

## Water Resources in the Lower Crab Watershed (WRIA 41)

There are limited opportunities for new water uses in WRIA 41. In order to evaluate options for new uses, it is helpful to understand the overall water picture for the watershed.

The Lower Crab Watershed, in eastern Washington, encompasses a large area east of the Columbia River and stretches across parts of Grant, Adams and Lincoln counties. Moses Lake is located roughly in the center of the watershed. Other significant water bodies include Rocky Ford Creek, the Potholes Reservoir, and Lower Crab Creek.

WRIA 41 faces some serious water issues. Water supply demands are increasing for agriculture, industrial uses and a growing population. At the same time, natural surface water flows and ground water levels are declining in most areas.

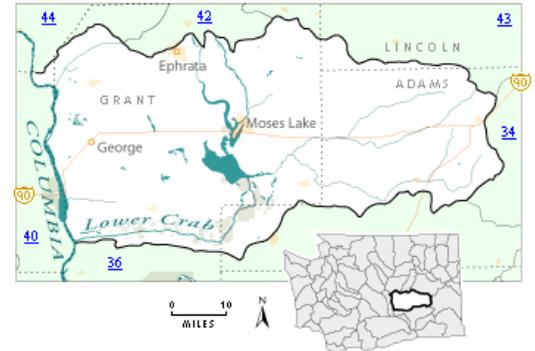
Water management is particularly complicated due to the variety of regulatory agencies and jurisdictions involved. There are three unique ground water management subareas covering most of the watershed. Operating within those subareas are the massive federal Columbia Basin Project and three irrigation districts.

### Water availability

Opportunities for “new” water in the area are extremely limited. State water rights are no longer being issued for surface water in this watershed. A combination of existing water rights, adjudicated water rights and federal claims has resulted in all surface water being legally “spoken for.”

Similarly, ground water rights are no longer being issued in most of the watershed. Use of ground water under the permit-exemption (RCW 90.44.050) is still available in appropriate cases, but there is growing concern over the cumulative impacts of the large number of permit-exempt wells in the area.

Many people are looking to water right transfers to meet new water needs. Refer to the “Water Rights in Washington State” section at the end.



### Definitions

**ASGW:** Artificially Stored Ground Water is water that has accumulated underground over the years from the federal government’s Columbia Basin Project.

### Columbia Basin Project

**(CBP):** The irrigation network in central Washington made possible by the Grand Coulee Dam. Managed by the U.S. Bureau of Reclamation.

**TMDL:** Total Maximum Daily Load. A water quality improvement plan that establishes limits for the amount of pollutants that are allowed in a water body without violating state water quality standards.

**Watershed Planning:** Under RCW 90.82, a framework for developing local solutions to water-related issues on a watershed basis.

**WRIA:** Water Resources Inventory Area; also known as a watershed or river basin. For environmental management purposes, Washington is divided into 62 WRIsAs.

### Acronyms

**BOR:** U.S. Bureau of Reclamation

**QB:** Quincy Basin

**Water management: ground water subareas and CBP**

The WRIA's ground water is managed under three distinct subareas: Quincy Basin, Odessa and the "508-14." Each has its own regulatory framework, and unique water and land management practices. The Columbia Basin Project (CBP) operates within all three areas.

**Quincy Basin Ground Water Management Subarea:** This Subarea is primarily located in the northwest part of the Lower Crab Watershed, and encompasses portions of WRIAs 41, 42 and 43 in Grant and Adams counties. The area is characterized by both older state water rights and the unique "Quincy Basin" (QB) permits for artificially-stored ground water (ASGW). A limited amount (177,000 acre-feet) of ASGW is available under QB permits, which are administered jointly by Ecology and the U.S. Bureau of Reclamation (BOR).

Within this Subarea, water management is further guided by the unique conditions of three areas: the Grey, Buffer Zone and Potholes Bank Storage Areas. The western half of the watershed is served by the Quincy-Columbia Basin and East Columbia Basin Irrigation Districts.

**Odessa Ground Water Management Subarea:** Located in the far eastern portion of WRIA 41, ground water levels in the Odessa aquifer are declining in many places. Therefore ground water is not available for new uses. The BOR is currently conducting a study of the Odessa Subarea, to explore options for using CBP surface water to replace ground water currently being pumped from the aquifer. The study is not evaluating options for delivering additional water to the Subarea.

In 2006, the Odessa Subarea Conservation Relinquishment Exception was passed under Engrossed Substitute Senate Bill 6151 in an effort to conserve water in the Subarea and to encourage more efficient use of water. This statutory amendment specifies that Odessa aquifer ground water users are not subject to the relinquishment law if they do not use the full quantity of water authorized in their water right. (Relinquishment is the loss of all or part of a water right after five or more years of non-use.)

**"508-14" CBP-Ground Water Management Subarea:** Located in the southwest part of the watershed, the "508-14" Subarea covers part of WRIA 36 in Franklin County. Ecology adopted a water management rule (WAC 508-14) for this Subarea. Ecology may issue permits for withdrawal of ground water, subject to conditions. However, no certificates may be issued until Ecology and the Legislature determine the availability of public waters. The "508-14" Subarea is served by the South Columbia Basin Irrigation District.

**Columbia Basin Project (CBP):** 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 most of the agricultural irrigation in the region. Surface water contracts may be available for canal water from the irrigation districts (for agricultural irrigation) and the BOR (for non-agricultural irrigation, municipal or industrial uses). Beneath the surface of the CBP, naturally occurring and ASGW are commingled.

## Water quality

There are several waterbodies within the WRIA named on the federal Clean Water Act 303(d) list of impaired or threatened waters. These waterbodies are listed for a variety of reasons, mostly related to temperature, nutrients, and pesticides.

Surface water in WRIA 41 is heavily influenced by the CBP. Ecology has a Memorandum of Understanding with the BOR, Irrigation Districts and federal Environmental Protection Agency to share information on water quality within the Project.

Ecology is currently working on a Columbia Basin Pesticides TMDL, which includes Potholes Reservoir. Projects underway as part of the Columbia River Initiative include the delivery of additional Columbia River water to the South Columbia Irrigation District through Crab Creek and through Frenchman Hills Wasteway. These and other projects are being studied for their potential water quality impacts and/or benefits.

## Watershed planning

Planning under RCW 90.82 has not yet started in WRIA 41.

## Shoreline Master Program

The City of Moses Lake is completing an update of its shoreline master program in 2009. Under the state's Shoreline Management Act (SMA) of 1971, counties and cities are required to develop plans and administrative ordinances to regulate development and protect shorelines of lakes, wetlands and streams. This includes protection of fish and wildlife habitat, public access and navigation. Protecting water quality and the "natural character" of shorelines and shorelands are also objectives of the SMA.

## Water Rights in Washington State

Under state law, the waters of Washington collectively belong to the public and cannot be owned by any one individual or group. Instead, Ecology may grant individuals or groups the right to use them. Approval is given in the form of a water right permit.

You need a water right to use any surface water (water located above ground, such as lakes, rivers, streams and springs), *or* to use ground water (water located under ground) at a rate of more than 5,000 gallons a day or to irrigate more than ½ acre of lawn or non-commercial garden (see RCW 90.44.050).

Much of the water in Washington State has already been appropriated, which means it is spoken for and being used. This is making it more difficult to find water supplies for new growth and development, while still leaving enough water in our lakes and rivers for fish and other protected instream resources and values (such as wildlife, navigation, aesthetics and water quality).

Ecology is working closely with Washington communities to help them effectively manage their water, so we can meet current needs and help ensure future water availability for people, fish and the natural environment.

**Water right transfers**

More and more people are looking to change or transfer existing water rights to meet their water needs. Generally Ecology will consider changes to the following elements of a water right:

- Place of use.
- Point(s) of diversion or withdrawal.
- Purpose of use (including season of use).

Franklin and Grant counties have established Water Conservancy Boards as additional avenues for processing water right transfer applications.

**For more information**

## Shoreline management

- Michael Maher, Shorelands & Environmental Assistance Program at 509-329-3584; mmah461@ecy.wa.gov
- Ecology website: <http://www.ecy.wa.gov/programs/sea/SMA/index.html>
- Contact your local government for SMA regulations in your area

## Watershed planning

- Ecology website: <http://www.ecy.wa.gov/watershed/index.html>

## Water quality

- Ecology website: <http://www.ecy.wa.gov/programs/wq/tmdl/index.html>

## Water rights

- General questions: Water Resources Program at 509-329-3400
- Technical questions: Kevin Brown, Permit Writer at 509-329-3422; pabr461@ecy.wa.gov or Lynn Maser, Watermaster at 509-662-0514; lmas461@ecy.wa.gov (Wenatchee office)
- Quincy Basin Subarea questions: Katherine Ryf at 509-329-3586; kyer461@ecy.wa.gov
- Ecology website: <http://www.ecy.wa.gov/programs/wr/rights/water-right-home.html>

**Other contacts**

U.S. Bureau of Reclamation  
32 C St NW, Ephrata, WA 98823  
509-754-0200  
<http://www.usbr.gov/pn/>

Department of Fish & Wildlife  
Eastern Washington  
509-892-1001  
<http://wdfw.wa.gov/reg/region1.htm>

Quincy-Columbia Basin Irrigation District  
1720 S Central Ave, Quincy, WA 98848  
509-787-3591

Franklin County Water Conservancy Board  
John Griffin at 509-585-4534  
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East Columbia Basin Irrigation District  
55 N 8<sup>th</sup> Street, Othello, WA 99344  
509-488-9671

Grant County Water Conservancy Board  
Robert Rolfness at 509-750-7589  
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South Columbia Basin Irrigation District  
1135 E Hills Burrow, Ste. A, Pasco, WA 99301  
509-547-1735

Adams County Water Conservancy Board  
Joyce McNeil at 509-659-1553  
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