

Stillaguamish Reservation Accounting Report:
September 26, 2005 - December 31, 2016

Ecology adopted the Instream Resources Protection and Water Resource Program for WRIA 5 (WAC 173-505) in August 2005. This rule set reservations of water for specific out-of-stream uses that are not subject to instream flows. The rule created two reservations of limited water supplies for different purposes of use:

- Single or small group domestic uses using a permit-exempt well. (3,231,360 gallons of water per day)
- Stock water uses (1 cubic foot per second for surface water and 20 acre-feet per year of ground water).

Status of Water Reservations

This report summarizes new reservation water uses September 26, 2005 through December 31, 2016. Debits from the reservation began September 26, 2005 because that was the date the rule became effective.

Single or Small Group Domestic Reservation Use

Estimating Method- Debits

Ecology estimated single or small group domestic reservation uses by reviewing public records, including:

- Skagit and Snohomish County Building Permit Records
- Skagit and Snohomish County Health Records
- Skagit and Snohomish County Recorded Documents
- Public Water System Plans
- NAIP Aerial Photo datasets
- MLS Listings
- Washington Department of Health's Sentry Database
- Washington State Department of Ecology's Well Log Database
- Washington State Department of Ecology-Issued Water Right Permits
- Public Water System Plans and Maps

Ecology reviewed these sources to determine:

- When water use was established. (*Did water use begin before or after September 26, 2005?*)
- The quantity of water to debit from the reservation.

Skagit and Snohomish counties provided information on building permits they issued from 2005 through 2016. With this information, and with other public records, Ecology determined the

type of water supply for each new plumbed building. Additionally, Ecology sometimes also had to determine if the building was a new or replacement structure. Ecology debited from the reservation if a new building's water supply was from a permit exempt well, and if it was not an accessory dwelling unit. Ecology debited different amounts from the reservation, depending on the type of effluent treatment system. If the building had a septic system, Ecology debited 175 gallons per day from the reservation. If the building connected to a sewer system, Ecology debited 350 gallons per day from the reservation.

Please see Appendix A for full reservation calculations.

WRIA 5 Water Reservation Use- Single and Small Group Domestic Use

Sub-basin	Reservation Quantity Consumptive Daily Use (gpd)	Reservation Quantity Used (gpd)	Reservation Quantity Remaining (gpd)	Percent of Reservation Remaining
Lower Stillaguamish	N/A	104,650	NA	NA
NF Stillaguamish	1,292,544	23,275	1,269,094	98.199%
SF Stillaguamish	969,408	32,550	936,858	96.643%
Entire Stillaguamish WRIA	3,231,360	160,475	3,070,360	95.034%

Livestock Water Reservation Use

The 2002, 2007, and 2012 USDA Censuses of Agriculture and the EPA Manual of Individual and Non-Public Water Supply Systems (1991) were used to estimate water use by livestock. . The USDA conducts a census of Agriculture every 5 years. Ecology anticipates that the 2017 census will be available for the 2017 accounting report.

In Snohomish County, there was a net decrease in livestock populations between 2002 and 2007, and 2007 and 2012. Therefore, it appears that there has not been a net increase of livestock water use since the adoption of WAC 173-505.

Figures

Figure 1 – Map showing location of wells and subbasin boundaries

Appendices

Appendix A- Ecology Permit-Exempt Use Counting Spreadsheet

Appendix B – Stillaguamish Stockwater Use Estimate