

Nooksack Watershed, WRIA 1

This focus sheet provides information on the availability of water for new uses in the Nooksack Watershed. This information provides a starting point for potential water users in determining the best strategies for securing water for a future project or proposal in this area.

The Nooksack watershed, also known as Water Resource Inventory Area (WRIA 1), comprises the western portion of Whatcom County, as well as small portions of Skagit County and British Columbia, Canada. It is bounded by Bellingham Bay and the Strait of Georgia on the west and its east side includes portions of the Cascade Mountain range, including Mt. Baker. This watershed has a mix of urban, agricultural, rural land uses.

This watershed consists of the Nooksack River, which originates in the Cascade Mountains, and its numerous tributaries. It also includes the Sumas River (tributary to the Fraser River), and coastal drainages including the Lummi River, and Dakota, California, Terrell, Squalicum, Whatcom, Padden, and Chuckanut Creeks.

The Nooksack River is a source of drinking water for the city of Bellingham, and several other cities in Whatcom County.

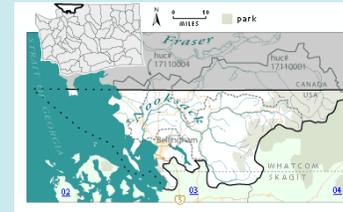
Average precipitation varies between 35 and 70 inches per year in the western portion of the watershed, and increases to maximum average of 140 inches at Mt. Baker. Most of this precipitation arrives during the winter months when water demands are the lowest. Only a fraction of the water becomes available for human and economic uses. During the summer, there is little rain and many streams and rivers are dependent on groundwater inflow. This means that groundwater and surface water are least available when water demands are the highest.

Most water in the Nooksack watershed is already legally spoken for. Increasing demands for water from ongoing population growth, diminishing surface water supplies, declining groundwater levels in some areas during peak use periods, and the impacts of climate change limit Ecology's ability to issue new water rights in this watershed.

Factors affecting water availability

Instream Resources Protection Program rule

An Instream Resources Protection Program rule for the Nooksack watershed ([WAC 173-501](#)) was adopted in 1985. The purpose of the rule is to protect senior water rights, to maintain a healthy ecosystem, and to meet future water



Definitions

Instream flow: A stream flow protected in a rule. These rules specify the amount of water needed in a particular place for a defined time, and typically follow seasonal variations. They are the flow levels needed in the river to protect and preserve instream resources and uses.

Mitigation plan: A scientifically-sound plan intended to avoid impairment to existing water rights or capturing water from a closed source.

Non-consumptive use: A use of water that does not diminish the quantity or quality of water in the water source.

Permit-exempt well: The state Groundwater Code allows for certain uses of small quantities of groundwater without obtaining a permit from Ecology. (RCW 90.44.050)

Seawater intrusion: The movement of salt water into freshwater aquifers.

resource management objectives. Such rules are required by state law (RCW 90.54). The rule establishes minimum instream flows for rivers and creeks in the watershed and requires all lakes and ponds to be retained in their natural condition.

Water rights issued after the date of the rule for surface water or groundwater connected to surface water are subject to these established instream flows. In many instances, this means that Ecology is unable to issue new water rights in the watershed because the new right will either impair a senior water right holder or the established minimum instream flow

Future water diversions or withdrawals that are shown to negatively affect the minimum instream flows or the natural state of the lake or pond cannot be approved without a mitigation plan. As such, it is likely that new water right applicants will need a mitigation plan to secure a new water right.

Watershed Planning under RCW 90.82 (Watershed Planning Act)

In 1998, local and state governments, Indian tribes, and stakeholders representing a variety of local interests began to develop a watershed plan for WRIA 1 under RCW 90.82. The plan was adopted in 2005, after which efforts began to implement it. One fundamental element of the plan is the Instream Flow Action Plan. The Action Plan describes a process to review and quantify instream flow needs in the Nooksack watershed using accepted scientific methods developed since the adoption of the existing instream flow rule. Ecology intends to use this information to determine the availability of water for new consumptive uses.

Coastal areas

Any groundwater withdrawals located in the coastal areas are evaluated for the risk of sea water intrusion into existing fresh groundwater supplies. Applicants for groundwater permits in coastal areas may need to develop an adequate mitigation plan to address this risk.

Closures

The following surface water sources -- and any groundwater connected to them -- are closed year-round by the current rule to further appropriations (unless mitigated). The closures are based on recommendations by the Department of Fish and Wildlife.

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|------------------|----------------------------|-----------------|
| Barrett Lake | Fourmile Creek | Saar Creek |
| Bells Creek | Green Lake | Saxon Creek |
| Bertrand Creek | Johnson Creek | Squalicum Creek |
| California Creek | Kamm Ditch/Stickney Slough | Sumas River |
| Chuckanut Creek | Kendall Creek | Tenmile Creek |
| Colony Creek | Lake Terrell | Whatcom Creek |
| Dakota Creek | Lake Whatcom | Wiser Lake |
| Deer Creek | Oyster Creek | |
| Fishtrap Creek | Padden Creek | |

In addition to year-round closures, certain surface water bodies—and the groundwater connected to them—are closed to new withdrawals during specific times of the year:

Water body	Closure dates
Anderson Creek	May 1 to Oct. 31
Canyon Creek	July 1 to Oct. 31
Cornell Creek	July 1 to Oct. 31
Gallop Creek	July 1 to Oct. 31
Hutchinson Creek	July 1 to Oct. 31
Maple Creek	July 1 to Oct. 31
North Fork Nooksack River	Sept. 1 to Oct. 31
Porter Creek	July 1 to Oct. 31
Racehorse Creek	July 1 to Oct. 31
Silver Creek	May 1 to Oct. 31
Skookum Creek	July 1 to Oct. 31
Smith Creek	May 1 to Oct. 31
South Fork Nooksack River	July 1 to Oct. 31
Terrell Creek	May 1 to Oct. 31
Thompson Creek	July 1 to Oct. 31
Wiser Lake Creek	May 1 to Oct. 31

Though not closed, the Mainstem and the Middle Fork Nooksack River are subject to year-round minimum instream flows. Based on USGS streamflow data, these minimum instream flows are not met an average of 100 days per year, often during the periods when new water rights are desired (late spring through early fall).

Federal Reserved Water Rights and Tribal Involvement

Federally Reserved Water Rights are not quantified at this time and thus the legal availability of water in these areas is undetermined.

The Lummi Nation and the Nooksack Tribe have reservation lands within WRIA 1. The Tribes are very concerned about maintaining flows and fish habitat in the watershed. By request, Ecology notifies the Lummi Nation of all new water right applications and decisions.

Water currently available for new uses

Any applicant for new non-interruptible water may need to hire consultants to carry out technical studies and develop mitigation plans to offset impacts to stream flows. Additionally, applicants may require the services of an attorney to defend the proposed project against appeals by concerned stakeholders and/or existing senior water right holders. *None of these steps will guarantee the application will be approved.*

Water rights for non-consumptive uses in the basin may in most cases be approved by the Department of Ecology.

Note: Applicants are encouraged to connect to an existing public water supply system if available. This is the simplest and fastest option for securing a water supply.

Additional options for processing water right applications

The groundwater permit exemption allows certain users of small quantities of groundwater (most commonly, single residential well owners) to construct wells and develop their water supplies without obtaining a water right permit from Ecology. In a recent decision, the Washington State Supreme Court ruled that counties must ensure new uses of water (including permit-exempt wells) will not impact instream flows or closed water bodies when it approves building permits or subdivision applications. Even though the rule adopted by Ecology for this watershed does not limit the use of permit-exempt wells, counties are required under the Growth Management Act to protect streams and other waterbodies in their county. Counties may not issue permits for projects that will rely on a permit-exempt well, unless it determines that the water use will not impact instream flows or closed water bodies.

For more information on the decision, visit <http://www.ecy.wa.gov/programs/WR/nwro/hirst.html> . For more information on the groundwater permit exemption, visit <https://fortress.wa.gov/ecy/publications/documents/1511016.pdf> .

For more information on how instream flow may impact county approvals, visit Department of Ecology's [Domestic Water Availability Maps](#) and contact your county to find out how these restrictions apply to your project.

If you cannot hook-up to an existing system, or more water is needed than can be obtained from a permit-exempt well, processing an application through the Cost Reimbursement Program <https://fortress.wa.gov/ecy/publications/summarypages/0511016.html> may be an option.

For more information on this and other options, refer to "Alternatives for Water Right Application Processing" www.ecy.wa.gov/pubs/1111067.pdf.

Pending water right applications in this watershed

Washington water law is based on the "prior appropriation" system, often called "first in time, first in right." Applications for water from the same source must be processed in the order they are received. (There are certain exceptions, see "Additional options for processing water right applications" above.) Ecology asks anyone who needs a water right (new, change, or transfer) to submit the pre-application consultation form and meet with us to review your water supply needs and project proposal.

- Apply for a New Water Right <http://www.ecy.wa.gov/programs/wr/rights/newrights.html>
- Apply to Change or Transfer a Water Right or Claim http://www.ecy.wa.gov/programs/wr/rights/change_transfer_use.html

The map in this document shows some of the factors that will be considered when evaluating water right permit applications. Here are some information sources to assist you with your research:

- Locate and research water rights on land parcels anywhere in the state (Water Resource Explorer) <http://www.ecy.wa.gov/programs/wr/info/webmap.html>
- Pending Water Right Applications by County <http://www.ecy.wa.gov/programs/wr/rights/tracking-apps.html>
- Subscribe to a water right application RSS feed for a county or WRIA http://www.ecy.wa.gov/programs/wr/rights/wr_app_rss.html

- WRIA map showing the total number of water right claims, certificates, permits and applications
http://www.ecy.wa.gov/programs/wr/rights/Images/pdf/waterright_wria_opt.pdf
- Search and view well reports using a variety of search tools
<http://apps.ecy.wa.gov/welllog/>

For more information

Northwest Regional Office
 Water Resources Program
 3190 160th Ave. SE
 Bellevue WA 98008
 425-649-7000

Bellingham Field Office
 1440 10th St, #102
 Bellingham WA 98225
 360-715-5200



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