall assessment of the progress, including recommendations for potential adjustments if the action is not being successfully implemented
    - No additional information available
- Other information of interest/relevance
    - None

Project ID 45: Lake Terrell/Coastal Drainages: No action on project to date.

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