

Water Resources in the Lower Spokane River Watershed (WRIA 54)

There are limited opportunities for new water uses in WRIA 54. In order to evaluate options for new uses, it is helpful to understand the overall water picture for the watershed.

The Lower Spokane River watershed, often referred to as Water Resources Inventory Area (WRIA) 54, includes about 883 square miles in Spokane, Stevens and Lincoln counties. Three cities -- Spokane, Airway Heights, and Medical Lake -- and the town of Springdale occupy land in the watershed, as do the Spokane Indian Reservation and Fairchild Air Force Base.

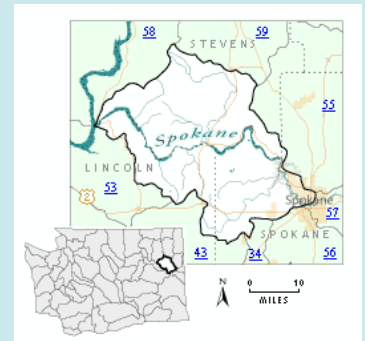
The Lower Spokane watershed is part of the greater Spokane-Coeur d'Alene watershed which encompasses about 6,600 square miles in parts of northeastern Washington and Idaho. For management purposes, the Washington portion of the Spokane River watershed is divided into the Lower, Middle and Little Spokane River, and Hangman Creek watersheds.

The Spokane River flows west through WRIA 54, going through three dams -- Nine Mile, Long Lake and Little Falls -- before reaching Lake Roosevelt near Fort Spokane. Tributary streams (Deep, Coulee, Spring, Mill, Pitney and Harker Creeks) drain from the high plateau to the south of the river. Chamokane, Little Chamokane, Blue, Orzada and Sand Creeks flow from the highlands north of the river.

There are small, localized aquifers in the tributary valleys and upland areas. The Spokane Valley/Rathdrum Prairie aquifer -- a vast, regional groundwater system (see page 2) -- occupies a small portion of the southeastern part of the watershed.

Water availability

The Spokane River mainstem is not formally closed to new water uses. However, flows on the river are declining, so it is likely all available water is legally "spoken for" and therefore any new water rights would be seasonal (interruptible), or the impacts of the water use would need to be fully offset (mitigated).



WRIA 54

Definitions

Adjudication: A county superior court process used to determine the extent (amount), validity, and priority of water rights and claims in an area. It results in a thorough accounting of water rights essential to the protection and management of water. An adjudication does not create new water rights, it only confirms existing rights.

SWSL: Surface Water Source Limitation. Administrative restrictions on water availability established by Ecology after recommendation and consultation with the Dept. of Fish and Wildlife (RCWs 90.22, 90.03 & 90.05). The intent of a SWSL is to protect fish and wildlife habitat.

TMDL: Total Maximum Daily Load. A water quality improvement plan. A TMDL is a common sense, science-based approach to cleaning up polluted water so that it meets water quality standards.

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

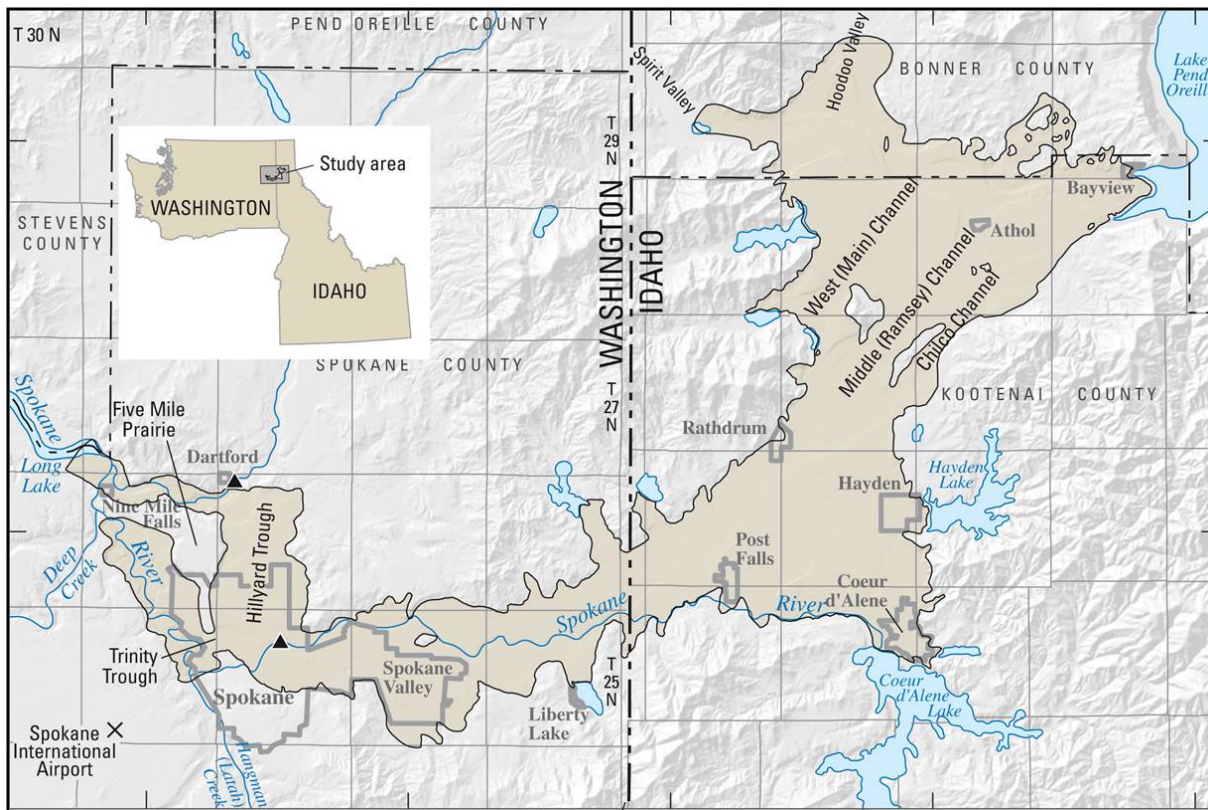
WRIA: Water Resources Inventory Area; also known as a watershed or river basin. For environmental management purposes, Washington is divided into 62 WRIsAs.

The Spokane River mainstem and many streams in WRIA 54 are subject to administrative restrictions known as Surface Water Source Limitations (SWSLs). Often these SWSLs will require that new water uses stop during low flow periods. Some groundwater connected to surface water sources may also be subject to SWSL restrictions.

Spokane Valley-Rathdrum Prairie (SVRP) aquifer

The SVRP aquifer is the primary source of water for more than 500,000 residents in Washington and Idaho. The SVRP aquifer and the Spokane River are intimately linked. Water withdrawals from the aquifer directly affect flows in the river. The U.S. Geological Survey (USGS) and the states of Washington and Idaho completed a bi-state study of the SVRP aquifer in 2007. The study investigated how much water is in the aquifer, where it is located, and how the aquifer interacts with the Spokane River.

Currently, state and local governments are working to manage the aquifer for both states. This includes strategies for water conservation.



SVRP Aquifer area in Washington and Idaho (credit: USGS 2007)

West Plains

The West Plains is a high plateau southwest of the Spokane River. 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 declined in some areas, indicating the groundwater resource is strained. All four communities have responded by developing strong water conservation ordinances. Outside of these communities, rural development depends on permit-exempt wells for their water supply.

Hydroelectric dams

Seven hydroelectric dams, six of which are managed by Avista Utilities, are located on the mainstem Spokane River. Of these, Post Falls Dam located downstream from the outlet of Lake Coeur d'Alene in Idaho has the greatest control over summer flows in the river. One hydroelectric dam, Upriver Dam, is owned and operated by the City of Spokane and is near Felts Field in Spokane.

Spokane River Basin adjudication

An important step in deciding whether water is available for new uses is to evaluate its legal availability. Ecology is currently researching and mapping water records in the Spokane River Basin, including WRIA 54, in preparation for an adjudication. An adjudication is essential for effective water management. It also supports Washington's interest in using interstate water as Idaho proceeds with a large-scale general adjudication of the Spokane River and tributaries in northern Idaho.

Water quality

The Spokane River suffers from several types of pollutants. Ecology has completed a water quality improvement plan, or "total maximum daily load" (TMDL), to address dissolved metals. Ecology is currently developing a TMDL to address dissolved oxygen through nutrient reduction.

In a separate effort, the 2007 state Legislature dedicated funding in the "Urban Waters Initiative" to look for the sources of polychlorinated biphenyls (PCBs) and other toxins to the Spokane River.

Watershed planning

Planning under the Watershed Planning Act (RCW 90.82) for WRIA 54 began in 2003, with Spokane County serving as the lead agency for the planning unit. The draft watershed plan is being considered for approval by the planning unit in the summer of 2009, and will then be presented for adoption to the Lincoln, Spokane and Stevens county commissioners.

The plan's recommendations focus on instream flow needs, water conservation, reclamation and reuse, permit-exempt wells, water rights and claims, and strategies for groundwater recharge. After the plan is adopted its implementation can begin, which is typically supported in part by grants from Ecology.

Shoreline master programs

The cities of Spokane and Medical Lake, along with Spokane County, are working on updates to their shoreline master programs. Stevens County adopted its shoreline master program in 1999, and is required to update it by 2014. Under the state's Shoreline Management Act (SMA) of 1971 (RCW 90.58), counties and cities are required to develop plans and administrative ordinances to regulate development and protect shorelines of lakes, wetlands and streams including 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.

Everyone needs a water right to use any surface water (water located above ground, such as lakes, rivers, streams and springs), or to use groundwater (water located under the ground) at a quantity of more than 5,000 gallons a day or to irrigate more than ½ acre of lawn and 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 instream resources and values such as wildlife, navigation, aesthetics and water quality.

Ecology is working closely with 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 changes and 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).

Lincoln, Spokane and Stevens counties have established Water Conservancy Boards as an additional avenue to speed up the processing of water right change applications. The boards are required to follow the same laws and rules as Ecology when evaluating change applications to valid water rights. Changes may not result in an enlargement of the historic water right or impact other water rights, including established instream flows.

For more informationSpokane River

- The Spokane River Forum serves as a clearinghouse and information exchange for all things Spokane River. Visit the website at: <http://www.spokaneriver.net>
- Ecology website: http://www.ecy.wa.gov/geographic/spokane/spokane_river_basin.htm

Shoreline Management

- Michael Maher, Shorelands & Environmental Assistance Program at 509-329-3584; michael.maher@ecy.wa.gov
- Ecology website: <http://www.ecy.wa.gov/programs/sea/SMA/index.html>

Watershed Planning

- Sara Hunt, Shorelands & Environmental Assistance Program at 509-329-3561; sara.hunt@ecy.wa.gov
- Ecology website: <http://www.ecy.wa.gov/watershed/index.html>

Water Quality

- Dave Moore, Water Quality Program at 509-329-3481; david.moore@ecy.wa.gov
- Ecology website: <http://www.ecy.wa.gov/programs/wq/tmdl/index.html>

Water Rights

- General questions: Water Resources Program at 509-329-3400
- Adjudication questions: Ben Bonkowski, Water Resources Program at 360-407-6603; ben.bonkowski@ecy.wa.gov
- Ecology website: <http://www.ecy.wa.gov/programs/wr/rights/water-right-home.html>

Other contacts:

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Spokane Tribe of Indians
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Lincoln County Water Conservancy Board
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Spokane County Conservation District
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