

# WRIA 41 Lower Crab Watershed Water Availability



East Low Canal, bringing water to the Odessa; Photo by USBR

## Overview

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## Introduction to WRIA 41

The Lower Crab Watershed or Water Resource Inventory Area (WRIA) 41 is defined as the area that drains to the Lower Crab Creek (below Ephrata). It also includes Lynch Coulee and other streams, mostly seasonal, draining directly to the Columbia River. It is located in Eastern Washington, mainly in central Grant County and northwest Adams County. Lower Crab Creek’s major tributaries are Upper Crab Creek and Lind Coulee, via Moses Lake and Potholes Reservoir.

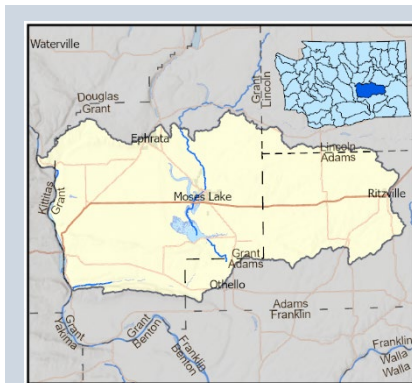
## How can I get water?

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.



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.

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 waters of the state, including issuing the right to use water as well as protecting 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 77.57](#): Fishways, Flow, and Screening

## 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 Lower Crab Watershed, key factors affecting water availability include:

- Climate and geology.
- Source limitations.
- Existing water rights.
- Columbia Basin Project.

### Climate and geology

The annual precipitation in the Lower Crab Watershed ranges from 7 inches per year in the Beverly area, to over 10 inches in the higher elevations. Most of the precipitation arrives during the winter months, when water demands are the lowest. Due to extensive bedrock, only a small fraction of this precipitation becomes groundwater available for human and economic uses.

During the summer, the snowpack is gone, there is little rain, and naturally low streamflows are dependent on groundwater inflow. This means that groundwater and surface water are least available when water demands are the highest.

### Source limitations

This watershed has administrative restrictions known as Surface Water Source Limitations (SWSLs), which limit most water sources in the watershed. This determination comes from the Washington Department of Fish and Wildlife that flows be protected to maintain fish populations.

### Existing water rights

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

Crab Creek and Moses Lake were both adjudicated in 1924. Prior adjudications are an indication that most, if not all, of the available water has already been allocated.

### Columbia Basin Project

The CBP is a federally-authorized project with multiple purposes: irrigation, power production, flood control, municipal water supply, recreation, and fish and wildlife benefits. The CBP canal system provides water for much of the agricultural

irrigation in the region. The water is imported from the Columbia River and is redistributed through canals and stored groundwater. The CBP has three distinct subareas: Odessa and Quincy, established under [WACs 173-128A](#) and [173-130A](#), and the “508-14,” established under [WAC 508-14](#).

- A portion of the Odessa Subarea encompasses the eastern area of WRIA 41. Often referred to as the second half of the CBP, surface water has not yet been imported to most of this subarea. Groundwater levels in the Odessa Subarea are declining rapidly in many places and, as a result, groundwater is not available for new uses.
- A portion of the Quincy Subarea encompasses the western area of WRIA 41. This area features both state water rights and the unique “Quincy Basin” permits for artificially stored groundwater from the CBP. All state water within this area has been legally appropriated. The reserve of 177,000 acre-feet of artificially stored groundwater under Quincy Basin permits has been appropriated or is spoken for under existing applications.
- A portion of the “508-14” Subarea encompasses the southern area of WRIA 41. This area is characterized by both state water rights and a significant quantity of artificially stored groundwater from the CBP. It is estimated that all state water within this area has been appropriated.

### 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 Lake Roosevelt project. You can find more information at the OCR website.

### 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 41 are also yet to be fully realized. However, it is apparent that water availability is limited throughout the Lower Crab Watershed.



## Options for Acquiring Water

### Permit-exempt options

State law, RCW 90.44.050, exempts the following groundwater 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.

The permit exemption may not be available to prospective water users in certain areas that have been closed to further appropriation because there is limited or no water available. Check with Ecology staff at the regional office for more information.

There is no exemption from permitting for surface water diversions.

## 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.



**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.

### *New water right*

Attempting to acquire new water rights within areas regulated with either instream flows or closures 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.

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

### *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.

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.

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## 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](#).
- Process your change application through the Adams, Grant, or Lincoln County Water Conservancy Board.

For more information on these 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](#).

## Resources

### Contact Information

Ecology Eastern Region Office  
4601 North Monroe Street  
Spokane, WA 99205-1295  
Phone: 509-329-3400

### More Information

Visit our website for the most current information.  
[ecology.wa.gov/Water-Shorelines/Water-supply](https://ecology.wa.gov/Water-Shorelines/Water-supply)

Publications and forms are searchable in the  
online database.

[ecology.wa.gov/publications](https://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](https://ecology.wa.gov)

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

