

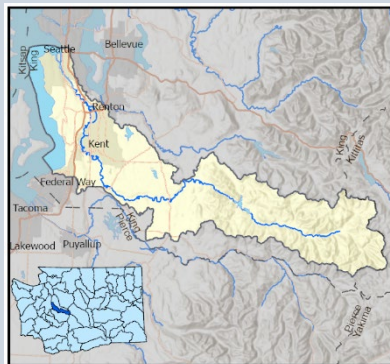
WRIA 9 Duwamish-Green Watershed Water Availability



Duwamish River; Photo by jpellgen, <https://flic.kr/p/aB2HXt>

Overview

- Introduction to WRIA 9
- Water Availability Factors
- Options for Acquiring Water
- Resources
- Map



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 9

The Duwamish-Green Watershed or Water Resource Inventory Area (WRIA) 9 is defined as the area that drains to the Duwamish-Green River. It is located in the southern Puget Sound area, and comprises most of southern King County, including south Seattle and its adjacent suburban areas of Kent, Des Moines, Auburn, and Covington.

The Duwamish-Green Watershed has one major river, with the Green River becoming the Duwamish River as it approaches Puget Sound. Major tributary streams include Big Soos, Jenkins, Covington, Crisp, and Newaukum creeks. Flows in the Green River are largely controlled by Howard Hanson Dam located in the upper watershed.

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 *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
- [RCW 90.94](#): Streamflow Restoration
- [RCW 77.57](#): Fishways, Flow, and Screening
- [WAC 173-509](#): The Instream Flow Rule for WRIA 9

Water Availability Factors

Due to Washington’s varied land uses, hydrology, and precipitation levels, water availability for new water right permits varies significantly across the state. In the Duwamish-Green Watershed, key factors affecting water availability include:

- Instream flow rule
- Existing water rights, including unquantified Tribal rights
- Precipitation
- Seawater intrusion

Instream flow rule

Instream flow rules are an element of water and river management that help maintain healthy ecosystems that support fish, communities, and economies. WRIA 9 has an instream flow rule (WAC 173-509), adopted to preserve the uses and values of individual rivers and streams.

The instream flow rule:

- Protects the Main Stem Green 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 all tributary streams, protecting existing flows from new appropriations.
- Recognizes groundwater withdrawals (wells) typically affect streamflows and restricts new appropriations accordingly.
- Establishes availability of water downstream of tidal influence in the Duwamish-Green River near Tukwila.

RCW 90.94 allows new homes using permit-exempt groundwater to potentially impact instream flows and closures in this watershed. (See the *permit-exempt options* section.)

Existing water rights

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

Precipitation

Average precipitation ranges from 30-35 inches per year in the coastal areas to 70 inches in the mountains. Most of this precipitation arrives during the winter months when water demands are the lowest, and only a fraction becomes available for human and economic uses. During the summer, after the snowpack is gone, there is little rain, so streamflows are dependent on groundwater inflow. This means that groundwater and surface water are least available when water demands are the highest.

Tribal reservation and interest

The Muckleshoot Indian Reservation lands are partially located in WRIA 9. The Tribe holds federally reserved treaty rights to fish, hunt, and gather throughout the watershed. While unquantified, the Tribe also has claim to the most senior water rights in the basin. The Tribe is concerned about maintaining necessary flows and fish habitat in the watershed. Water right applications and mitigation plans are routinely sent to the Tribe for review and comment.

Seawater intrusion

The movement of salt water into freshwater aquifers, known as seawater intrusion, is a concern for coastal areas of Puget Sound. Any groundwater withdrawals located in coastal areas are evaluated for the risk of seawater intrusion into existing fresh groundwater supplies.

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 9 are also yet to be fully realized. Water availability is limited throughout the Duwamish-Green Watershed.



Options for Acquiring Water

Permit-exempt options

State law, RCW 90.44.050, exempts the following uses from the water right permitting process:

- Single or group domestic uses, not exceeding 5,000 gallons per day (gpd), although in some areas, including WRIA 9, there are other restrictions (see [Domestic uses](#), later in this section).
- 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.

There is no exemption from permitting for surface water diversions.



Domestic uses

If your project will rely on a well drilled before January 19, 2018, you are regulated solely under RCW 90.44.050, and the new requirements under RCW 90.94 do not apply. The following describes additional requirements for single and group domestic uses that will rely on a well drilled after January 19, 2018:

If you are building a new home that will rely on a new¹ permit-exempt well:

- Your *combined* indoor and outdoor domestic water use is limited to 950 gpd as a maximum annual average, not to exceed 5,000 gpd on any given day. For example, you could withdraw 3,000 gallons on one summer day, so long as you do not do so enough that your average exceeds 950 gpd in a year.
- Your outdoor personal lawn and garden remain limited to an area no greater than one-half acre. (Note that your outdoor water use for your lawn and garden is included in the 950 gpd annual average limit.)
- If there is a drought emergency declaration for the watershed, your water use may be restricted to 350 gpd for indoor uses only, with the exception of any water needed to maintain a fire control buffer.



If you are building more than one home reliant on a new permit-exempt well: Your group domestic use is also regulated by both RCW 90.44.050 and 90.94.030.

The limit under RCW 90.94.030 is per connection, meaning that for subdivisions, each house is limited to the 950 gpd maximum annual average limit and the 350 gpd indoor use only during a declared drought emergency. However, the entire subdivision is limited to the 5,000 gpd limit established under RCW 90.44.050.

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
- Acquire an existing water right and apply for **and receive** a change or transfer for the new use, new point of withdrawal/diversion, and/or new place of use.



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.

¹ Drilled after January 19, 2018.

New water right

Acquiring new water rights within areas regulated with either instream flows or closures will likely be a difficult and expensive process. It may require hiring a qualified professional to develop 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 the impact of the water withdrawal or diversion on regulated streamflows or other senior water rights.

Projects proposing non-consumptive uses of water may be approvable in both closed areas and areas with instream flow regulations.

Change or transfer an existing water right

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

Processing options

The wait for your water right application to be processed can be years. To speed up the process, consider submitting your new or change water right application through the [Cost Reimbursement Program](#).

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

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](#).

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 retire an existing water right upstream from the new use.

Resources

Contact Information

Ecology Northwest Regional Office
Mail address: PO Box 330316
Shoreline WA 98133-9716
Physical address: 15700 Dayton Ave N
Shoreline, WA
206-594-0000

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

Publications

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

Website – ecology.wa.gov

- Visit the [water rights permits page](#) for more information and helpful links.
<https://ecology.wa.gov/WaterRightPermits>
- Use the [Water Rights Search](#) to locate and research water rights on land parcels anywhere in the state.
<https://ecology.wa.gov/WaterRightsSearch>

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

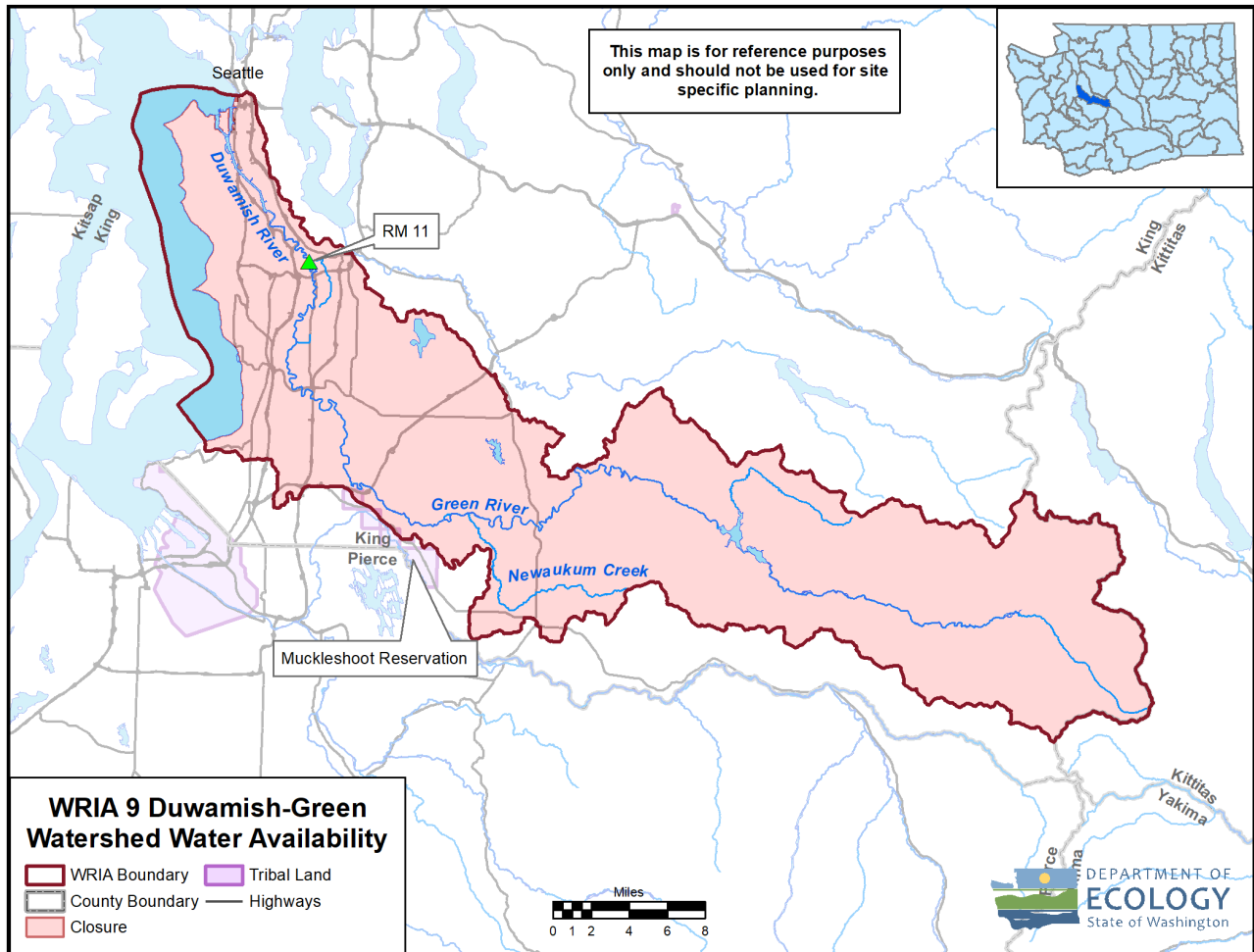


Figure 1 All tributaries to the Green River are closed to further appropriation.

Please note that upstream of River Mile 11 (RM 11) the Green River itself is regulated by instream flows, and interruptible surface water rights may be available. Downstream of RM 11 the Green is not regulated, allowing for possible issuance of year-round water rights.