

Skagit Reservation Accounting Report: **April 14, 2001- December 31, 2010**

In consultation with local governments and tribes, Ecology developed an amendment to the Skagit Instream Flow Rule, WAC 173-503, which was adopted May 2006. The rule amendment established reservations of water for specific out-of-stream uses that are not subject to instream flows. The rule created three reservations of limited water supplies for different purposes of use:

- Domestic, municipal, and commercial/industrial uses. (9,370,208 gallons of water per day)
- Agricultural irrigation uses (3,564 acre feet of water per year)
- Stock water uses (324,000 gallons of water per day).

Applicability of the Water Reservations

This report summarizes water uses from April 14, 2001 – December 31, 2010 using the reservations. The reservations apply back to April 14, 2001 in order to provide uninterrupted water supplies for water users that established their water use after the original Skagit Instream Flow Rule (WAC 173-503) was adopted, on April 14, 2001. Under the original rule, all water uses established after this date were subject to regulation when the senior instream flows were not being met. The rule amendment adopted by Ecology allows wells developed after April 14, 2001 a legally secure water supply by including their uses under the reservation.

Domestic, Municipal and Commercial/Industrial Reservation Use

Estimating Method-Debits

Domestic, municipal and commercial/industrial reservation uses were estimated by reviewing a number of different sources:

- Building permits and land division decisions made in Skagit and Snohomish Counties
- New water right permits
- Water well log reports
- Public Water System Approvals

These sources were reviewed to determine:

- If the water use was established after April 14, 2001 and qualifies as a deduction to the reservation.
- The quantity of water to deduct from the reservation.

Skagit and Snohomish Counties provided its estimate of building permits and land division decisions that rely upon permit-exempt wells for the water source. Land division records are not counted as reservation uses but are provided as an estimate of future reservation demand. Ecology also reviewed well log records for new wells drilled in WRIA 3 and 4. Other information sources include local and state Health Department records relating to new public

water systems developed in the sub-basin management units. Ecology reviewed agency records of any new water right decisions made by Ecology that should be deducted from the reservation quantities. For the quantity of water to deduct for water uses, the default water use figures in WAC 173-503 were used. These figures are 350 gallons per day per residential water use connection and 5,000 gallons per day for commercial/industrial uses was used to calculate water quantity, unless other data indicate another figure should be used. For instance, engineering reports approved by the Washington State Department of Health for a water system in the Carpenter-Fisher basin projects 800 gallons per day maximum daily demand. In future years, metering or other measuring data will be used and may adjust the water use figures.

All of the information on water use provided by these parties was reviewed, and cross-referenced, if possible. For instance, Ecology compared permit counts provided by the counties with well log reports, to attempt to assess the water use estimates.

No water rights have been approved in this basin between April 14, 2001 and December 31, 2010 using water from the reservation.

Please see the appendix for more details on the reservation use accounting.

Estimating Method-Credits

The Skagit River instream flow rule allows for mitigation plans to be developed to offset the impact of a withdrawal on stream flows, subject to Ecology's approval. The rule also allows for credits to the reservations from septic return flow at 50% of the water use from the reservation.

Skagit River Basin Water Reservation Use- Residential & Commercial/Industrial Use

Sub-basin management unit	Reservation Quantity Max. Average Consumptive Daily Use (gpd)	Reservation Quantity Used (gpd)	Reservation Credit (gpd)	Reservation Quantity Remaining (gpd)
Alder Creek	81,430	350	175	81,255
Anderson / Parker /Sorenson	20,034	1,050	525	19,509
Careys	11,633	350	175	11,458
Carpenter/Fisher	11,633	30,200	14,700	0 (-3,867)
Childs/Tank	18,096	10,600	2,800	10,296
Coal	18,742	1,750	875	17,867
Cumberland	25,851	0	0	25,851
Day	131,839	1,400	700	131,139
Gilligan	25,851	0	0	25,851
Grandy	147,350	10,850	5,425	141,925

Hansen	38,130	5,600	2,800	35,330
Jones	67,212	1,400	700	66,512
Loretta	11,633	700	350	11,283
Mansser	15,511	700	350	15,161
Morgan	13,572	350	175	13,397
Muddy	28,436	1,050	525	27,911
Nookachamps - East Fork	14,218	2,800	1,400	12,818
Nookachamps - Mainstem	12,279	17,500	8,750	3,529
O'Toole	23,266	0	0	23,266
Red Cabin	42,653	350	175	42,478
Salmon/Stevens watershed	5,170	0	0	5,170
Wiseman	18,095	1,750	875	17,220
Skagit-Lower	5,254,103	15,750	7,875	5,246,228
Skagit-Middle	1,394,655	24,950	9,975	1,379,680

Sub-basin management unit	Reservation Quantity Max. Average Consumptive Daily Use (gpd)	Reservation Quantity Used (gpd)	Reservation Credit (gpd)	Reservation Quantity Remaining (gpd)
<i>Skagit-Upper*</i>	1,938,816			
Barr Creek	25,851	350	175	25,676
Corkindale Creek	25,851	1,050	525	25,326
Everett Creek	25,851	0	0	25,851
Gravel Creek	25,851	350	175	25,676
Olson Creek	25,851	350	175	25,676
Prairie Creek	25,851	350	175	25,676
Sutter Creek	25,851	350	175	25,676
Upper Skagit-mainstem		66,300	20,650	1,893,166
Upper Skagit-Total	1,938,816	69,100	22,050	1,891,766

Carpenter-Fisher Sub-Basin Closed

The water reservation for the Carpenter-Fisher sub-basin has been fully used and the basin will be closed to further unmitigated water withdrawals. Water supplied from existing water rights and existing wells will not be affected by the closure.

Ecology is evaluating the impacts of well pumping on stream flows in the Carpenter-Fisher basin by running a newly developed groundwater model for the area. If any changes to water use accounting are proposed, Ecology will publish them in a Skagit River Water Resources Supply Bulletin, as described in WAC 173-503-116.

Agricultural Irrigation Water Reservation Use

No water rights for agricultural irrigation have been issued from this reservation between April 14, 2001 and December 31, 2010. Consequently, the available amount is 3,564 acre feet of water.

Livestock Water Reservation Use

The Skagit Instream Flow Rule provided 324,000 gallons of water per day for new stock watering in the Lower, Middle and Upper Skagit River sub-basin management units. Existing operations before April 14, 2001 are not subject to this limitation. Expansions of herd size qualify as new water uses. Replacement animals to livestock operations established before April 14, 2001 are not considered to represent a new livestock water uses.

To determine the expansions of livestock operations in the Skagit River Basin, Ecology took the following approach. Ecology estimated new livestock water use by using livestock census information contained in the most two recent versions of the USDA Census of Agriculture for Skagit County. The USDA Agriculture Census is taken every five years, in years ending in 2 and 7. The most recent editions are from 2002 and 2007 and are available at the USDA website: http://www.nass.usda.gov/Census_of_Agriculture/index.asp. From this report, Ecology obtained the number of livestock and developed a water use per animal estimate using standard water use figures for different livestock operations using the US Environmental Protection Agency's Manual of Individual and Non-Public Water Supply Systems (1991). Any increase in numbers of animals from 1997- 2007 were considered to represent new uses. Ecology then determined estimated water use for the new livestock for which water use estimates are known. The product of this assessment was deducted from the Stock Watering reservation. Ecology estimates that 47,794 gpd was used from the Stock Watering Reservation from April 14, 2001- December 31, 2010. This equates to approximately 15% of the reservation being utilized with 85% remaining.

Ecology recognizes that this accounting method may over or under-estimate livestock water use. However, it represents the best estimating method, given the state of data and the resources the agency would have to devote to more accurately calculate stock water use. Please see Appendix D for more details on the livestock water use estimates.

Sources

United States Department of Agriculture, National Agricultural Statistics Service. *2002 and 2007 Census of Agriculture*. Accessed April 24, 2009 at: http://www.nass.usda.gov/Census_of_Agriculture/index.asp.

United States Environmental Protection Agency, Office of Water. *Manual of Individual and Non-Public Water Supply Systems*. EPA570/9-91-004, May 1991.

Mitigation Plans:

Scientifically sound mitigation plans can be submitted by either an applicant or a governmental agency to the department for consideration. A mitigation plan may be approved if the proponent can demonstrate to the department's satisfaction that when the mitigation is implemented the proposed withdrawal(s) will not impair senior rights, including instream flow rights, adversely impact instream resources, or diminish water quality.

Approved Mitigation Plans Submitted by an Applicant:

Skagit PUD No. 1 (Marblemount) – G1-28137

Town of Hamilton – G1-28066

Interruptible Water Rights:

Even though it is not a reservation, WAC 173-503-050 indicates that 200 cfs of interruptible water (can only be withdrawn/diverted if instream flows established in WAC 173-503-030 are being met) is available to be appropriated. Although uninterruptible water supplies, the water reservations provided in WAC 173-503-073 and WAC 173-503-074 total 25 cfs and are subtracted from the 200 cfs total allocation. That leaves approximately 175 cfs available for uninterruptible appropriation.

Two interruptible water rights were issued in 2008-2010. Water right S1-24876 was issued in 2009 authorizing 1.22 cubic feet per second of water and 194 acre-feet to be withdrawn from Debay Slough. A preliminary temporary water right, S1-28607 was issued in 2010 authorizing 8.912 cfs and 350 acre-feet to be withdrawn from the Lower Skagit River. Thus, 164.868 cfs of water remains to be used on an interruptible basis from the Skagit River basin.

Appendices

Appendix A- Skagit County Permit Counting Spreadsheet

Appendix B- Snohomish County Permit Counting Spreadsheet

Appendix C- Livestock Water Use Spreadsheet

You have a right to appeal this action to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this document. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do the following within 30 days of the date of receipt of this document:

- File your appeal and a copy of this document with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this document on Ecology in paper form - by mail or in person. (See addresses below.) Email is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk P.O. Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board Environmental Hearings Office 1111 Israel Road SW, Suite 301 Tumwater, WA 98501	Pollution Control Hearings Board P.O. Box 40903 Olympia, WA 98504-0903

Please also send a copy of your appeal to:

Jacqueline Klug
 Department of Ecology
 Northwest Regional Office
 3190 160th Avenue SE
 Bellevue, WA 98008

For additional information visit the Environmental Hearings Office Website:

<http://www.eho.wa.gov>

To find laws and agency rules visit the Washington State Legislature Website:

<http://www1.leg.wa.gov/CodeReviser>