

Lower Crab Watershed, WRIA 41

This focus sheet provides information on the availability of water for new uses in the Lower Crab Watershed. This information provides a starting point for potential water users to secure water for a future project or proposal in this area.

The Lower Crab Watershed located in eastern Washington includes the portion of the Crab Creek between Ephrata and its confluence with the Columbia River. In addition, there are numerous tributary creeks and streams of which most are seasonal.

Annual precipitation ranges from 7 inches per year in the Beverly area, to over 10 inches in the higher elevations. Only a fraction of this precipitation becomes groundwater available for human and economic uses. Most of the precipitation arrives during the winter months, when water demands are the lowest. During the summer, the 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.

Much of the water in the Lower Crab Watershed has already been legally spoken for. Increasing demands from population growth, declining groundwater levels, and impacts from climate change are adding to the challenge of finding new water supplies in WRIA 41, especially during the summer months.

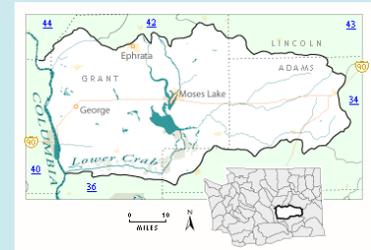
Factors affecting water availability

Adjudications

An adjudication of Crab Creek and Moses Lake was completed in 1924. In general, most of the water in adjudicated basins has been appropriated and new appropriations are not available.

Groundwater

Typically, outside of the boundaries of the Columbia Basin Project (CBP), the availability of groundwater from bedrock is very limited. Further limitations include climate, geology, and impairment to existing rights. In addition, many areas are in decline, meaning little if any water is available for new consumptive appropriations.



Definitions/Acronyms

Adjudication: A legal process conducted through a superior court to determine the extent and validity of existing water rights.

ASGW: Artificially stored groundwater

CBP: Columbia Basin Project

Mitigation: A scientifically-sound plan to offset the impacts of a proposed water use.

QBGWMS: Quincy Basin Ground Water Management Subarea

Surface water source limitation (SWSL): A recommendation from the Department of Fish and Wildlife that flows be protected to maintain fish populations. See RCW 77.57.020.

WRIA: Water Resources Inventory Area; also known as a watershed or river basin. For environmental administration and planning purposes, Washington is divided up into 62 major watersheds, or WRIsAs.

The reserve of water set aside for permit-exempt wells within the Quincy Basin Ground Water Management Subarea (QBGWMS) may be depleted and as such, future permit-exempt wells may become restricted.

Surface water

The Lower Crab watershed has administrative restrictions known as Surface Water Source Limitations (SWSLs), which limit most water sources in the watershed. Groundwater connected to the surface sources is also subject to SWSL restrictions. These restrictions indicate that most water has been appropriated within the watershed.

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: Quincy, Odessa, and the “508-14.”

A portion of the Odessa Subarea, established under [WACs 173-128A](#) and [173-130A](#), encompasses the eastern area of WRIA 41. The majority of this subarea has not been developed with imported water and is often referred to as the second half of the CBP. Groundwater levels in the Odessa Subarea aquifer are declining rapidly in many places and as a result, groundwater is not available for new uses.

A portion of the QBGWMS, established under [WACs 173-124](#) and [173-134A](#), encompasses the western area of WRIA 41. This area is characterized by both state water rights and the unique “Quincy Basin” (QB) permits for artificially stored groundwater (ASGW) from the CBP. All state water within this area has been legally appropriated. The reserve of 177,000 acre-feet of ASGW under QB permits has been appropriated or is spoken for under existing applications.

A portion of the “508-14” Subarea, established under [WAC 508-14](#), encompasses the southern area of WRIA 41. This area is characterized by both state water rights and a significant quantity of ASGW from the CBP project. It is estimated that all state water within this area has been appropriated.

Water supply available for new uses

The Lower Crab watershed is not closed to new water uses, outside of the QBGWMS. However, water levels are declining and/or water is not legally available, so in most areas it is unlikely any water is available for new consumptive appropriations. Therefore, it is doubtful that any new consumptive water rights will be issued unless the impacts are fully mitigated.

Office of Columbia River (OCR) has submitted a filing to amend the rule for the 508-14 subarea. The intent of the filing, in part, is to allocate the ASGW within the subarea. The majority of this water will be allocated to existing applications, but some water may become available for appropriation.

Although nearly all of the water under the QB-ASGW program is currently spoken for, an application can be filed to wait in line until water becomes available. Water for new uses may become available as water is returned to the program due to reductions or cancellations of existing permitted projects.

The Lake Roosevelt Incremental Storage Release is an impoundment/reservoir of the Columbia River watershed. OCR is currently pursuing development of water supplies on Lake Roosevelt to benefit instream and out-of-stream uses through storage, conservation, and regional water management agreements. Water for new appropriations under this project is limited to municipal and industrial supply from the Columbia River mainstem.

OCR is aggressively pursuing water supply development opportunities throughout the Columbia Basin. You can find additional information at the OCR Web site at:
www.ecy.wa.gov/programs/wr/cwp/crwmp.html.

The groundwater permit exemption allows certain users of small quantities of groundwater (most commonly, single residence well owners) to construct wells and develop their water supplies without obtaining a water right permit from Ecology. For more information about the groundwater permit exemption, refer to www.ecy.wa.gov/pubs/fwr92104.pdf.

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.

Additional options for obtaining a new water supply include:

- Connecting to an established water supplier. This is the fastest and simplest option.
- Processing your change application with the Grant County Water Conservancy Board.
- Processing your application through the Cost Reimbursement Program. Refer to:
www.ecy.wa.gov/pubs/0511016.pdf.

For more information on these 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. Due to a backlog of pending applications, prospective applicants are advised to consider the Cost Reimbursement Program, which can help expedite application processing (See: www.ecy.wa.gov/pubs/0511016.pdf). Be aware though, using the Cost Reimbursement Program will not help you get an approved water right permit where water is not available.

For information on the total number of water right claims, certificates, permits and applications in this watershed, refer to the map: <http://www.ecy.wa.gov/programs/wr/rights/Images/pdf/waterright-wria-maps.pdf>.

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. Links to application forms are provided below:

- Pre-Application Form
<https://fortress.wa.gov/ecy/publications/publications/ecy070440.pdf>
- Apply for a New Water Right
<http://www.ecy.wa.gov/programs/wr/rights/newrights.html>
- Apply to Change or Transfer an existing 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 we consider when evaluating water right permit applications. Here are some additional 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
- Search and view well reports using a variety of search tools
<http://apps.ecy.wa.gov/welllog/>

For more information

Eastern Regional Office
Water Resources Program
4601 N. Monroe St.
Spokane, WA 99205-1295
509-329-3400

If you need this document in a version for the visually impaired, call the Water Resources Program at 360-407-6872. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

