

Compendium to the Final Draft WRIA 13 Watershed Restoration and Enhancement Plan

DRAFT - pending for inclusion with final approved plan

Introduction

The materials in this compendium are not part of the WRIA 13 watershed plan, which was fully approved by the WRIA 13 Committee. This compendium provides background on how the plan was developed, or supplemental materials provided by Committee members. The inclusion of the compendium provides information on the process and shares the diverse opinions of the WRIA 13 Committee members. The documents in this compendium may provide insights on, or qualifications to, an entity's vote to approve the plan; however, they do not change the outcome of a vote by the WRIA 13 Committee to approve the plan. The Committee did not discuss all the documents included, and Committee members did not attempt to reach consensus on the content of these materials. Any opinions expressed in the documents are solely those of the submitting entity and may not reflect the perspective or position of other members of the Committee.

Contents

The documents in this compendium (as of January 2021) include:

- A. Policy Proposals provided by Committee members used to develop Chapter 6 of the WRIA 13 watershed plan. Chapter 6 reflects the recommendations for policy and adaptive management which the Committee reached agreement on.
- B. Supplemental write up on the Salmon Recovery Portal, provided by the Washington Department of Fish and Wildlife
- C. WRIA 13 climate analysis by Paul Pickett
- D. Statements provided by members (pending)

WRIA 13 Policy & Adaptive Management Proposals – Table of Contents

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Name: Water Conservation and Drought Adaptation Education and Outreach

Entity: Thurston Conservation District

Type of policy idea: Education

Description:

1. Implementer and other key players:
 - a. Thurston Conservation District
 - b. WSU Thurston Extension would be a welcome partner
 - c. Thurston County (for any referrals, maybe tied to regulatory situations or policies)
2. Required action
 - a. Development of educational materials and workshops for new or existing homeowners, including but not limited to topics like lawn irrigation management (and encouraging cultural shift that tolerates dormant summer lawns), water-wise landscaping, xeriscaping, use of native plants, water-wise gardening, rainwater collection, etc.
 - b. Development of Irrigation Water Management Plans and related resources for agricultural producers and gardeners
 - c. Availability of incentive programs for upgrading outdated or inefficient irrigation systems, particularly agricultural.
 - d. Availability of water rights programs that allow agricultural producers to receive compensation for practicing conservation measures and not using their full water rights; the portion of water conserved would be placed into temporary trust through the duration of the compensation. This would apply in cases where landowners do not want to lose their rights but do not need all the water. Water banking is an existing option that may be available for the conserved portions of water rights and could be explored by the agricultural community in ways that help preserve local food production. This could involve the establishment of a stakeholder group that includes agricultural producers.
 - e. In light of drought-caused tree deaths, as noted by WA DNR and urban forestry experts, include drought tolerance/water use efficiency as a factor in recommended tree lists (i.e. municipal and county)
 - f. Work with local nurseries or stores to stock and label xeriscaping and low-water use native species for ease of customer identification and purchase
3. Who action impacts
 - a. The actions proposed here are voluntary actions and educational opportunities which would positively impact all members of the community who pursue them.
4. Benefits and challenges/obstacles
 - a. Benefit: Greater level of education around wise water use; reductions in water use.
 - b. Benefit: Reduced leaching of nutrients into streams and water bodies due to overwatering
 - c. Challenges: cultural resistance; it takes time to change behavior.

Description of purpose:

Sustained support for water conservation will encourage reductions in water usage which could have real impacts on water availability within WRIA 13. The WRIA 13 community has already demonstrated great interest in resources related to water use efficiency and drought resilience offered by Thurston Conservation District in the past.

Water is used in many ways throughout the WRIA, including house-hold use; irrigation of gardens, lawns, landscaping, and trees; and for agricultural production. By providing tailored educational resources addressing each of these uses, we can help create impactful reductions in water use.

Description of identified concerns:

No concerns have been identified by partners.

Cost and funding source:

Any funding source for this would ideally be consistent from year to year, and not tied to drought declarations. Existing funding for drought adaptation is typically associated with areas under a formal drought designation, despite the fact that the best time to prepare is before. This is particularly relevant when it comes to education topics that address climate adaptation and resilience.

Policy proposal – WRIA 13 WREC

Name: Drought response limit

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Regulation

Description of policy idea (a short abstract):

1. *Identify the potential implementers and other key players.*
 - a. Counties, Ecology
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Consistent with RCW 90.94.030(4)(b), upon the issuance of a drought emergency order under RCW 43.83B.405, withdrawal of groundwater exempt from permitting under RCW 90.44.050 will be limited to no more than three hundred fifty gallons per day per connection for indoor use only.
 - b. A limited exemption to outdoor water use is allowed for growing food, maintaining a fire control buffer, or supporting an environmental restoration project.
 - c. Support for drought response will be provided by a water conservation program (separate proposal). This education and outreach program will educate the public about water conservation practices.
 - d. Ecology will include these requirements in a package for rule-making.
 - e. Propose legislation to apply this program to all PE wells statewide.
3. *Identify who the action impacts (if different than primary implementer).*
 - a. New Permit exempt wells
 - b. Supports tribal treaty rights and rights of senior water rights holders
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits:
 - i. Addresses increased impacts in dry years compared to average conditions.
 - ii. Operates in parallel to ISF rules and closures to protect Tribal Treaty rights and senior water rights.
 - iii. Addresses climate change impacts.
 - b. Challenges: poor understanding or resistance from home-owners. Requires dedicated resources. Without an education and compliance programs, compliance with the limits will be poor.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. Build resilience into the plan to address extreme events of heat, dryness, and low flow
 - b. Provide protections for senior water rights holders
 - c. Support NEB goals for streamflow restoration.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. Prefer education first, and a compliance approach over enforcement
 - b. Ecology rule-making follows its own process and therefore is uncertain
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. Already in law, support for food production exception
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. Addressing only new PE wells may not be fair if existing wells are exempt
 - b. Lack of this program could result in a loophole that opens the plan to a legal challenge
4. *In what ways does your proposal address those concerns?*
 - a. Proposal has been revised over time to approach the issue in ways that might reach consensus

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. Rule-making
 - b. Legislative advocacy
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Cost uncertain – need analysis
 - b. Include in Ecology budget
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. Possible costs to impacts on landscaping from outdoor watering ban

Policy proposal – WRIA 13 WREC

Name: County Policies to Promote Connections to Group A systems

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Regulation

Description of policy idea (a short abstract):

Water purveyors in some situations determine that a new home can connect to their system through a “timely and reasonable” assessment. But due to a number of factors, potential group A water system water customers instead construct a single family exempt well.

In some counties, the property owner is not obligated to connect to Group A service even if they are within the system boundaries. In these cases, if the property owner meets the setback requirements for a PE well, the purveyor cannot prevent them from drilling a PE well even if the purveyor can connect them. The property owner can even drill a well for irrigation purposes even if they are already connected to the Group A system. The County may have no ordinance prohibiting PE wells inside water system boundaries or city limits, as long as the well can meet the setback requirements.

Department of Health discourages the construction of PE wells when Group A service is available, and they encourage Counties to establish ordinances to restrict PE wells within service areas through a “right of first refusal” and other restrictions on PE wells when Group A service is available in a timely and reasonable fashion.

1. *Identify the potential implementers and other key players.*
 - a. Counties
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. The Plan should encourage Thurston County to review their current ordinances and plans to determine if a new or revised ordinance would improve the ability of Group A system owners to have a “right of first refusal” and prevent new PE wells for their existing customers.
 - b. If opportunities for improvement are identified, the Counties are encouraged to pass ordinances to implement the identified areas of improvement.
3. *Identify who the action impacts (if different than primary implementer).*
 - a. Developers and landowners requiring water service for new construction.
 - b. Purveyors, who can add another customer, but may see some of their system capacity or water right used.
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: Reduces the potential number of PE wells and encourages connection to Group A systems. This reduces groundwater consumptive use and provides a safety factor for the overall Plan goal of streamflow restoration.
 - b. May increase construction costs for affected parcels. This may result in political resistance to necessary ordinance changes. Ordinances could be rolled back in the future.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. These requirements would be consistent with the Plans' goal of streamflow restoration.
 - b. Implementation of these rules would provide a safety factor for the goal of providing offsets to exceed new PE well consumptive use.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. There will likely be resistance to increased costs for new construction, even if limited.
 - b. There may be political resistance to tightening development rules.
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. Discussions have led to the current revised version.
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. Lack of certainty the these recommendations will be implemented
4. *In what ways does your proposal address those concerns?*
 - a. Proposed changes are targeted and narrow.
 - b. The power to implement this proposal is entirely at the discretion of the Counties.
 - c. Concerns can also be addressed through the ordinance development to process.

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. Some staff time will be necessary to develop the ordinances.
 - b. Grants or low interest loans could be obtained to compensate for increased costs (addressed under a separate proposal).
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Unknown at this time.
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. Hookup fees required for connection to a Group A system will likely increase the construction costs of a new home, and the prohibition of PE well construction by a Group A customer would require homeowners to pay utility rates.

Policy proposal – WRIA 13 WREC

Name: Revolving Loan and Grant Fund for Small Public Water Systems

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Incentives

Description of policy idea (a short abstract):

1. *Identify the potential implementers and other key players.*
 - a. Counties
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Investigate the feasibility of establishing and operating a revolving loan fund for Group A public water systems to offset costs for potential new PE wells to connect to a system.
 - b. This fund would be established by Counties willing to participate, and would be subject to identifying seed money for the fund (see funding proposals).
 - c. The fund would be designed to be available to applicants for whom economic hardship would be the barrier to connecting to a Group A system instead of constructing a permit-exempt well.
 - d. Use of the fund would be subject to case-specific feasibility, such as availability of a sufficient water right, consistency with the relevant Water System Plan, and other applicable rules and regulations.
 - e. Details of the fund, such as criteria for its use, application procedures, or default procedures, would be developed during the initial feasibility investigation phase.
3. *Identify who the action impacts (if different than primary implementer).*
 - a. Developers and landowners requiring water service for new construction.
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: Reduces the potential number of PE wells, which reduces groundwater consumptive use and provides a safety factor for the overall Plan goal of streamflow restoration.
 - b. Challenges/Obstacles: Funding would need to be found. Maybe be difficult to implement. May have limited support and use.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. This program would be consistent with the Plans' goal of streamflow restoration.
 - b. Implementation of this program would provide a safety factor for the goal of providing offsets to exceed new PE well consumptive use.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*

- a. Funding would need to be identified to implement the proposal.
 - b. Counties are concerned with workload capacity issues regarding setting up this kind of fund.
 - c. Eligible projects may be rare, making the investment to set this up difficult to justify.
 - d. Site-specific complications and limitations must be considered.
 - e. Details would need to be developed for the design and function of the fund.
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. This has been a preferred approach for the Counties, with the caveats mentioned above. I've shared this with the counties for their input.
 - b. I've also discussed this with WDOH and Kitsap PUD.
 3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a.
 4. *In what ways does your proposal address those concerns?*
 - a. Proposal begins with an investigation of feasibility.
 - b. Funding is not addressed directly, and finding funding may be the first step of implementation.

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. Some staff time will be necessary to develop the find funding and organize interested parties to develop the initial study.
 - b. Funding would be needed for the investigation study, and any development of the program that follows.
 - c. Seed money would be needed to set up the revolving loan fund.
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Unknown at this time.
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. Parties involved with implementing this proposal may have costs for participation.
 - b. This proposal inherently saves money for homeowner.

Policy proposal – WRIA 13 WREC

Name: South Sound Water Steward

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Regulation; Education; Compliance

Description of policy idea (a short abstract):

1. *Identify the potential implementers and other key players.*
 - a. Ecology, with support from local governments
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Ecology creates a new position of “South Sound Water Steward”
 - b. The duties of the position would include:
 - i. Support implementation of watershed plans developed under RCW 90.94
 - ii. Conduct ongoing education, outreach, and technical support for permit-exempt wells owners and water rights holders
 - iii. Support drought response through outreach and technical support
 - iv. Provide technical support to Ecology water rights decisions in the South Sound
 - v. Monitor instream flows, wells, and other relevant water bodies to support implementation of the watershed plan and compliance with state rules
 - vi. Support compliance with state rules through education and technical support
 - vii. Investigate and enforce against illegal water use
 - c. The proposed geographic scope of the water steward (equivalent of water master district) would be:
 - i. At a minimum, all of the south sound watersheds inside (west of) the Tacoma Narrows included as part of WRIAs 11, 12, 13, 14, and 15
 - ii. Potentially the entirety of these 5 WRIAs.
 - d. The position would include legal authorities consistent, where appropriate, with both a Water Master and a Ground Water Supervisor (RCW 90.03.060; 90.03.070; RCW 90.44.200; WAC Chapter 508-12)
3. *Identify who the action impacts (if different than primary implementer).*
 - a. Potentially any water user
 - b. Supports tribal treaty rights and rights of senior water rights holders
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits:
 - i. Provides consistency and effectiveness in implementing the watershed plan and the legal requirements of water use. This benefits all stakeholders and water users.
 - ii. Gives Ecology a visible and clear role for compliance.
 - b. Challenges:
 - i. Requires dedicated funding
 - ii. Requires clarity of purpose and job duties
 - iii. Local unfamiliarity with Water Masters and ground water supervisors
 - iv. Occasional controversy in a particular situation

- v. Severe resistance might result in legal challenges

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. Supports implementation of the Plan
 - b. Provides dedicated staff to provide education, outreach, and technical assistance
 - c. Supports compliance with water resources laws and regulations and supports Tribal Treaty rights.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. Discomfort with a visible Ecology presence for water enforcement
 - b. Uncertainty with the duties of the position
 - c. Uncertainty with funding
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. Support in some cases, concern and opposition in others
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. Position depends on state funding and commitment, which is uncertain
 - b. Local government support may shift with political changes
4. *In what ways does your proposal address those concerns?*
 - a. It attempts to be very clear about proposed purpose and duties

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. Position will need funding and there are costs for position creation and hiring
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Based on the 2019-21 biennial state budget, one water master position would require about \$132,000 per year. This would require reassignment of existing staff, or an additional legislative appropriation.
 - b. Local governments may wish to consider a contribution to support the water master position, to demonstrate their support and improve chances for Ecology adoption and legislative funding.
 - c. All funding would be ongoing.
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. Enforcement could lead to costs for water users who are in violation of state law
 - b. Costs are ultimately borne by taxpayers

Policy proposal – WRIA 13 WREC

Name: Upgrade Well Reporting

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Information process improvement

Description of policy idea (a short abstract):

1. *Identify the potential implementers and other key players.*
 - a. Ecology
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. See attached document “Proposed Improvements to the Department of Ecology’s Well Reporting Processes”
3. *Identify who the action impacts (if different than primary implementer).*
 - a. Well drillers, all users of well database information
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: better well location data; streamlined data collection and uploading; improved data access
 - b. Challenges: requires resources for development, roll-out, and training.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. Accurate well data is critical for all parties to make water management decisions that are protective of the environment and beneficial to communities. Improvements in the quality of well data in Washington State are essential for monitoring and management of shared water resources in the State of Washington. This supports the goals of the Plan.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. None anticipated, other than perhaps the allocation of limited resources.
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. Concept has been discussed, with general support.
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. None anticipated.
4. *In what ways does your proposal address those concerns?*
 - a. Proposal stands by itself. Investment in this improvement in the short term will have long-term benefits.

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. Platform development, testing, roll-out, and user training and support
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Not yet known.
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. There may be a small cost to well drillers for technology.

Proposed Improvements to the Department of Ecology's Well Reporting Processes

The "Upgrade Well Reporting" Proposal

Developed by the Squaxin Island Tribe in consultation with Ecology's Well Construction and Licensing Office

**Contributors: Ecology - Joe Witczak, Scott Malone, and Tara Roberts
Squaxin Island Tribe - Erica Marbet**

Final Draft May 28, 2020

Purpose:

Accurate well data is critical for all parties to make water management decisions that are protective of the environment and beneficial to communities. The quality of well data in Washington State can be improved with changes to how the State collects information from drillers. These improvements are essential for monitoring and management of shared water resources in the State of Washington.

Background:

In 2018, at the request of the Squaxin Island Tribe, Ecology assigned staff to assess the accuracy of water well location reporting in Mason County. The project checked 187 water well reports (2.1% of the 8,910 water well reports from the county). Ecology uses the Public Land Survey system (PLS) to record well locations by township, range, section, quarter and quarter-quarter. Currently wells are mapped by 40-acre quarter-quarter centroids on the State Well Report Viewer. The results showed that 79% of well locations could be verified with the information on the report. Of those that could be verified, 33% had incorrectly reported PLS locations. Ecology performed a similar, statewide assessment of well location data and found a 24% error rate for all types of regulated wells.

As Tribes utilize Ecology's well report database frequently, tribal staff would benefit by improving well location data management and processes. In discussions between Ecology, Squaxin, and Mason County, all agreed that improvements to Ecology's well reporting processes could help reduce the error in water well location reporting.

Ecology is eager to expand their web-based well reporting options. In 2019, Ecology surveyed well drillers to determine their preferences regarding format and features. Of 133 respondents, 63% placed a high importance on a new well location mapping tool that would use recent aerial

imagery to determine a well's PLS location and coordinates. Only 6% responded that this effort would be of low importance. These results showed drillers preferred to submit well reports from a web form in the current well report format.

We propose the following changes to Ecology's well data processes:

1. New well location mapping tool for drillers

An interactive web-based mapping tool that provides an intuitive means of determining PLS location has been implemented in Oregon recently. Ecology is interested in developing their own web tool which provides the PLS and coordinates location (latitude/longitude) for a new well automatically. The Notice of Intent web form would shell into a new GIS application utilizing recent aerial imagery, a parcel overlay, and a tool that updates the quarter-quarter and coordinates on the NOI. The well driller need only click on the interactive map to generate a well location. When a driller finishes a well report, they can utilize the same tool to refine their coordinates and PLS location.

2. Require coordinates on well reports

Coordinates can perfectly describe a well location within a parcel. Adding latitude and longitude on well reports will serve to verify a well's location on the ground accurately and easily. Ecology intends to require well coordinates on reports, though a WAC change may eventually be needed.

3. New web-based well reporting application

Ecology is determining the best approach for implementing a new web-based well reporting application. According to a recent survey of drillers and their support staff, a web-form mimicking the current well report forms that uploads directly to Ecology's database is desired. The benefits of using a web-based well reporting process are numerous:

- Less backlog of scanning and data entry - more time for Ecology staff to vet well reports
- Legible text, fewer written responses
- Digitizing all well report data, not just the fields that were captured by Ecology staff during the scanning process
- A smart form format can eliminate out-of-range entries

By capturing digitized well location data, it would be feasible in the future to automate the process of verifying well locations and water right information. Tracking well location and permit-exempt wells is a need of users who download geospatial datasets

from Ecology's GIS data page (<https://ecology.wa.gov/Research-Data/Data-resources/Geographic-Information-Systems-GIS/Data>).

The Well Construction and Licensing Office at Ecology needs more capacity to vet well reports. Automation from web-based reporting would free up staff to do more vetting, because the office's staff would not have to do as much scanning of paper documents and manual entry of data fields for each report. They need more automation, not FTEs.

Please share this proposal with your RCW 90.94 watershed planning committees ask members to support it. This would include adding it as a proposed action in a watershed plan.

Please contact Mary Verner, Manager of Ecology's Water Resources Program and Tyson Oreiro, Ecology's Tribal Liaison to express your support for the "Upgrade Well Reporting" proposal.

See next two pages for figures.

<https://appswr.ecology.wa.gov/wellconstruction/Wells/NoticeOfIntentForm.aspx?form=noiwaterwellform>

[Laws, Regs and Rules](#)[Notice of Intent Forms](#)[Contact Us](#)

Well Construction and Licensing Search Tools

Step 1 of 3: Enter Information

An asterisk (*) designates the field as required.

Notice of Intent Form to Construct a Water Well

Property Owner Contact Information

*An organization name or the first and last property owner name is required.

Organization Name* (e.g. Daisy Farms LLC)

OR

Last Name*

First Name*

Email Address*

Confirm Email Address*

Mailing Address*

City*

State*

Zip*

Phone ()

International customers cannot submit online. [Contact us](#) for assistance.

Consulting Firm Contact Information

Firm Name

Well Location

Township*

Latitude

Range*

Longitude

Section*

* Quarter-Quarter Section:

NW	NE	NW	NE
*	*	*	*
SW	SE	SW	SE
*	*	*	*
NW	NE	NW	NE
*	*	*	*
SW	SE	SW	SE
*	*	*	*

Well Street Address

Well City

Well Zip Code

Tax Parcel Number

County*

Add interactive map to automatically identify township, range, section, latitude, and longitude



Make Optional

Make Mandatory

<https://fortress.wa.gov/ecy/publications/documents/ecy050120.pdf>

WATER WELL REPORT

**DEPARTMENT OF
ECOLOGY**
State of Washington

Type of Work:
☐ Construction
☐ Decommission \Rightarrow Original installation NOI No. _____

Proposed Use: ☐ Domestic ☐ Industrial ☐ Municipal
 ☐ Dewatering ☐ Irrigation ☐ Test Well ☐ Other _____

Construction Type: **Method:**
☐ New well ☐ Alteration ☐ Driven ☐ Jetted ☐ Cable Tool
☐ Deepening ☐ Other _____ ☐ Dug ☐ Air- ☐ Mud-Rotary

Dimensions: Diameter of boring _____ in., to _____ ft.
 Depth of completed well _____ ft.

Construction Details:				Wall			
Casing	Liner	Diameter		From	To	Thickness	
<input type="checkbox"/>	<input type="checkbox"/>	_____ in.	_____	_____	_____	_____ in.	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	_____ in.	_____	_____	_____	_____ in.	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	_____ in.	_____	_____	_____	_____ in.	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	_____ in.	_____	_____	_____	_____ in.	<input type="checkbox"/>

Perforations: ☐ Yes ☐ No Type of perforator used _____
 No. of perforations _____ Size of perforations _____ in. by _____ in.
 Perforated from _____ ft. to _____ ft. below ground surface

Screens: ☐ Yes ☐ No ☐ K-Packer \Rightarrow Depth _____ ft.
 Manufacturer's Name _____
 Type _____ Model No. _____
 Diameter _____ in. Slot size _____ in. from _____ ft. to _____ ft.
 Diameter _____ in. Slot size _____ in. from _____ ft. to _____ ft.

Sand/Filter pack: ☐ Yes ☐ No Size of pack material _____ in.

Notice of Intent No. _____

Unique Ecology Well ID Tag No. _____

Site Well Name (if more than one well) _____

Water Right Permit/Certificate No. _____

Property Owner Name _____

Well Street Address _____

City _____ County _____

Tax Parcel No. _____

Was a variance approved for this well? Yes ☐ No ☐

If yes, what was the variance for? _____

Location (see instructions on page 2): ☐ WWM or ☐ EWM
 _____ 1/4-1/4 of the _____ 1/4; Section _____ Township _____ Range _____
 Latitude (Example: 47.12345) _____
 Longitude (Example: -120.12345) _____

Driller's Log/Construction or Decommission Procedure

Formation: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information. Use additional sheets if necessary.

Material	From	To

**Make
Mandatory**

Add interactive map to
automatically identify
township, range,
section, latitude, and
longitude



Change this water well report into a web form.

Policy proposal – WRIA 13 WREC

Name: Instream Flow Rule revisions

Entity: Squaxin Island Tribe

Type of policy idea: Regulation

Description of policy idea (a short abstract):

Revise the WRIA 13 Instream Flow Rule (WAC 173-513) to improve protection of streamflow, and the aquatic habitat and other public trust resources that depend on flow.

1. *Identify the potential implementers and other key players.*
 - a. Washington Department of Ecology (Ecology)
 - b. Washington State Legislature
 - c. Local Governments
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Close all streams in WRIA 13 with salmonid habitat from June through October
 - b. For the Deschutes River below Deschutes Falls:
 - i. Reassess the Instream Flow values with the most current ISF assessment methodology and salmon habitat information.
 - c. Review other salmon streams without existing instream flows between November and May and set ISF levels using current methodology.
 - d. Revise and add conditions to the rule any other conditions consistent with the final watershed plan.
3. *Identify who the action impacts (if different than primary implementer).*
 - a. May affect future development by eliminating some sources of water supply.
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: updates rule for greater protection of aquatic resources from future water demands.
 - b. Challenges: rule-making process may alter the final rule; resistance to reduced access to surface and ground water.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. This recommendation would update the rule to:
 - i. Better protect streamflows from future water demands
 - ii. Support implementation of the Plan
 - iii. Support the goals of the plan for stream flow restoration and NEB
 - iv. Improve protection of Tribal and other senior water rights

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. Uncertainty of rule-making outcomes
 - b. Impacts on economic development
 - c. Workload to develop and implement the rule
 - d. Lack of funding or resources for the work
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. Other members are comfortable with the proposal, given that the rule-making process would address some issues, and established processes for addressing closed streams would determine the future impacts.
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. none
4. *In what ways does your proposal address those concerns?*
 - a. Science-based approach
 - b. Focus on protection of salmonids
 - c. Identification of need for funding.

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. Ecology will have to designate resources to implement.
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Unknown at this time. Funding proposals have been provided separately
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. May increase costs for development if less expensive water supplies are not allowed because of this rule.

Policy proposal – WRIA 13 WREC

Name: Permit Exempt Well Withdrawal Limits

Entity: Squaxin Island Tribe

Type of policy idea: Regulation

Description of policy idea (a short abstract):

Ecology will establish Permit Exempt Well limitations for this WRIA at levels similar to those set in the WRIA 1 rule:

- Indoor domestic water use shall not exceed 500 gallons per day per connection, and shall not exceed a total of 3,000 gallons per day for a group domestic system; and
 - Outdoor domestic water use shall be limited to an area not to exceed a total of one-twelfth of an acre, or 3,630 square feet, for each connections, and one-half acre total for all connections in a group domestic system. Outdoor use limits are in addition to indoor water use.
 - Outdoor water use areas may exceed these limits if all outdoor water use is for food production, fire protection, or an environmental restoration project.
 - Water for livestock would still be allowed under a separate permit exemption.
 - Review water use in the WRIA to determine if alternative use limits are more appropriate.
1. *Identify the potential implementers and other key players.*
 - a. Ecology would be responsible for rule development and implementation.
 2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Rule revision would be required.
 3. *Identify who the action impacts (if different than primary implementer).*
 - a. Owners of homes with new permit exempt wells.
 4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: reduces potential impact of new wells. Provides consistency with requirements for WRIA 1 and other WRIs adopting these limits.
 - b. Challenges/obstacles: Ecology must expend resources to implement. Compliance may be difficult to achieve and inconsistent.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. These limitations provide a “safety factor” by setting limits on PE well use based on good water conservation practices. This improves the net benefits of offset projects as they are completed to restore streamflows and protect senior water rights.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*

- a. There may be resistance from homeowners who might have an expectation that there are no limits on their water use.
 - b. Allowance should be made for food production, to support local food security.
 - c. Allowance should also be made for irrigating plantings for environmental restoration.
 - d. Water limits should be specific to this WRIA.
 - e. Public input is needed.
 - f. Ecology will have to invest resources to implement this as a rule and requirement.
- 2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. There are concerns around compliance and enforcement – who is responsible and how it would occur. Compliance will be addressed in a separate proposal.
 - b. Exemptions for food production and environmental restoration were added.
 - c. Language was added to acknowledge that final limits might be different for this WRIA.
 - d. Rule-making includes public input.
- 3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. No others known
- 4. *In what ways does your proposal address those concerns?*
 - a. See above

Cost and funding sources:

- 1. *What elements of the proposal are likely to require funding?*
 - a. Ecology's rule-making
- 2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Ecology might be able to estimate from the WRIA 1 experience
- 3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. Reduced water use will likely reduce costs to homeowners.

Policy proposal

Name: CROSS-WRIA WATER CONSERVATION POLICY - EDUCATION and INCENTIVES PROGRAM

Description of policy idea (a short abstract):

Policy Statement: The state will partner with counties and conservation districts to develop and implement programs that provide outreach and incentives to rural landowners with wells in order to lower indoor and outdoor water use through water conservation best practices, and comply with drought and other water use restrictions.

Implementer and other key players

Implementor - Ecology and Counties; key players Conservation Districts, NGOs

Describe recommended or required actions (including current policies or codes, existing programs and their limitations, perverse incentives, loopholes, etc.)

Educate landowners and residents about the benefits of conservation, and appropriate methods to prepare for and respond to drought conditions.

Develop programs based on the “Active Program” model described in the HDR’s technical memo.

These programs would encourage the following types of programs/best practices:

- Natural lawn care and healthy soils which have the ability to rapidly take in water when it is available and to retain water.
- Irrigation efficiency practices
- Rainwater catchment and storage
- Drought resistant/native landscaping
- Smaller lawn size
- Forest, meadow, and wetland conservation practices
- Indoor water conservation practices
- Voluntary metering for feedback and to document benefits

Provide Incentives for water users to improve their water conservation practices with social, technical and financial assistance as needed.

Provide education and technical assistance to water users in response to complaints of water waste.

Ecology and the State Conservation Commission could work with CDs to update existing on-farm technical assistance recommendations to incorporate water-conservation BMPs.

Use a variety of outreach techniques and materials suited to rural landowners. Adapt or use existing materials, via online weblinks, pdfs, and in print. Conduct one to one and/or neighborhood visits. . Develop programs provide measurable results, such as: certifications; before- and after-project metering; signage; and demonstration projects.

Who the action impacts (if different than primary implementer)

The primary target categories for these programs: homeowners, farmers and small forest landowners with permit-exempt wells. Programs would likely provide benefits to all users of wells and customers of water systems.

Describe benefits and challenges/obstacles

Benefits – Encouraging more landowners with wells – whether permitted or exempt – to practice water conservation can potentially result in lowering the impacts on aquifers and surface waters, particularly for those located near sensitive fish-bearing streams, as well as in areas in the watershed without any identified projects. While streamflow benefits are not directly measurable, programs could be designed to measure on-site benefits (such as certifications or if meters were installed). The cumulative impact of lower water usage by many well-owners—particularly outdoor irrigation – can only be beneficial.

Challenges/obstacles:

- Limited funding to implement education, outreach and incentive programs, unless recognized as a priority.
- Behavior change is on a scale of early adopters, those who are willing to change their habits once they understand why, and those who will not change. It takes time to identify the first 2 categories and then to implement
- Measuring the impact/results of education and incentives, although it can be done (social marketing resources).
- Scale of conservation benefits may be small and have a minor benefit as compared to costs.
- Education should supplement, but not replace, project that significantly increase recharge, reduce water withdrawals, or adjust water use timing to increase summer flows.

Description of purpose:

1. How would this recommendation enhance the WRIA plan? Describe the desired result and how it enhances this plan. (we want to be clear how this relates to offsetting impacts from

PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts)

Many landowners may be unaware of the impacts of their water usage from wells on groundwater levels, and the connection to streams and rivers. Creating/implementing education/outreach programs with messaging on why it's important for streams and rivers to lower their water use and how it can benefit them (for example healthier soils which lead to healthier plants and lawns).

Water conservation best practices would be a valuable supplement in areas with water off-set and restoration projects. These types of water conservation programs are even more important in stream watersheds critical for fish and where water offsets difficult to find.

These programs also provide a safety factor by addressing all water uses beyond new permit exempt domestic wells, and support drought response policies and regulations.

Description of identified concerns:

1. What, if any, WRIA Committee members have expressed concerns with this policy idea and why?

Primary concerns are funding. Tribes are concerned that education not be seen as a panacea and replacement of projects producing significant summer flow improvements

2. Do you anticipate that the affected parties will accept/adopt the action and why?

There should be widespread implementation if funding can be provided.

3. What effort has been made to reach out to concerned members and how was the proposal edited to address their concerns?

Concerned members have provided input to this proposal.

Cost and funding sources:

1. Ballpark cost estimate (if known) – unknown at this time.
2. Discuss potential funding sources and whether funding is one time or ongoing.

One-time funding would not be effective. Long-term multi-year funding might be the most realistic and effective, since indefinite funding cannot be ensured.

Potential funding sources:

- Legislative budget line-item

- Grants – Ecology’s Streamflow Restoration grants (fund as a program); other potential grants
 - Allocation of other Ecology resources
 - Increase the permit exempt well fee, as allowed by RCQ 90.94 (would require Ecology rule-making)
 - Contributions from local governments and tribes, possibly through an Interlocal agreement.
 - Include as part of county or conservation district ongoing education, outreach and incentive programs
3. Explain costs to all affected and not just regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders)
- There would be a cost for county or conservation district is added to their existing education, outreach and incentive programs.
 - Implementing landscaping changes for water conservation could require homeowner investments.
4. Possible funding mechanisms (if known) – see 2 above

***Policy types (not comprehensive list; feel free to add):**

- Education: providing information, encouragement and recognition
 - Incentives: providing incentives such as subsidies, tax or fee reductions, etc.
 - Compensation: reimbursing expenses for the action or for foregoing certain actions
 - Regulation: requiring certain actions
 - Fees or taxes: increasing the costs of undesired actions.
-

Template for policy proposals – Cross-WRIA Statewide Policy

Policy proposal

Name: CROSS-WRIA WATER CONSERVATION POLICY

- **State policy**

Statewide mandatory Water Conservation measures in unincorporated areas of the state during drought.

Description of policy idea (a short abstract):

Water Conservation Policies are a key component to mitigating water use from permit exempt wells and restoring flows in critical sub basins, and statewide mandatory water conservation measures in unincorporated areas during drought could help maintain flows. The focus would be on limiting landscape irrigation and other outdoor water use. Exemptions for growing food should be considered.

Identify the implementer and other key players

State Legislature

County Councils and Commissions

Department of Ecology

Describe recommended or required actions

The Legislature could pass a law requiring counties or the Department of Ecology to implement these policies.

Ecology could write these into rule with their existing authority.

County Councils and Commissions could pass ordinances mandating water conservation.

Describe benefits and challenges/obstacles

Benefits: Reduced water usage in key sub basins especially during drought. This helps reduce impacts on stream flows and adds resilience to climate change impacts.

Challenges/obstacles: It will require action by Legislature, Ecology, or Counties, and the allocation of funds. Both could be difficult right now. Some officials might not like making water conservation mandatory.

Description of purpose:

The purpose would be to incorporate water conservation into these plans to augment the water offsets and habitat projects to enhance stream flows in critical basins. This would add a safety factor to offsets, and support NEB objectives.

Description of identified concerns:

1. What, if any, committee members have expressed concerns with this policy idea and why?.

Agricultural interests are concerned with creating disincentives to local food production.

Tribes are concerned that without a program for compliance and enforcement, the policies will have little effect.

2. Do you anticipate that the affected parties will accept/adopt the action and why?

There is a good chance of getting the parties to act on these actions. Municipal water purveyors already incorporate these measures in their areas during drought. Drought water use limits are already specified in RCW 90.94.

3. What effort has been made to reach out to concerned members and how was the proposal edited to address their concerns?

Discussions have occurred at the Committee level and in side discussions between the Tribes and Counties.

Cost and funding sources:

1. Ballpark cost estimate (if known): unknown
2. Discuss potential funding sources and whether funding is one time or ongoing.

One-time funding could help put the policies into effect. Ongoing funding is necessary for effective education, outreach, and compliance activities.

Funding sources could be: legislative budget item; allocation of Ecology resources; increased PE well fee;

3. Explain costs to all affected and not just regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders:

Increasing the permit exempt well fee to help fund the program would add to development costs. Implementing landscaping changes for water conservation could require homeowner investments.

4. Possible funding mechanisms (if known): see #2

***Policy types (not comprehensive list; feel free to add):**

- Regulation: requiring certain actions
- Fees or taxes: increasing the costs of undesired actions.

Proposed Language: Project Tracking

April 16th, 2020

To: Watershed Restoration and Enhancement Committees, 90.94.030 RCW
From: Tristan Weiss, Streamflow Restoration Ecologist, WA Department of Fish and Wildlife
RE: Proposed project tracking language for inclusion in draft watershed plans

Project Tracking

The Committee has identified the need to track streamflow restoration projects and new domestic permit-exempt wells to: (1) improve the capacity to conduct implementation monitoring of streamflow restoration projects and actions, (2) build grant funding opportunities and track streamflow restoration associated costs, and (3) provide a template for adaptively managing emergent restoration needs. The Committee recommends piloting the Salmon Recovery Portal (<https://srp.rco.wa.gov/about>), managed by the Recreation and Conservation Office (RCO), for satisfying these needs. The implementation of project tracking through a pilot program using the Salmon Recovery Portal will be coordinated by the Washington Department of Fish and Wildlife in collaboration with the Washington Department of Ecology, RCO, and the Committee. To improve harmonization of streamflow restoration with ongoing salmon recovery efforts, local salmon recovery Lead Entity Coordinators shall be consulted prior to initial data uploads. University of Washington data stewards will be employed to conduct data entry, quality assurance, and quality control (see *Supplemental document: project tracking*).

Supplemental Document: Project Tracking

April 16th, 2020

To: Watershed Restoration and Enhancement Committees, 90.94.030 RCW
From: Tristan Weiss, Streamflow Restoration Ecologist, WA Department of Fish and Wildlife
RE: Proposed project tracking supplemental document for inclusion in draft watershed plans

1.1. Project Tracking

This section describes the elements required to track projects from a conceptual stage through completion. Project tracking is an essential component of implementation monitoring and adaptive management procedures. Therefore, it is recommended that projects be tracked through planning and implementation phases to enhance the Committee's ability to conduct implementation monitoring at the sub-basin and WRIA scale, monitor grant funding, identify plan successes and deficiencies, and streamline project development.

The Committee recommends a pilot program using the Salmon Recovery Portal (SRP; <https://srp.rco.wa.gov/about>) to conduct project tracking for the streamflow restoration effort under 90.94.030 RCW. As a statewide salmon recovery tracking tool, the capacity for SRP to allow for goal setting, hierarchical project tiers, supplemental information, and printing of automated reports makes it well suited for tracking projects associated with streamflow restoration and salmon recovery efforts. As a statewide tool administered by the Recreation and Conservation Office (RCO) and in partnership with salmon recovery Lead Entities (LE), the SRP provides a dynamic platform to track project offsets.

Tracking of projects will consist of two primary phases: (1) uploading required project information from all projects included in this plan into the SRP, and (2) uploading and updating all funded projects, project reports, and completed projects into the SRP database on an annual basis. Phase 1 will be coordinated and funded by the Washington Department of Fish and Wildlife (WDFW) and implemented by trained University of Washington (UW) data stewards in collaboration with RCO staff and Washington Department of Ecology (Ecology) staff. Phase 2 project uploads will be implemented by UW data stewards in consultation with Ecology grant management, RCO, and WDFW staff. To improve harmonization of streamflow restoration efforts with ongoing salmon recovery efforts, local salmon recovery LE Coordinators shall be consulted prior to initial data uploads. While input and oversight is welcomed, no commitment of additional work is required from LE Coordinators. Streamflow restoration projects not funded through the streamflow restoration grant program, will be updated by data stewards during any grant reporting to Ecology or RCO. Primary quality control measures will be performed by data stewards. Funds to support initial and ongoing costs of data steward data entry (Phases 1 and 2) will be provided by WDFW.

The Committee recommends, at minimum, the following data fields for streamflow tracking: WRIA, sub-basin, project description, funding source, estimated cost, project spatial boundaries or coordinates, project proponent (if applicable), estimated water offset or habitat benefits, and

Supplemental Document: Project Tracking

target implementation date. Projects with sensitive locations can be made private or those with undetermined locations can be entered as a project boundary or defined at the sub-basin scale. New permit exempt well locations at the section or sub-basin scale may be incorporated into the SRP to support implementation monitoring and adaptive management goals.

To support the implementation of the above pilot program for tracking projects under 90.94.030 RCW, WDFW has initiated pilot projects in two 90.94.020 RCW basins: the Nisqually River Basin (WRIA 11) and the Chehalis River Basin (WRIAs 22/23). These pilots are coordinated by WDFW in conjunction with RCO, Ecology, local LE Coordinators, and the Planning Units. Intended as a proof of concept, these pilots are planned to explore the capacity and effectiveness of the SRP to track streamflow restoration projects.

Policy Proposal – WRIA 13 WREC

Name: Deschutes Watershed Council (DWC)

Submitted by: Sue Patnude, Deschutes Estuary Restoration Team and Dan Smith, City of Tumwater

Entity: Deschutes Estuary Restoration Team; City of Tumwater and Regional Partners

Type of policy idea (see list below):

Implementation/Management

Description of policy idea (a short abstract):

The purpose of this policy is to create a watershed group to develop and execute an implementation process for following science-based recommendations provided from previous and future planning efforts for water quality and water quantity, such as the WRIA 13 Total Maximum Daily Load (TMDL) and Watershed Restoration Enhancement Committee (WREC) Plan.

This group would strive to be a collaborative partnership used to formally implement recommendations arising from the WREC as well as identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict, and manage water to concurrently achieve social, environmental, and economic objectives. This approach could deliver a higher value for watershed investments by considering all partners interests and providing multiple benefits. Such examples might include:

- Restoration of streamflow
- Improved water quality
- Permit-exempt mitigation
- Permit-required water right mitigation
- Protection of senior water rights, including Tribal water rights
- Flood management
- Restored and enhanced ecosystems
- Reliability of surface and groundwater supplies and working across jurisdictional boundaries.

It would build on successful models in other watersheds and utilize science-based tools with demonstrated effectiveness from those watersheds. The group could incorporate adaptive management techniques to address such future impacts as climate change. It would stress collaborative solutions that reduce conflict and avoid litigation.

Identify the implementer and other key players.

The key players could be comprised of equal parts of representatives with interest in protecting, conserving and restoring the Deschutes Watershed, including the Squaxin Island Tribe, cities, Thurston and Lewis Counties, special purpose districts (taxing authority), businesses, non-profit conservation, land trust organizations and citizens, and other integral stakeholders in the WRIA 13 Planning Committee.

Describe required actions (including current policies or codes, existing programs and their limitations, perverse incentives, loopholes, etc.).

Below are possible activities for the partnership to engage:

- Gathering representatives together and begin creation of the DWC.
- An Agreement could be required to receive benefits and participate in the partnership, and fund the partnership
- To be effective at implementing WREC plan recommendations and collaborating on watershed restoration, mitigation, or mitigation banking projects, the partnership would need additional financial resources to staff and maintain the water management group. Actions could include: Writing and passing legislation to obtain authority and funding to create the Deschutes Watershed Council, hire staff, and other administrative needs
- Creating an inventory of existing water quantity and quality regulations and incentive-based and/or voluntary water protection and conservation programs.
- Developing a critical path of specific actions needed to implement the plan created by the WREC. These actions must exist to improve water resources in WRIA 13. Water resources include both quantity and quality of all waters in the WRIA.
- The group could evaluate and pursue legislation for the development of mitigation banks to be used to offset impacts of future development of either permit-exempt wells or permit-required wells.
- Elements that can be considered for future consideration and mutual benefit can include legislative action, such as a fix to the Foster decision for WRIA 13, allowing water right and land use applications utilize a broad spectrum of surface and groundwater mitigation measure to evaluate watershed impacts using Net Ecological Benefit and other analytical tools, similar to the analysis undertaken to limit impacts of permit-exempt wells and increasing water withdrawals to meet future growth needs.
- Developing a citizen-based volunteer and education program to initiate a sense of place, ownership, and responsibility for the future of the Deschutes watershed.

Identify who the action impacts (if different than primary implementer).

Actions are high level and will need to have more detail created by the Council through a planning process. Potential impacts include additional staff time and resources.

However, implementing this group could potentially impact thousands of stakeholders across the watershed positively by promoting regional collaboration and implementing consistent water management strategies, ideally reducing costs and burdens on new development while increasing environmental awareness, stewardship, and restoration. An improved environment can impact all who rely upon on it, for uses including drinking water, recreation, fishing, tourism, which has an overall positive impact on human health. Stakeholders participating in the Council could cost share for projects with mutual benefits and seek funding from available federal, state, and local sources.

Describe benefits and challenges/obstacles.

The primary benefit of creating the Deschutes Watershed Council is building the team to protect, conserve, and restore the Deschutes Watershed.

Currently, a clear challenge to implementing projects that have a watershed-wide benefit is that there is no mechanism for sharing projects for all watershed management related issues. Other challenges include limited land, funding, and technology for stakeholders and the fact that outside of grant funding, there is no true incentive to collaborate on large-scale projects to address growth in the watershed.

Other challenges could be bringing people together and bringing jurisdictions into the process. Both the WREC and the Deschutes TMDL Advisory committee gatherings were well attended, and participants worked diligently to make change; both plans need to be implemented.

Additionally, there is no entity that is attempting to manage the water resources by watershed – waters do not flow within jurisdictional boundaries alone - bringing together management of permit-exempt and permit-required wells and other water resource impacts or protecting the entire watershed. The Deschutes Watershed Council could work together to establish larger projects intended to improve habitat, water quality and water quantity. Project sharing could result in mutual benefit and shared cost of space, infrastructure, especially at co-located boundaries. Creating a sense of place for citizens to engage in opportunities for water conservation and clean-up is important.

Description of purpose:

How would this recommendation enhance the WRIA 13 plan? Describe the desired result and how it enhances this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).

The purpose would be to create a watershed group to develop an implementation process and regional support for following science-based recommendations provided from previous and future planning efforts, such as the WRIA 13 TMDL and WREC. Forming this partnership could help bring issues to the surface, seek collaborative resolution and encourage enforcement when needed to obtain/maintain offset impacts and/or recognize water quality problems. Currently, the WRIA 13 group does not have a plan to address project implementation and other regional watershed management issues. This recommendation could build on the WRIA 13 plan by creating a partnership to implement the plan and provide a structure for collaboration on projects to mitigate impacts from new water right applications, transfers, and changes, whether those mitigation credits are applied immediately or held for future applications (water right mitigation bank). This group could promote a collaborative and meaningful watershed management partnership that can be empowered to address both water quality and water quantity issues, and associated impacts to the environment and natural resources. It could provide a process for all stakeholders to engage in future significant water right management changes and create a collaborative mitigation process for regional impacts. This is beneficial to the whole watershed, for streamflow and for exempt wells where they will be allowed.

Description of identified concerns:

What are some potential negative consequences that have been identified for this policy idea?

Potential negative consequences are the possible need for legislative action, additional resources to staff and maintain the group, and concerns about a potential conflict surrounding varied groups providing water rights approval recommendations to Ecology, such as the Thurston Water

Conservancy Board. Additionally, if the partnership operates, or is perceived to operate, in a manner inconsistent with federal, state, and local rules, its founding organizational principal, or partner needs and rights, the partnership could fail and/or face legal challenges.

What effort has been made to reach out to concerned members and how was the proposal edited to reflect this concern?

Effort has been made to reach out to some of the cities located in the Deschutes watershed. This proposal was edited to reflect and address concerns. This proposal has been reviewed by staff from the City of Tumwater, City of Olympia, City of Lacey, Thurston County, Lewis County, Squaxin Island Tribe, and the Deschutes Estuary Restoration Team.

Do you anticipate that the affected parties will accept/adopt the action and why?

Affected parties may be interested in a new mechanism to implement the WRIA 13 plan and discuss and collaborate on watershed management projects in the long-term. Both adaptive management and creation of an implementation structure have been discussed by the WREC.

Cost and funding sources:

Ballpark cost estimate (if known).

\$200,000 would likely be an annual cost needed. Grants could be available to get started and I would recommend introducing legislation to create authority and funding for the Deschutes Watershed Council. Local sponsorship from district legislators is available. We could also pursue a small member fee for groups interested in participating

Discuss potential funding sources and whether funding is one time or ongoing.

Potential funding sources for ongoing needs could come from the legislature, cost-sharing from members, grant funding, and possible revenues for processing water right applications and mitigation bank fees.

Explain costs to all affected and not just regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).

Annual costs needed to provide for a full-time employee for salary, benefits and other basic administrative needs to facilitate the partnership and manage projects and contracts.

Possible funding mechanisms (if known)

Legislative allocations, stakeholder/member involvement, grant funding, service revenues.

Policy proposal – WRIA 13 WREC

Name: Study of County Planning Streamflow Restoration Effectiveness

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Special Study

Description of policy idea (a short abstract):

1. *Identify the potential implementers and other key players.*
 - a. Consultant will conduct the study. Ecology or other entity would be lead for contracting.
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Conduct a study of how planning and permitting in the four south sound counties supports protection and enhancement of streamflow restoration, through protection and enhancement of groundwater recharge and other mechanisms.
 - b. The study would evaluate how and why county programs have been effective; gaps or areas where planning has been less effective in promoting streamflow restoration; and propose ways to improve rules to promote recharge enhancement and streamflow restoration.
 - c. The study report would be distributed to the study counties and relevant branches of state government to inform decision-making.
3. *Identify who the action impacts (if different than primary implementer).*
 - a. The study would have no direct impact.
 - b. The findings of the study could influence future state or local decision-making regarding state and county planning and streamflow restoration.
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: develops information to support improvements in planning to promote streamflow restoration
 - b. Challenges/obstacles: needs funding and staff resources for scope and grant development. There may be resistance to a review of county planning.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. Better information on how county planning and permitting affects streamflows could lead to improvements that support the Plan's goals for streamflow restoration. Such improvements would be one way to add safety factor to the goals of the Plan.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*

- a. This is a new proposal and has yet to be discussed. Counties may be reluctant to have their programs reviewed, or may be concerned with staff workload to provide information to the study.
- 2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. No discussions yet.
- 3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. The study may end up “on a shelf” and not result in any improvements.
- 4. *In what ways does your proposal address those concerns?*
 - a. It tries to define its content in a way that is relevant and actionable.

Cost and funding sources:

- 1. *What elements of the proposal are likely to require funding?*
 - a. The study will require funding. Developing the study proposal, providing information for the study, and disseminating results will require funding for staff resources.
- 2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Unknown at this time. Could be estimated by an experienced consultant.
- 3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. There would be no costs to others from the Study itself.

Policy proposal – WRIA 13 WREC

Name: Water Supply Data for Comprehensive Water Planning

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Monitoring and Research

Description of policy idea (a short abstract):

1. *Identify the potential implementers and other key players.*
 - a. Ecology, possibly consultant, support from Counties and WDOH
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. The following language is quoted from RCW 90.94.030:
 - i. (b) At a minimum, the plan must include those actions that the committee determines to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use.
 - ii. (c) Prior to adoption of the watershed restoration and enhancement plan, the department must 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.
 - iii. (d) The watershed restoration and enhancement plan must include an evaluation or estimation of the cost of offsetting new domestic water uses over the subsequent twenty years, including withdrawals exempt from permitting under RCW 90.44.050.
 - iv. (e) The watershed restoration and enhancement plan must include estimates of the cumulative consumptive water use impacts over the subsequent twenty years, including withdrawals exempt from permitting under RCW 90.44.050.
 - b. To ensure compliance with the law, and consistent with principles of sound water management, the following information needs to be developed:
 - i. Past permit exempt domestic water wells and water use
 - ii. All projected water use for the next 20 years
 1. Permit exempt wells
 2. Inchoate municipal water rights brought into active use
 - a. Mitigated versus unmitigated
 3. New water rights
 - c. The following screening level information for the WRIA as a whole will be developed and included in the Plan:
 - i. Municipal water supply connections expected in the next 20 years, by subbasin
 1. Can be determined by difference from total growth and future PE wells
 - ii. Total number of existing PE wells by county
 1. Can be determined by Counties from planning and permitting information

- d. Within the first five years of Plan implementation, the following information should be developed for each subbasin:
 - i. Total existing (2018 and earlier) connections in service using:
 1. unmitigated inchoate water rights
 2. mitigated inchoate water rights
 3. permit-exempt wells
 - ii. Total connections expected to be put into service in the next 20 years using:
 1. unmitigated inchoate water rights
 2. mitigated inchoate water rights
 3. new water rights
3. *Identify who the action impacts (if different than primary implementer).*
 - a. Workload and financial impacts for participants in developing the information
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: Provides a robust information base for comprehensive water planning.
Provides a context for the Plan and its goals.
 - b. Challenges/obstacles: Workload and financial requirements needed.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. Ensures that the Plan is in compliance with the law
 - b. Provides vital information for comprehensive planning by understanding both legacy water use and emerging trends.
 - c. Supports the overall goal of the plan to restore streamflow.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. Time spend on this task takes away from other important tasks
 - b. Capacity to do this work is limited
 - c. Ecology takes the position that this is not required by law
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. It has been discussed in Committee meetings, without result
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. None
4. *In what ways does your proposal address those concerns?*
 - a. Split study into initial screening analysis and future more detailed analysis

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. Staff time for collecting and analyzing information
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. One time funding, has not been determined

3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. No impact on other parties

Name: Rainwater Harvesting Education & Incentives

Entity: Thurston Conservation District

Type of policy idea: Education + Incentive

Description:

Rainwater collection has drawn a great deal of interest among landowners across Thurston County, including many in WRIA 13.

- 1) There is need for assurance from regulatory entities that rainwater collection is allowed under current DOE policy (Policy #1017). There is uncertainty around its legality in the community, likely based on experiences before that 2019 policy clarification. Clear institutional support from relevant entities at all levels would go a long way to reassuring landowners and would help encourage this practice.
- 2) There is a need for additional rainwater collection design support, at multiple scales. This could be educational, similar to the current DOE guidance page, which includes a calculator to understand the volume that can be collected and stored: <https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-recovery-solutions/Rainwater-collection>. However for larger collection systems such as agricultural cisterns, etc., some caveats might be necessary to clarify at what scale of collection an engineer should be engaged. To clarify, larger scale projects would still be at a relatively small scale of use, given the large volumetric storage capacities required for storing sufficient irrigation water for even modest outdoor use. Design support provided through this policy is intended only for those with PE wells*.
- 3) Financial assistance for rainwater harvesting infrastructure across WRIA 13. Assistance provided through this policy is intended for landowners with PE wells*. Current examples include Olympia's Rain Barrel Rebate program (<http://olympiawa.gov/city-utilities/drinking-water/conservation.aspx>).

*The limitation of support to PE well owners would apply only work performed as part of this policy, and would not restrict the work of individual partners to provide support for rainwater collection across WRIA 13.

Description of purpose:

Any use of rainwater in place of existing water infrastructure would represent a simultaneous reduction in use from PE wells. In all areas, rainwater infrastructure could provide a buffer against increased seasonality (e.g. hotter, drier summers; wetter winters) in precipitation expected with climate change; the strength of this buffer is linked to the volume of storage capacity.

Admittedly, the volumes involved in rainwater collection can be quite low compared to overall use of water. Offsets from well use would be minor, and water diverted from well use in CARAs may have limited positive impact, since any rainwater would likely be destined to replenish the aquifer anyway.

Depending on location, there can be particular / enhanced benefits to using rainwater harvesting as a stormwater management tool as well. Water harvesting has the potential to reduce storm water runoff volumes and associated impacts from pollutant transport and/or flashy stream flows. Rainwater collection also allows landowners a source of water that provides them with both a form of self-sufficiency and independence – values important to many landowners in our community – that also uniquely frames water in terms of a finite resource and that might encourage greater self-monitoring of water use.

The recommendation would not create identifiable offsets in terms of legal right, as there is no legal “water right” associated with rainwater harvest. DOE’s current policy guidance states that current collection of rainwater is allowed without a water right, but it does not grant one to collectors of rainwater.

Additionally, this policy does not seek to change current DOE policy. Rather, it aims to provide education about rainwater collection as well as technical and financial assistance to make this practice more feasible.

Description of identified concerns:

Concerns were mentioned about the scale of rainwater collection intended with this policy. Large infrastructure is required for relatively small-scale use of collected rainwater, and so support for larger infrastructure is necessary for even modest use at a household scale.

Current DOE policy allows the use of rainwater collection below levels that would affect existing water rights holders, and this policy would not address levels of rainwater collection that exceed that scope.

Additionally, there were concerns about the location of recipients of design/technical assistance and financial assistance and how any offsets in use of collected rainwater might best benefit the work of the WREC. The policy was changed to clarify that directed assistance provided through this policy applies to landowners with PE wells, who might offset their usage with collected rainwater.

Cost and funding sources:

1) Ballpark cost estimate:

- a. Regulatory assurance is perhaps the largest piece and would have little or no associated cost. This could be as simple as adding a paragraph to a webpage and linking to DOE’s current guidance page on rainwater collection.
- b. Rainwater collection design would also be expected to be low-cost at the urban residential scale. DOE has an existing rainwater collection calculator. Thurston CD could

create additional resources. Larger scale water collection will involve engineering, with a higher associated cost.

- c. Financial assistance for rainwater collection infrastructure, if limited to small-scale equipment such as rain barrels, could stay quite affordable. Olympia currently offers \$20 rebates for rain barrels.
 - d. D. Rain barrel education initiatives or “how to” workshops could be conducted at relatively low cost, to ensure that people understand how to properly assemble, site, secure, and use rainwater collection tools like rain barrels.
- 2) Only minor funding may be necessary for the first two components of regulatory assurance and rainwater collection design assistance. The majority of any funding would be for financial assistance for rainwater collection infrastructure or for more complex engineered design projects. The level of assistance would depend on the total level of demand, which is difficult to say. This could be easily capped, depending on available funds. Matching funding for initiatives could be available through other agencies/programs (NRCS/WSCC) as noted earlier.
- 3) No increased cost to affected parties is expected.

Template for policy proposals – WRIA 13 WREC

5-7-2020

Purpose of template

This following is a suggested template to help members document and justify your proposal. Additional work on the proposal can happen during or after the meetings and in advance of committee consideration.

How to use this document

Please complete the suggested elements below **as relevant/helpful to the development of your proposal**. Other elements can be added or other formats used if you or your entity have already written up a proposal. Incomplete proposals should still be submitted to the committee for consideration with gaps and improvements to be discussed and improved on during the policy proposal development process.

Please save this document with your initials and date – email to Gretchen (gretchen@cascadiaconsulting.com) or save to Box folder (e.g., “Policy template_GMCCG 04272020)

Policy proposal

Name: Dave Monthie

Entity: DERT

Type of policy idea (see list below): Regulation

Description of policy idea (a short abstract): **Small Water System Satellite Management of New Systems: Pursue improved mechanisms (e.g., ordinances, agreements) for ensuring that any new small water systems using exempt wells are owned and managed by a satellite management agency. All proposed new public water systems (primarily Group B systems with 14 or fewer connections) would be required to be owned/operated by existing larger public water systems. This has been state law since the 1990s, but has not been uniformly implemented. Likely mechanisms would be any necessary changes to the County Code for such new systems in rural Thurston County, and potentially an agreement between the County and the Thurston PUD. It may also need some sort of funding mechanism if the PUD cannot readily absorb the costs.**

1. Identify the implementer and other key players. Primary implementer would be the County, through inclusion in the Thurston County Code. Also involved would be larger public water systems in rural areas, particularly the PUD.
2. Describe required actions (including current policies or codes, existing programs and their limitations, perverse incentives, loopholes, etc.). **State law (RCW 70.119A.060 and 70.116.134) provides as follows:**

70.119A.060

(2) No new public water system may be approved or created unless: (a) It is owned or operated by a satellite system management agency established under RCW 70.116.134 and the satellite system management system complies with financial viability requirements of the department; or (b) a

satellite management system is not available and it is determined that the new system has sufficient management and financial resources to provide safe and reliable service. The approval of any new system that is not owned by a satellite system management agency shall be conditioned upon future management or ownership by a satellite system management agency, if such management or ownership can be made with reasonable economy and efficiency, or upon periodic review of the system's operational history to determine its ability to meet the department's financial viability and other operating requirements. The department and local health jurisdictions shall enforce this requirement under authority provided under this chapter, chapter 70.116, or 70.05 RCW, or other authority governing the approval of new water systems by the department or a local jurisdiction.

70.116.134

(2) Each county shall identify potential satellite system management agencies to the secretary for areas where: (a) No purveyor has been designated a future service area pursuant to this chapter, or (b) an existing purveyor is unable or unwilling to provide service. Preference shall be given to public utilities or utility districts or to investor-owned utilities under the jurisdiction of the utilities and transportation commission.

(3) The secretary [of DOH] shall approve satellite system management agencies meeting the established criteria and shall maintain and make available to counties a list of approved agencies. Prior to the construction of a new public water system, the individual(s) proposing the new system or requesting service shall first be directed by the local agency responsible for issuing the construction or building permit to one or more qualified satellite system management agencies designated for the service area where the new system is proposed for the purpose of exploring the possibility of a satellite agency either owning or operating the proposed new water system.

In some counties in Washington there are explicit agreements between the County and the local Public Utility District (PUD) to implement this type of approach to new Group B systems.

3. Identify who the action impacts (if different than primary implementer). Any proposed residential development proposing the use of an exempt well as the source of supply would have to first have to discuss having such a water system owned and operated by a larger system.
4. Describe benefits and challenges/obstacles. Larger water systems would provide professional management, which would include conservation and metering, as well as ongoing maintenance. It would ensure that applicable legal requirements for exempt wells (e.g., maximum daily use) are met, and would also provide better assurance of safe drinking water.

Description of purpose:

1. How would this recommendation enhance the WRIA 13 plan? Describe the desired result and how it enhances this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).

This would ensure that where necessary, exempt well withdrawals would be limited to authorized amounts, and other legal requirements met, assuring a minimal impact to aquifers and nearby streams. In addition, it would ensure that the systems are properly maintained, and make efficient use of the water.

Description of identified concerns:

1. What are some potential negative consequences that have been identified for this policy idea? Development costs might initially be marginally higher in order to meet water system standards.

Some developers/property owners might not want to sacrifice independent operation of wells. Public water systems might incur costs to set up and operate the new small systems, although on an ongoing basis the costs would be recovered in rates.

2. What effort has been made to reach out to concerned members and how was the proposal edited to reflect this concern? One informal and brief discussion with staff of the Thurston PUD, which would be the most likely candidate to perform this service. They indicated that the cost issue would be the largest one, and that there would be administrative challenges (with which they're familiar) managing an increasing number of very small systems.
3. Do you anticipate that the affected parties will accept/adopt the action and why? In all likelihood, there are not many such new small systems proposed, and the most affected parties might believe that there would be only minimal benefit from the proposal.

Cost and funding sources:

1. Ballpark cost estimate (if known). None known. The Thurston PUD likely would have a good idea of costs.
2. Discuss potential funding sources and whether funding is one time or ongoing. Initial costs would be borne by the proposed development. Ongoing costs for the County should be incidental, and for the PUD covered by rates.
3. Explain costs to all affected and not just regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders). See above. On the other hand, it would reduce costs to local health departments to intervene with small public water systems that are having public health problems (e.g., water contamination, lack of pressure, leaking pipes) if the system were built to good standards and properly and professionally maintained.
4. Possible funding mechanisms (if known). Some capital costs might be covered by state funding programs (e.g., DOH State Revolving Fund, Public Works Trust Fund) if they involved direct connection to an existing system.

***Policy types (not comprehensive list; feel free to add):**

- Education: providing information, encouragement and recognition
- Incentives: providing incentives such as subsidies, tax or fee reductions, etc.
- Compensation: reimbursing expenses for the action or for foregoing certain actions
- Regulation: requiring certain actions
- Fees or taxes: increasing the costs of undesired actions

Policy proposal – WRIA 13 WREC

Name: Adaptive Management responses

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Adaptive Management

Description of policy idea (a short abstract):

1. *Identify the potential implementers and other key players.*
 - a. Ecology, Counties
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Counties will track and document permit exempt well construction
 - b. Counties (or other entities possibly) would track offset projects
 - i. Monitor project status
 - ii. Document project completion
 - iii. Assess project success and quantify final offset amounts
 - c. Counties (or other entities possibly) would provide an annual report to Ecology on PE well construction and offset status by subbasin.
 - d. Beginning at the fifth year of implementation, the Counties would assess compare PE well installation and consumptive use amounts (using the methodology designated in the plan) to completed offset project amounts, and if the annual report indicates that offset amounts are behind the cumulative total of PE well consumptive use amounts, take the following actions:
 - i. Consult with stakeholders in the WRIA (members of the former WRE Committee, or the implementation organization if it has been established) to determine the status of offset project in process and discuss means to speed up offset project completion.
 - ii. Include in the annual report to Ecology the timeline for offset projects to exceed PE well construction and actions being taken to speed up offset project completion.
 - e. Ecology will review annual reports and assess progress in quantified offset benefits exceeding consumptive use from new permit exempt wells. Based on the report, if offset amounts are behind the cumulative total of PE well consumptive use amounts, Ecology will consider corrective action to protect senior water rights, which could include:
 - i. More restrictive water use restrictions to be into effect for the following year.
 - ii. A moratorium on building permits for new PE wells until sufficient progress is made on completed offset projects.
 - f. If offset project amounts are exceeding the “high growth” targets (on an annual prorated basis) then Ecology could relax any restrictions put in place, and allow reporting to go a longer cycle, such as every other year.
 - g. Ecology should conduct rule-making as necessary to implement
3. *Identify who the action impacts (if different than primary implementer).*
 - a. Water use restrictions, if implemented, could impact homeowners.

- b. Could impact developers and home buyers if actions slow development.
- 4. *Describe benefits and challenges/obstacles.*
 - a. Benefits:
 - i. Provides clear and substantive responses to PE well use exceeding offset amounts
 - ii. Protects against legal challenges to the Plan's effectiveness as a "Hirst fix"
 - iii. Is consistent with ESSB 6091's restriction on local governments' authority to allow permit-exempt wells; i.e., authority is conditioned on actions and projects actually offset consumptive water use by permit-exempt wells
 - iv. Provides incentives to complete projects in excess of PE well requirements
 - v. Support streamflow restoration and the rights of Tribes and senior water rights holders
 - b. Challenges:
 - i. County resistance to substantive requirements if offsets are falling short
 - ii. Workload requirements for County and Ecology
 - iii. Need for timeliness in reporting and Ecology action
 - iv. Provides incentives to implementation, but the discretion to act could undercut progress.

Description of purpose:

- 1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. This would add certainty that the Plan is being fully implemented and provide incentives to fund and complete projects

Description of concerns:

- 1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. Counties have expressed support in general terms for adaptive management, but specific details have not been discussed
- 2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. No discussions yet
- 3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. As described in challenges above
 - b. Details of adaptive management create complexity, which may result in confusion, resistance, loopholes, and unintended consequences
- 4. *In what ways does your proposal address those concerns?*
 - a. Trying to be simple and clear, but more discussion and negotiation is needed

Cost and funding sources:

- 1. *What elements of the proposal are likely to require funding?*
 - a. Workload for Counties and Ecology

2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Amounts need to be estimated
 - b. PE well fees
 - c. State funding
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. Delays in home construction due to moratoriums on wells
 - b. Impacts of water use restrictions

*Policy types (not comprehensive list; feel free to add):

- Education: providing information, encouragement and recognition
- Incentives: providing incentives such as subsidies, tax or fee reductions, etc.
- Compensation: reimbursing expenses for the action or for foregoing certain actions
- Regulation: requiring certain actions
- Fees or taxes: increasing the costs of undesired actions

Policy proposal – WRIA 13 WREC

Name: Durability of Implementation

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Adaptive Management; Regulation

Description of policy idea (a short abstract):

The Plan will identify the mechanisms that add certainty to its implementation over its life. These could include documentation of past practices and standard procedures; and expected linkages to existing policies, regulations, and planning documents.

1. *Identify the potential implementers and other key players.*
 - a. Ecology and Counties
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Provide language for the plan that describes how the plan will be implemented, based on past experience and standard operating procedures.
 - i. For Ecology, this could include Plan implementation; and rule development, adoption, and implementation.
 - ii. For Counties, this could include past practices and current practices with multi-jurisdictional plans; linkage to existing plans such as the Comprehensive Plan; and implementation through permitting rules.
3. *Identify who the action impacts (if different than primary implementer).*
 - a. It will indirectly impact all stakeholders in the Plan since to will improve the likelihood that the Plan will be improved and implemented.
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: documents procedures regarding how the Plan will be implemented, and increases the likelihood of Plan approval.
 - b. Challenges/obstacles: These descriptions are based on past or current practices, or they are recommendations. There may be reluctance to include anything in the Plan that looks like a commitment.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. It will improve the likelihood that the Plan will be improved and implemented.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. There is reluctance to include anything in the Plan that looks like a commitment.
2. *If you have discussed this with concerned members, what was the result of those discussions?*

- a. The proposal is based on discussions with the staff with the counties.
- 3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. It takes time to write down and it has no binding impact.
- 4. *In what ways does your proposal address those concerns?*
 - a. The proposal is based on past discussions.

Cost and funding sources:

- 1. *What elements of the proposal are likely to require funding?*
 - a. None anticipated
- 2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. n/a
- 3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. None anticipated

Policy proposal – WRIA 13 WREC

Name: Funding for Plan Implementation

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Fees

Description of policy idea (a short abstract):

Two strategies are proposed to fund implantation of the Plan:

- New Permit Exempt Well Fees will be increased to \$1,500 per connection, as authorized by RCW 90.94.030 (5)(c). The Plan will identify the specific use of these fees, but the following distribution is suggested:
 - \$450/connection: to Ecology for supporting implementation
 - \$250/connection: retained by the County for administration and implementation costs
 - \$400/connection: to Ecology to distribute to an organization to create capacity to support implementation of the plan. Ecology will identify the organization conducting this work and provide the funding support in accordance with laws and regulations.
 - \$400/connection: to Ecology to fund education and technical assistance for conservation and drought resilience. Ecology will identify organizations conducting this work and provide the funding support in accordance with laws and regulations.
- The Plan will request that the legislature provide sustainable, stable funding for implementation of the Plan. This funding will be available statewide to address priority activities in common with all WRIAs with a Plan or Rule developed under RCW 90.94. These activities might include:
 - Ecology's role in implementing the Plan and ensuring compliance with WRIA rules.
 - A statewide education and technical assistance program for water conservation and drought resilience.
 - Monitoring, modeling, and research to collect information collection that supports better water management

The Plan recommends a dedicated fee rather than reliance on the general fund. An example might be an annual fee on permit exempt wells charged as part of the annual property tax assessment.

1. *Identify the potential implementers and other key players.*
 - a. Ecology and Counties
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. Ecology would need to develop and adopt a rule to implement this.
 - b. Counties would play a role in managing fees
3. *Identify who the action impacts (if different than primary implementer).*
 - a. New home buyers would absorb the fee in their purchase price.
 - b. A positive impact to all citizens in the WRIA will occur from funding of implementation
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: support implementation of the Plan and the ultimate achievement of its goals.

- b. Challenges/obstacles: resistance to increased fees and homebuyer costs

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. Funding is critical to have a Plan that is actively implemented and achieves its goals.
 - b. Funding from the legislature is highly uncertain, and the law provides a mechanism to fund implementation through fees on new wells.
 - c. Funding needs are much larger than can be expected to be supported by local fees, so a parallel track to get statewide funding from the legislature should also be included.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. Resistance from counties and building industry to fees that add to the cost of homes.
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. Some willingness to accept a reasonable fee has been indicated.
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. Committee members want the use of the fees to be clearly described.
4. *In what ways does your proposal address those concerns?*
 - a. I have proposed potential uses. As the Plan is more fully developed those uses can be better clarified and refined, or new ones included.
 - b. Fee levels are also proposed that be modified as the Committee chooses.

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. The proposal is about funding.
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Summary of PE well fee proposal in the table below.
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. n/a

	# wells	Projected Annual Revenue – current	Ecology	County	Implementing Group	Conservation /drought	Total	Revenue - projected per year	
			Rate per well						
			\$ 450	\$ 250	\$ 400	\$ 400	\$ 1,500		
			Total per month						
WRIA 13	137	\$ 68,300	\$ 5,123	\$ 2,846	\$ 4,553	\$ 4,553	\$ 17,075	\$ 204,900	

Policy proposal – WRIA 13 WREC

Name: Monitoring and Research

Entity: Squaxin Island Tribe

Type of policy idea (see list below): Information support

Description of policy idea (a short abstract):

The Plan should include a section describing a monitoring and research strategy. Ideas to include:

- An overarching Monitoring and Research Plan as part of implementation
- Flow monitoring at all sites with ISF levels
- Ongoing Improvements in ground water information – data, maps, and models
 - Map and quantify areas of impervious surface and critical recharge zones
 - Improve regional groundwater models
 - Map flow paths and rates for stream baseflow
 - Expand ground water monitoring
- A program for habitat and NEB monitoring
- Monitoring of project implementation and effectiveness

The Plan should propose the development of a comprehensive monitoring and research strategy as part of Plan implementation. This strategy can refine the specific goals, elements, and priorities for monitoring and research.

1. *Identify the potential implementers and other key players.*
 - a. Various: Implementation Committee (if created). Ecology, Counties, CDs, Tribes, PUDs
2. *Describe proposed actions (including current policies or codes, existing programs and their limitations, problems to be corrected, etc.).*
 - a. A strategy should be included in the Plan, which describes a variety of possible studies and programs. The specific studies proposed will be developed by entities willing to invest time and obtain resources.
3. *Identify who the action impacts (if different than primary implementer).*
 - a. The proposed actions will benefit all citizens in the WRIA by providing improved data and information for water planning.
4. *Describe benefits and challenges/obstacles.*
 - a. Benefits: improved data and information for water planning.
 - b. Challenges/obstacles:
 - i. Specific projects or programs need to be defined in detail
 - ii. Funding will need to be obtained.

Description of purpose:

1. *How would this recommendation enhance the WRIA 13 plan? Describe the desired result and its purpose in this plan (we want to be clear how this relates to offsetting impacts from PEW OR be explicit that this is a benefit to the watershed even if not directly related to PEW impacts).*
 - a. Information on water resources is always in short supply. Decisions are made with limited information, with assumptions made to address uncertainty. As the Plan is

implemented, improved information will support adjustments to the Plan to better focus limited resources on the most significant problems and best solutions.

Description of concerns:

1. *What, if any, concerns with this policy idea have WRIA 13 members expressed or that you anticipate?*
 - a. This proposal is general in nature. Different members may interpret it differently or have different priorities for the study or program they'd prefer to focus on.
 - b. No funding is identified.
2. *If you have discussed this with concerned members, what was the result of those discussions?*
 - a. Discussions are supportive of the concept, although Committee members differ about what to include.
3. *Are there other potential downsides or objections to the proposal that you anticipate?*
 - a. Funding is a challenge, leaving implementation uncertain
 - b. The proposal is very general, and will likely occur piecemeal, if at all.
4. *In what ways does your proposal address those concerns?*
 - a. The proposal for developing a strategy would help to provide a more comprehensive and coordinated approach.
 - b. The proposal is intended to indicate the Committee's desires, while leaving the specifics flexible and adaptable.

Cost and funding sources:

1. *What elements of the proposal are likely to require funding?*
 - a. All of them
2. *Provide a rough cost estimate (if known) and discuss potential funding sources and whether funding is one time or ongoing.*
 - a. Impossible to estimate.
3. *Explain costs to other affected parties besides implementing regulators (for example: costs will increase for well drilling or new requirements on homeowners/home builders).*
 - a. Costs will depend on what is proposed and how it gets funded.
 - b. A monitoring or research study should not generate subsequent costs.

A Framework for Tracking Projects and New Permit-Exempt Wells using
Salmon Recovery Portal

This document describes the elements required to track projects from a conceptual stage through completion and monitor new permit-exempt domestic well construction. Project and well tracking are an essential component of implementation monitoring and adaptive management procedures. Therefore, it is recommended that projects be tracked through planning and implementation phases to enhance the Committee's ability to conduct implementation monitoring at the sub-basin and WRIA scale, monitor grant funding, identify plan successes and deficiencies, and streamline project development.

The Committee recommends a pilot program using the Salmon Recovery Portal (SRP; <https://srp.rco.wa.gov/about>) to conduct project tracking for the streamflow restoration effort under 90.94.030 RCW. As a statewide salmon recovery tracking tool, the capacity for the SRP to allow for goal setting, hierarchical project tiers, supplemental information, and printing of automated reports makes it well-suited for tracking projects associated with streamflow restoration and salmon recovery efforts. As a statewide tool administered by the Recreation and Conservation Office (RCO) and in partnership with salmon recovery Lead Entities (LE), the SRP provides a dynamic platform to track project development, funding, and offsets.

Tracking of projects will consist of two primary phases: (1) uploading required project information from all projects included in this plan into the SRP, and (2) uploading and updating all funded projects, project reports, and completed projects into the SRP database on an annual basis. Phase 1 will be coordinated and funded by the Washington Department of Fish and Wildlife (WDFW) and implemented by trained University of Washington (UW) data stewards in collaboration with RCO staff and Washington Department of Ecology (Ecology) staff. Phase 2 project uploads will be implemented by UW data stewards in consultation with Ecology grant management, RCO, and WDFW staff. To improve harmonization of streamflow restoration efforts with ongoing salmon recovery activities, local salmon recovery LE Coordinators shall be consulted prior to initial data uploads. While input and oversight is welcomed, no commitment of additional work is required from LE Coordinators. Streamflow restoration projects not funded through the streamflow restoration grant program, will be updated by data stewards during any grant reporting to Ecology or RCO. Primary quality control measures will be performed by data stewards. Funds to support initial and ongoing costs of data steward data entry (Phases 1 and 2) will be provided by WDFW.

The Committee recommends, at minimum, the following data fields for streamflow tracking: WRIA, sub-basin, project description, funding source, estimated cost, project spatial boundaries or coordinates, project sponsor (if applicable), estimated water offset or habitat benefits (using Pacific Salmon Recovery Fund (PCSRF) metrics or reference to the PCSRF list), and target project start date. Projects with sensitive locations can be made private or those with

undetermined locations can be entered as a project boundary or defined at the sub-basin scale. New domestic permit-exempt well location data will be drawn from the Ecology Washington State Well Report database¹. Well location data will be incorporated into the SRP using point coordinates, or at the section or sub-basin scale to support implementation monitoring and adaptive management goals.

To support the implementation of the above program for tracking projects under 90.94.030 RCW, WDFW has initiated pilot projects in two 90.94.020 RCW basins: the Nisqually River Basin (WRIA 11) and the Chehalis River Basin (WRIAs 22/23). These pilots are coordinated by WDFW in conjunction with RCO, Ecology, local LE Coordinators, and the Planning Units. Intended as a proof of concept, these pilots are examining the capacity and effectiveness of the SRP to track streamflow restoration projects.

¹ <https://apps.wr.ecology.wa.gov/wellconstruction/map/WCLSWebMap/default.aspx>

WRIA 13

Analysis of water use under climate change

February 26, 2020

Paul Pickett

Assumption: increased evapotranspiration (ET) is equivalent to increased water use. If yard and landscaping vegetation has higher ET, homeowners will increase water use at a similar rate.

Approach: Regression of average daily ET to average daily temperature, relative humidity, wind speed, and precipitation. Method suggested by Guillaume Mauger UW Climate Impacts group. Direct calculation is possible but is complex and data-intensive.

Data source: AgWeatherNet (WSU) Tumwater station.

http://weather.wsu.edu/?p=90150&UNIT_ID=330153

Data selected: 2018 chosen for analysis – a summer with moderate summer conditions. Multiple years possible but labor-intensive. Single year seemed reasonable for screening-level analysis. April through October – growing season.

Initial regression screening. Relationship to temperature and humidity strong, wind and precipitation weak. (See attached graph.)

Regression Results: multiple regression of ET to temperature and relative humidity

<i>Regression Statistics</i>	
Multiple R	0.930
R Square	0.865
Adjusted R Square	0.864
Standard Error	0.020
Observations	214
<i>Coefficients</i>	
Intercept	0.24255
Temperature	0.00235
Relative Humidity	-0.00357

Method to project future climate conditions: assume primary driver is temperature change. Northwest Climate Toolbox provides forecasts of future climate, including daily average temperatures. Relative humidity forecasts are not available, so humidity is assumed to not change significantly.

<https://climatetoolbox.org/tool/Future-Boxplots>

- Select location (same lat/long as AgWeatherNet station)
- Select season: spring (March-May), summer (June-August), fall (September-November)
- Select mean temperature

- Select high emissions scenario (current track)
- Box plots show mean of climate model results for seasonal mean temperatures

<i>Climate Toolbox</i>	Mar-May	Jun-Aug	Sep-Nov
1971-2000	49.5	62.7	51.2
2010-2039	51.7	65.3	53.3
Diff	2.2	2.7	2.1

Future ET results: Seasonal difference in temperatures applied to 2018 record. ET calculated with regression. Daily ET summed for a total difference by month and over the growing season.

Month:	Apr	May	Jun	July	Aug	Sept	Oct	Apr-Oct
2018	2.17	3.62	3.75	5.01	4.27	2.80	1.17	22.6
2040	2.35	3.81	3.93	5.20	4.47	2.98	1.36	24.1
Difference	0.18	0.19	0.19	0.19	0.19	0.19	0.19	1.6
percent	8.3%	5.3%	5.0%	3.9%	4.5%	6.7%	16.6%	6.9%

AgWeatherNet Poulsbo.S 2018 daily average weather data

