

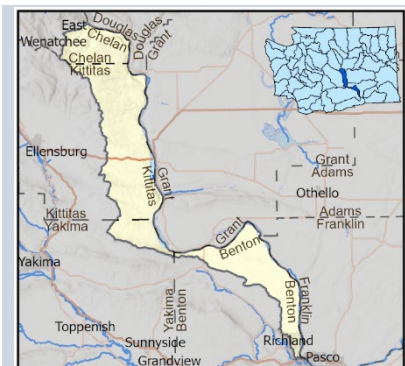
WRIA 40 Alkali-Squilchuck Watershed Water Availability



Ginko Petrified Forest State Park view; Photo by mrcjhicks, <https://flic.kr/p/eNG1iW>

Overview

- Introduction to WRIA 40
- Water Availability Factors
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What is a watershed?

Washington is divided into 62 major watersheds or Water Resource Inventory Areas (WRIAs), which are areas that each capture precipitation and funnel rain and snowmelt through smaller subbasins into streams, tributaries, and rivers and typically drain to marine waters or the Columbia River.

Introduction to WRIA 40

The Alkali-Squilchuck Watershed or Water Resource Inventory Area (WRIA) 40 is defined as the area that drains north and east to the Columbia River from south of Wenatchee to the city of Richland. It is located in south-central Washington, in portions of Chelan, Kittitas, Yakima, and Benton counties.

Larger tributaries include Brushy, Colockum, Hanson, Johnson, Quilomene, Skookumchuck, Squilchuck, Stemilt, Tarpiscan, Tekison, and Whiskey Dick creeks; Alkali, Corral, Cow, and Sourdough canyons; and Rocky, Ryegrass, and Schnebley coulees.

How can I get water?

Depending on your proposal, you may have more than one option to acquire a reliable water supply:

- Connecting to an existing water system is usually the fastest and easiest option if your project is within the system’s service area.
- Using a permit-exempt well if you meet the limits under state law.
- Purchasing an existing water right and transferring it to the new use.
- Applying for a new water right, which may need mitigation.



See the *Options for Acquiring Water* section for more information about water right permit options and when to meet with Ecology staff.

Washington Water Law Waters of the state belong to the public and can't be owned by any one individual or group. Water right holders have the right to USE water, from a set source, for a particular purpose, in a specific location.

The Department of Ecology is responsible for managing the water resources of the state, including issuing the right to use water as well as protecting the instream resources for the benefit of the public.

Washington water law is based on the “prior appropriation” system, often called “first in time, first in right.” New water rights may not harm older water rights. Applications for water from the same source must be processed in the order they are received, although there are certain exceptions.

Applicable Laws and Regulations

- [RCW 90.03](#): Washington Water Code
- [RCW 90.44](#): Regulation of Public Groundwaters
- [RCW 90.54](#): Water Resources Act of 1971

Water Availability Factors

Due to Washington’s varied land uses, terrain, and precipitation levels, water availability for new water right permits varies dramatically across the state. In the Alkali-Squilchuck Watershed, key factors affecting water availability include:

- Precipitation.
- Existing water rights, including unquantified Federally Reserved Rights.
- Reclamation withdrawal.
- Watershed planning.

Precipitation

Much of central Washington is arid, receiving less than 20 inches of rain annually. Most of this precipitation arrives during the winter months when overall water demands are the lowest. During the summer, snowpack is gone, there is little rain, and naturally low stream flows are dependent on groundwater inflow. This means that groundwater and surface water are least available when water demands are the highest.

Existing water rights

Water rights have been issued in the Alkali-Squilchuck Watershed for over 100 years, and as a result most water in the watershed is already legally spoken for or “appropriated.”

Federal lands, including the Hanford Reservation and the Yakima Firing Range, cover most of the watershed. Federally reserved Water Rights have not been quantified at this time, thus the legal availability of water in these areas is undetermined.

A water right adjudication has taken place in the Squilchuck and Stemilt subbasins. Prior adjudications are an indication that most, if not all, of the available water has already been allocated.

Reclamation withdrawal

In 2004, the U.S. Bureau of Reclamation filed notice with the Department of Ecology that the United States intends to make examinations and surveys for the use of the un-appropriated waters of the Columbia River and its tributaries above Priest Rapids Dam, pursuant to RCW 90.40.030. The withdrawal of these waters from future appropriations is currently in effect until December 23, 2023.

At the most recent renewal of the withdrawal, Reclamation released 48,880 acre-feet per year of water. Ecology is processing new applications for both surface water and groundwater in select locations in the numerous watersheds impacted by the withdrawal, but the release is insufficient to meet the total demand. The withdrawal may be extended, and Ecology expects Reclamation to request an extension before the withdrawal expires.

Instream flow rules

Instream flow rules are an element of water and river management that help maintain healthy ecosystems that support fish, communities, and economies. The Alkali-Squilchuck Watershed drains into the Columbia River, which has an instream flow rule ([WAC 173-563](#)¹). Instream flow rules are adopted to preserve the uses and values of individual rivers and streams.

The instream flow rule:

- Protects the river from new permitted water rights by setting minimum flow levels, which are like water rights for the stream. Instream flows do not put water in the streams and do not affect existing (senior) water rights.
- Creates year-round or seasonal closures for some streams, protecting existing flows from new appropriations.

Watershed planning

Watershed planning has taken place at the northern end of WRIA 40 within the Squilchuck, Stemilt, and Malaga subbasins (formally known as WRIA 40A). Preliminary assessments by the local planning unit indicate that “most of the physically available water entering WRIA 40A is withdrawn or diverted for beneficial uses.” Therefore, water is not available in these subbasins for new appropriations. Surface water and groundwater availability is also currently very limited throughout the entire basin.

Potential new supplies

The Office of Columbia River (OCR) is aggressively pursuing new water supply opportunities throughout the Columbia Basin. Water for new appropriations may be possible from the Sullivan Lake or Lake Roosevelt projects. You can find more information at the [OCR website](#).²

Summary

Increasing demands for water over time, from ongoing population growth, agriculture, and other consumptive uses as well as associated land use practices, have resulted in lower streamflows and declining groundwater levels in some areas. These decreases have impacted important resources for fisheries and general stream health. The impacts of climate change in WRIA 40 are also yet to be fully realized. However, it is apparent that water availability is limited throughout the Alkali-Squilchuck Watershed.

¹ <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-563>

² <https://ecology.wa.gov/OCR>



Options for Acquiring Water

Permit-exempt options

State law, [RCW 90.44.050](#),³ exempts the following uses from the water right permitting process:

- Single or group domestic uses, not exceeding 5,000 gallons per day (gpd).
- Irrigation of up to a half-acre of non-commercial lawn or garden.
- Industrial purposes (such as water for a store, restaurant, or small industrial facility, or irrigation of a small commercial farm), not exceeding 5,000 gpd.
- Stockwater to provide drinking water for stock animals. Other stock-related purposes (such as washdown of a milking parlor or irrigation for growing hay for stock animals) may require a water right permit.

A project proposal is also limited to the use of one exemption for each type of use, so a housing subdivision, for example, cannot use a series of wells to exceed the 5,000 gpd limit or the half-acre of non-commercial lawn and garden. The entire subdivision, collectively, cannot exceed either limitation.

Permit options

If your project cannot access water from an existing water purveyor and doesn't qualify for use of a permit-exempt well, you will need to:

- Apply for **and receive** a new water right, or
- Buy an existing water right and change or transfer it to the new use. This option could be subject to limitations. Having a pre-application consultation will help identify the feasibility of your application.



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. See the *Resources* section for links to forms and other information.

Change or transfer of an existing water right

It can be easier to buy an existing water right and change the purpose and/or place of use. Changing either of these aspects of a water right can be challenging if the change creates a new or different impact on a stream. It is important that the water right be in good standing by regular use over its lifetime.

³ <https://app.leg.wa.gov/RCW/default.aspx?cite=90.44.050>

New water right

Attempting to acquire new water rights within areas with limited water availability will likely be a very difficult and expensive process. It requires the hiring of qualified professionals and submitting a comprehensive mitigation and monitoring plan. This does not guarantee approval of a water right. Mitigation can be any action or group of actions that address, in-time and in-place, the impact of the water withdrawal or diversion on instream flows or other senior water rights.

Mitigation refers to measures taken to prevent any impact on streamflow during the period that water is not available, by either:

- Halting the diversion or withdrawal, or
- Replacing the water taken—in time and in-place.

A common form of mitigation is to buy and retire an existing water right upstream from the new use.

Projects proposing non-consumptive uses of water may be approvable without mitigation.

Processing options

The wait for your water right application to be processed can be years. Options to speed up the process:

- Submit your new or change water right application through the [Cost Reimbursement Program](#).⁴ Due to staffing limits, we may not be able to accept your application into the Cost Reimbursement Program. We strongly recommend first requesting a pre-application consultation.
- Process your change application through the local county water conservancy board.

For more information on these and other options, refer to [Alternatives for Water Right Application Processing](#).⁵

You can discuss all of your options to supply water to your project at your pre-application consultation with Ecology. To schedule, submit the [pre-application consultation form](#).⁶

⁴ <https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights/Cost-reimbursement>

⁵ <https://apps.ecology.wa.gov/publications/summarypages/1111067.html>

⁶ <https://apps.ecology.wa.gov/publications/summarypages/ecy070440.html>

Resources

Contact Information

Ecology Central Region Office
1250 West Alder Street
Union Gap, WA 98903-0009
Phone: 509-575-2490

More Information

Visit our website for the most current information.

ecology.wa.gov/Water-Shorelines/Water-supply

Publications and forms are searchable in the online database.

ecology.wa.gov/publications



Forms

- [Water Right Pre-Application Consultation form](https://apps.ecology.wa.gov/publications/summarypages/ecy070440.html), Form ECY 070-440
<https://apps.ecology.wa.gov/publications/summarypages/ecy070440.html>
- [Application for a New Water Right](https://apps.ecology.wa.gov/publications/summarypages/ecy040114.html), Form ECY 040-114
<https://apps.ecology.wa.gov/publications/summarypages/ecy040114.html>
- [Application to Change or Transfer a Water Right or Claim](https://apps.ecology.wa.gov/publications/summarypages/ecy040197.html), Form ECY 040-197
<https://apps.ecology.wa.gov/publications/summarypages/ecy040197.html>

Publications

- [Cost Reimbursement Program](https://apps.ecology.wa.gov/publications/SummaryPages/2211022.html), Publication 22-11-022
<https://apps.ecology.wa.gov/publications/SummaryPages/2211022.html>
- [Alternatives for Water Right Application Processing](https://apps.ecology.wa.gov/publications/summarypages/1111067.html), Publication 11-11-067
<https://apps.ecology.wa.gov/publications/summarypages/1111067.html>
- Focus on: [The Groundwater Permit Exemption](https://apps.ecology.wa.gov/publications/SummaryPages/1911090.html), Publication 19-11-090
<https://apps.ecology.wa.gov/publications/SummaryPages/1911090.html>

Website – ecology.wa.gov

- Use the [Water Rights Search](https://appswr.ecology.wa.gov/WaterRightsSearch) to locate and research water rights on land parcels anywhere in the state.
<https://appswr.ecology.wa.gov/WaterRightsSearch>
- Learn more about the work being done by our [Office of the Columbia River](https://ecology.wa.gov/OCR).
<https://ecology.wa.gov/OCR>

ADA accommodations

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request an ADA accommodation, contact Ecology by phone at 360-407-6872, or visit <https://ecology.wa.gov/accessibility>. For Relay Service or TTY call 711 or 877-833-6341.

Map

