

Hangman Watershed, WRIA 56

This focus sheet provides information on the availability of water for new uses in the Hangman Watershed. This information provides a starting point for potential water users in determining the best strategies for securing water for a future project or proposal in this area.

The Hangman Watershed located in eastern Washington includes Hangman Creek and its numerous small tributary creeks and streams. Hangman Creek and some of its tributaries originate in Idaho.

The annual precipitation in the Hangman Watershed ranges from 17 inches per year around the City of Spokane to 25 inches in the higher elevations in the eastern portion of the watershed. Only a fraction of this precipitation becomes 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 Hangman Watershed has already been spoken for. Increased demands from population growth, declining groundwater levels, and impacts from climate change are adding to the challenge of finding new water supplies in Water Resources inventory Area (WRIA) 56, especially during the summer months.

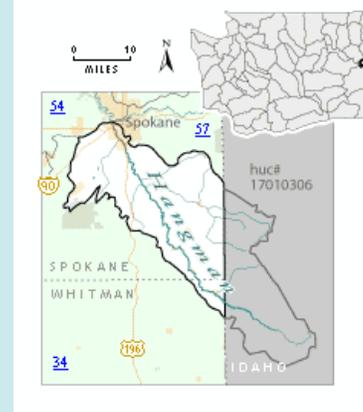
Adjudications

The Crystal Springs adjudication has been completed within WRIA 56. In general, most of the water in an adjudicated basin has been appropriated and new appropriations are not available.

Groundwater

In general, availability and yield of groundwater from bedrock in this WRIA is very limited by climate and geology. In addition, many areas are in decline, meaning little if any water is available for new consumptive appropriations.

MORE INFORMATION



Definitions

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

Aquifer: A rock formation that is capable of storing and transmitting groundwater.

Instream flows: Flow levels adopted into an administrative rule that create a water right for the stream to protect fish, wildlife, stock watering, recreational uses, and other instream uses and values.

Mitigation plan: A scientifically-sound plan intended to avoid impairment to existing water rights or capturing water from a closed source.

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

The West Plains is a plateau southwest of the Spokane River, within the northwestern portion WRIA 56. The Columbia River Basalt Group aquifers underlying the West Plains supply water to the communities of Airway Heights, Medical Lake, Four Lakes, and Fairchild Air Force Base. Groundwater levels have significantly declined in some areas, indicating the groundwater resource is strained. Water in the West Plains is generally considered over-appropriated, that is, no water is available for new consumptive uses.

The Spokane Valley Rathdrum Prairie (SVRP) Aquifer and the Spokane River are intimately linked. Water withdrawals from the aquifer directly affect flows in the river. The US Geological Survey and the states of Washington and Idaho completed a bi-state study of the SVRP aquifer in 2007. Currently, state and local governments are discussing how to interact in the future to manage the aquifer for both states. This includes adjudication, water availability for new water rights, and conservation. Water availability is generally considered limited in the SVRP, due to impacts on the Spokane River.

Surface water

The Hangman watershed has administrative restrictions known as Surface Water Source Limitations (SWSL), which limit most water sources in the watershed. Groundwater connected to the surface sources is also subject to SWSL restrictions. Often these restrictions will require that new water uses stop during low flow periods. This indicates that most water has been appropriated within the watershed. In addition, Marshall Creek is “closed” by SWSL, meaning the water body is closed to new uses.

The WRIA 56 Watershed Planning Unit has agreed conceptually to a minimum instream flow, but wants to develop recommendations for managing groundwater (specifically domestic permit-exempt wells) before requesting Ecology to begin rulemaking. Significant growth is anticipated in Lower Hangman, within Spokane County, and increased use of domestic permit-exempt wells for single and group residential use is anticipated.

Water supply available for further appropriation

The Hangman watershed is not closed to new water uses. However, the majority of water has been appropriated and new uses are subject to the above listed restrictions.

The Office of Columbia River (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 ground water (most commonly, single residential well owners) to construct wells and develop their water supplies without obtaining a water right permit from Ecology. However, water rights developed through the permit exemption are not exempt from the water right seniority system and could be regulated during future drought periods. 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 finding a water supply include:

- Connecting to an established water supplier. This is the fastest and simplest option.
- Processing a change application with the Spokane County Water Conservancy Board.
- Processing an application through the Cost Reimbursement Program.
www.ecy.wa.gov/pubs/0511016.pdf. The applicant will likely need to develop a mitigation strategy to offset any impacts their water use will have on surface waters.

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.

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.

- Apply for a New Water Right
<http://www.ecy.wa.gov/programs/wr/rights/newrights.html>
- Apply to Change or Transfer a 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 will be considered when evaluating water right permit applications. Here are some 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
- WRIA map showing the total number of water right claims, certificates, permits and applications
http://www.ecy.wa.gov/programs/wr/rights/Images/pdf/waterright_wria_opt.pdf
- Search and view well reports using a variety of search tools
<http://apps.ecy.wa.gov/welllog/>

For more information

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