

# Appendix M – Policy Recommendation Proposals

**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 14 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.
  - b.

**Description of concerns:**

1. *What, if any, concerns with this policy idea have WRIA 14 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**

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## **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.

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

**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\*

Range\*

Section\*

\*Quarter-Quarter Section:

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

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

Latitude

Longitude

Make Mandatory

## 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.

Casing		Liner		Diameter		From		To		Wall Thickness		Steel		PVC		Welded		Thread	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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 rack:**     Yes     No                      Size of rack material \_\_\_\_\_ in.

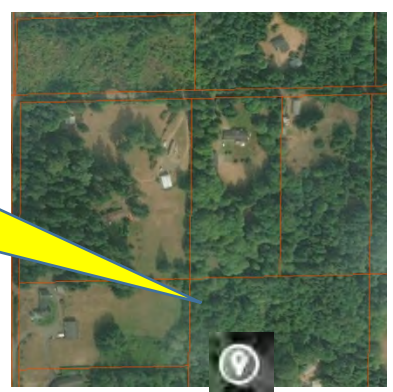
Notice of Intent No. \_\_\_\_\_  
 Unique Ecology Well ID Tag No. \_\_\_\_\_  
 Site Well Name (if more than one well) \_\_\_\_\_  
 Water Right Permit/Certificate No. \_\_\_\_\_  
 Property Owner Name \_\_\_\_\_  
 Well Street Address \_\_\_\_\_  
 City \_\_\_\_\_ County \_\_\_\_\_  
 Tax Parcel No. \_\_\_\_\_  
 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



Change this water well report into a web form.