

Water Resource Planning in Spokane County

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Spokane County Public Works

Water Law in Eastern Washington
May 15, 2024

Water Resource Planning in Spokane County

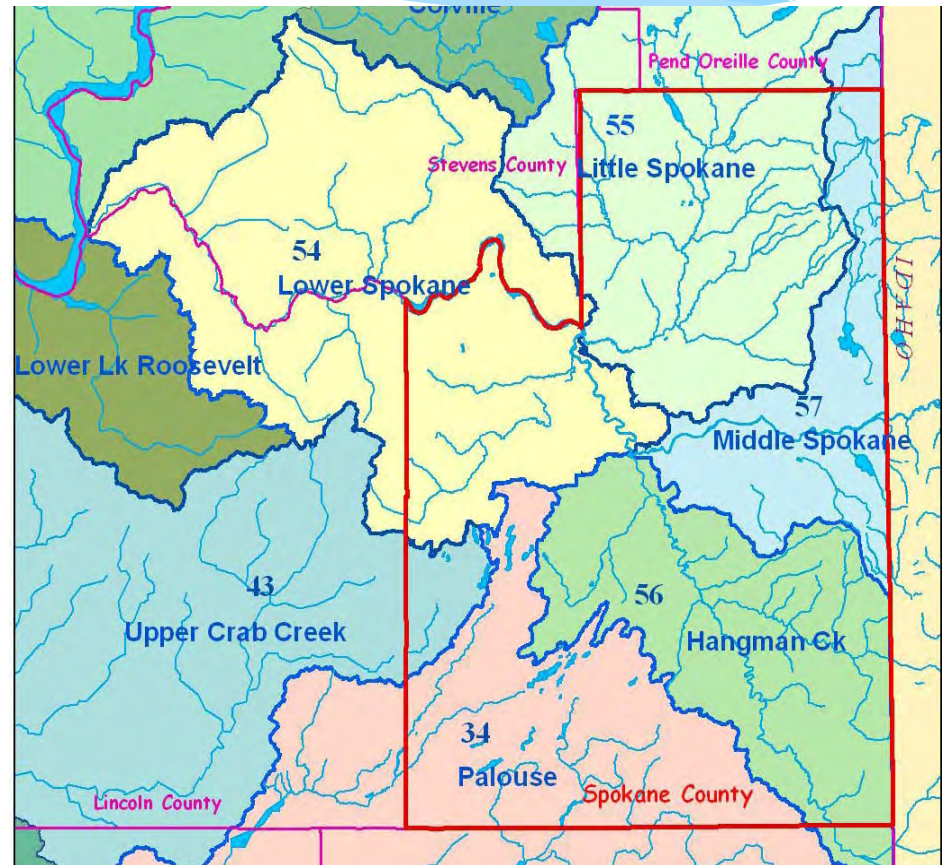


- * Organized by Water Resource Inventory Area (WRIA)
 - * Watershed Planning Act 1997 (RCW 90.82)
 - * Addressing needs for rural development / agricultural production
 - * Planning for municipal development in an interstate aquifer system
 - * Water quality concerns
- * Planning for development in two closed water basins

Watersheds in Spokane County

Water Resource Inventory Areas (WRIAs):

- * 34 - Palouse
- * 43 - Upper Crab
- * 56 - Hangman
- * 54 - Lower Spokane
- * 55 - Little Spokane
- * 57 - Middle Spokane



Acknowledgements

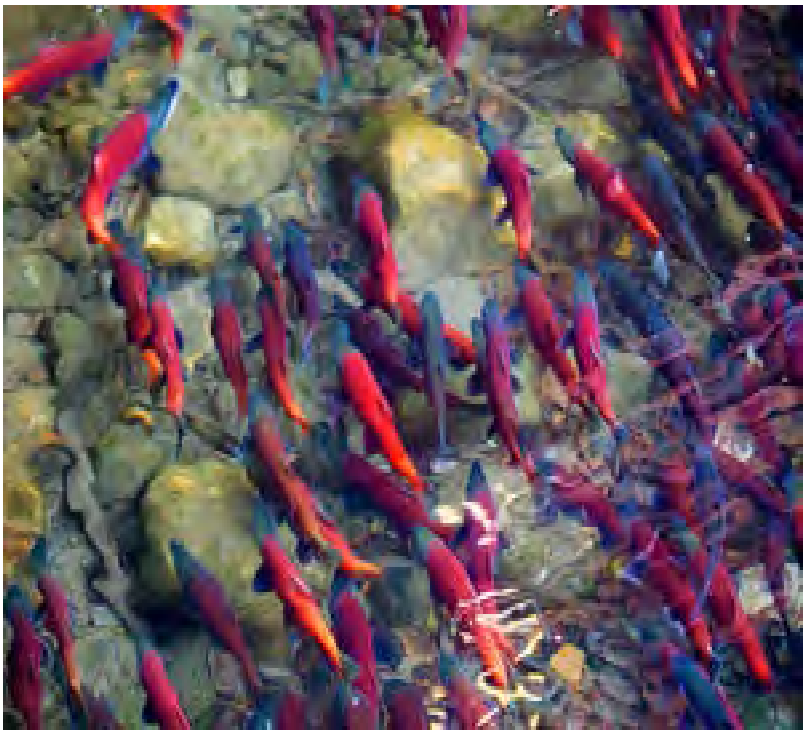
- * Team Water – Spokane County Public Works
- * Spokane Conservation District
- * Tribes
- * Agency Partners
- * Water Districts
- * Advocacy Groups / NGOs
- * Citizens

WRIA 56 Hangman Creek Watershed Plan 5/2005

- * Agricultural
- * Few Municipalities
- * Riparian impacts, non-point sources of sediment
- * Largest source of P to the Spokane River.
- * Other WQ challenges include dissolved oxygen, fecal coliform, pH, temperature
- * TMDL resonance with Spokane River



WRIA 56 Update



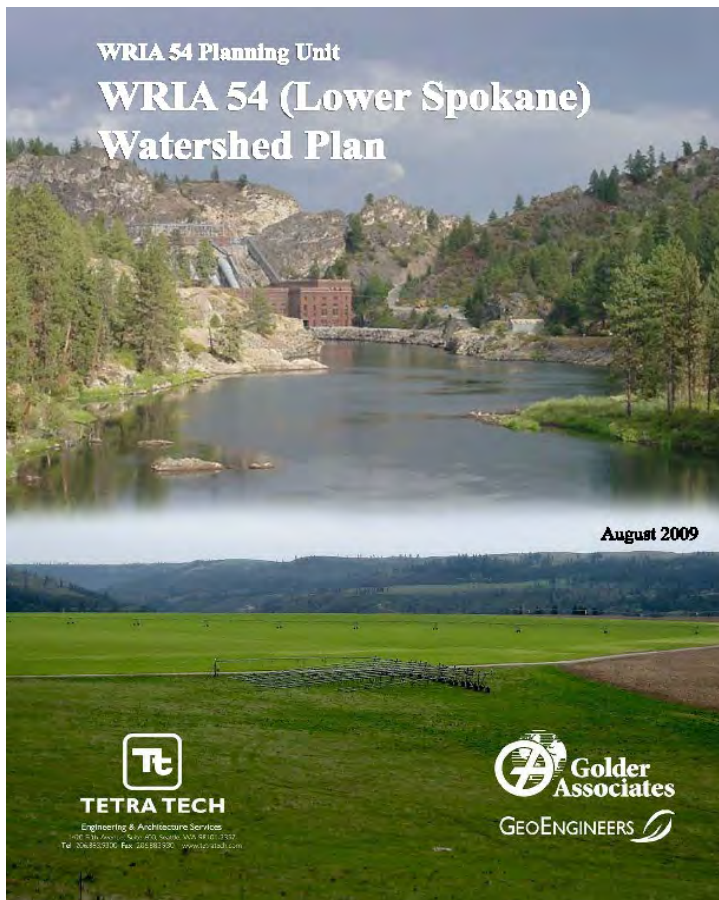
- * Spokane Conservation District programs:
 - * Shoreline Restoration
 - * Family Forest Fish Passage
 - * Water Conservation
 - * Commodity Buffers
- * Voluntary Stewardship Program via Washington Conservation Commission

The Hangman Settlement Agreement Spokane Riverkeeper v EPA

- * Complaint Filed in 2015 in response to EPA's Clean Up Plan for Hangman Creek
- * 2018 Agreement with Ecology - to implement a Clean Up plan through 2028
- * Two Year Reports; most recent published 8/2023

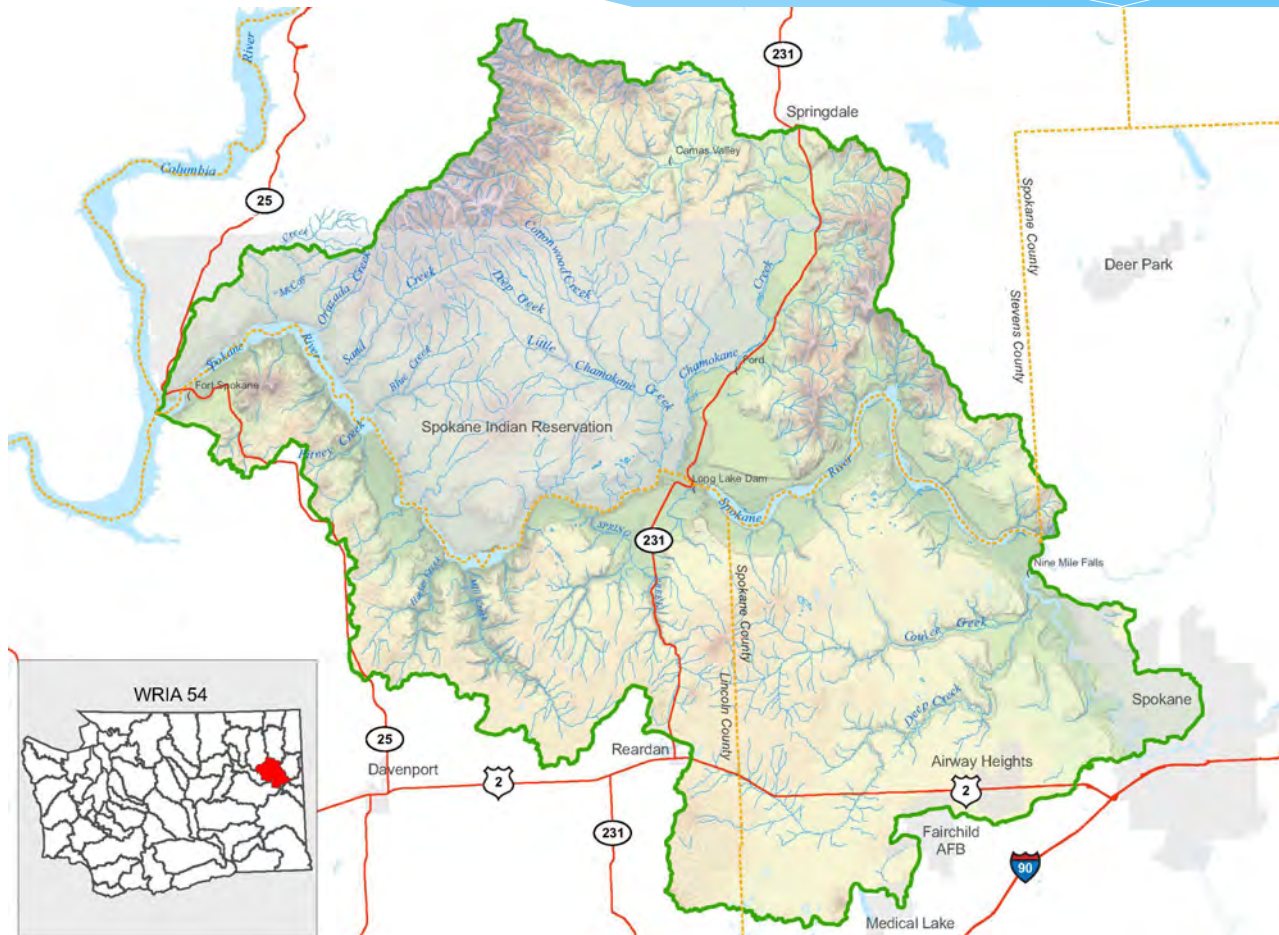


WRIA 54 – Lower Spokane



- * Complex watershed including tribal, municipal, industrial, DOD, and rural uses
- * Instream Flow studies for the Spokane River

WRIA 54 Setting



WRIA 54 Lower Spokane Watershed Plan 8/2009

Recommendations:

- * Water Rights Administration
- * Promoting Water Efficiency
- * Water for Future Needs
- * Water Storage Opportunities
- * Integrating Land Use and Water Supply
- * Instream Flow Studies

Ongoing:

- * Stormwater/drainage challenges
- * Municipal and rural water supplies are impacted by PFAS-related compounds



WRIA 55/57 Spokane River Watershed Plan 6/2005



- * Combined WRIA 55 and 57 due to Hydraulic Connection and Interaction
- * Includes Municipal and Rural Water Supply Issues
- * Process re-opened in 2018 in response to Hirst. WRIA 55 - Little Spokane Addendum was approved 11/2020

WRIA 57 Middle Spokane Key Elements

- * Promoting Water Efficiency
- * Water for Future Needs
- * Water Storage Opportunities
- * Instream Flow Studies

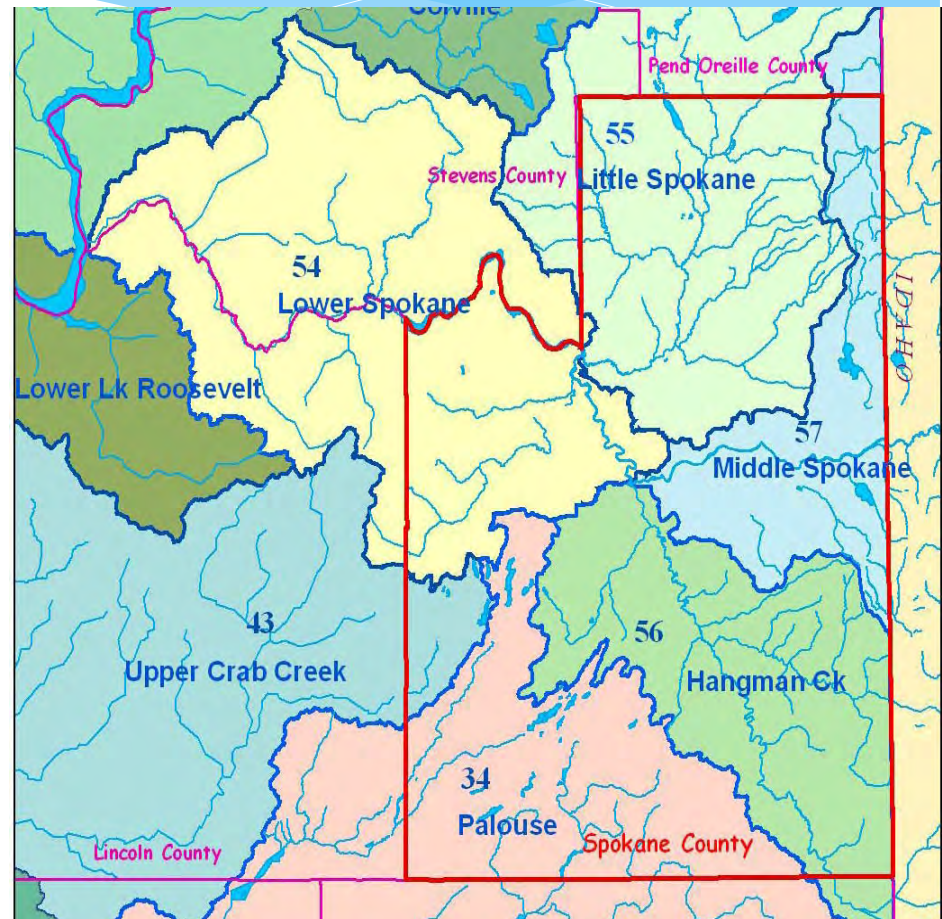
- * The WRIA 57 plan primarily addressed municipal water quantity concerns.



Watersheds in Spokane County

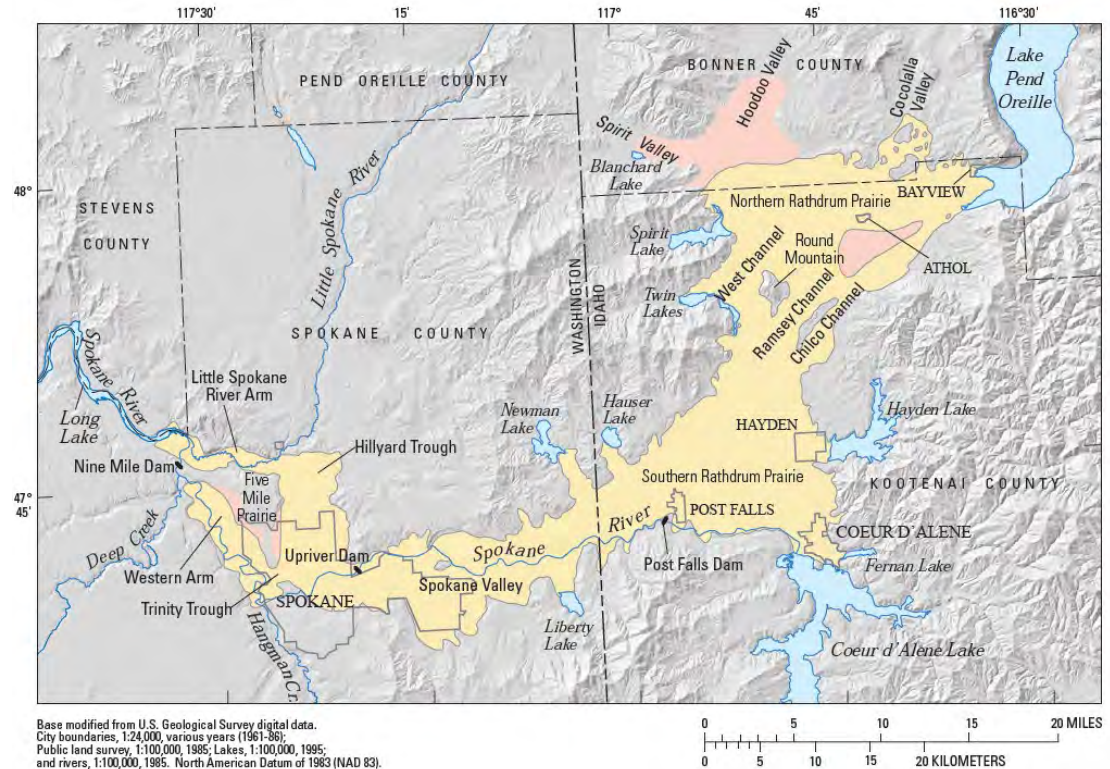
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SVRP Aquifer / River Interaction

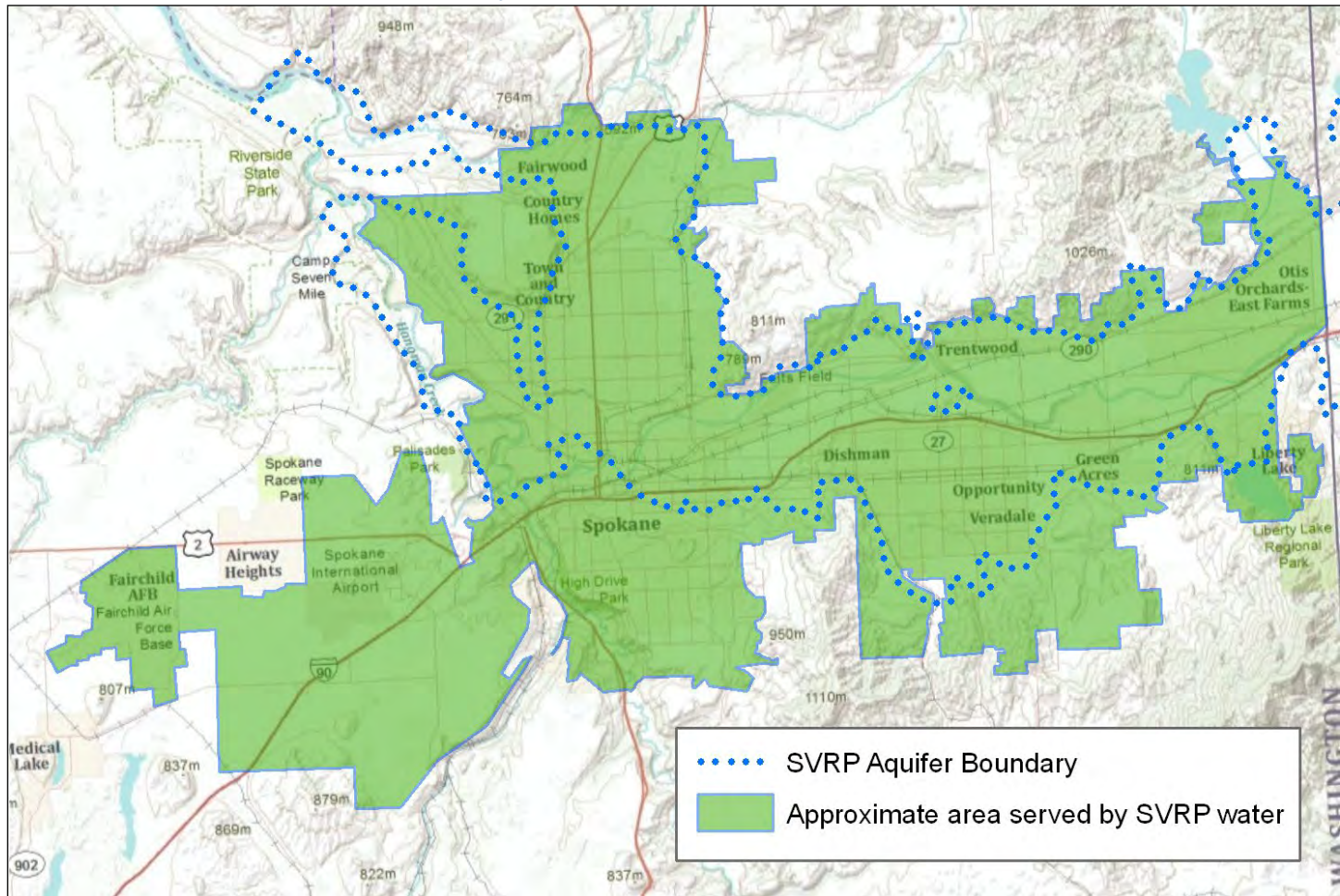
- * Sole source of drinking water for more than 500,000 in WA and ID
- * **70%** of Spokane County water use is from the Spokane Valley Rathdrum Prairie (SVRP) Aquifer.



- * Thoroughly studied and well understood hydrologic system.

Municipal Water - WRIA 57

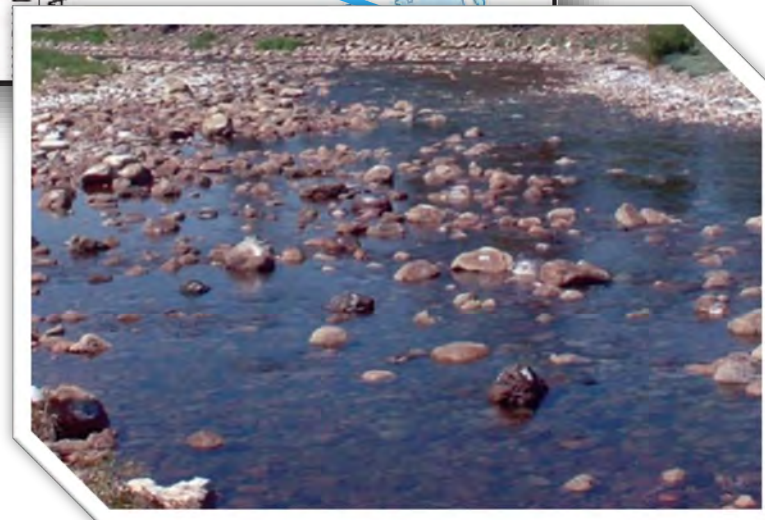
Areas served by water from the SVRP



SVRP Aquifer / River Interaction

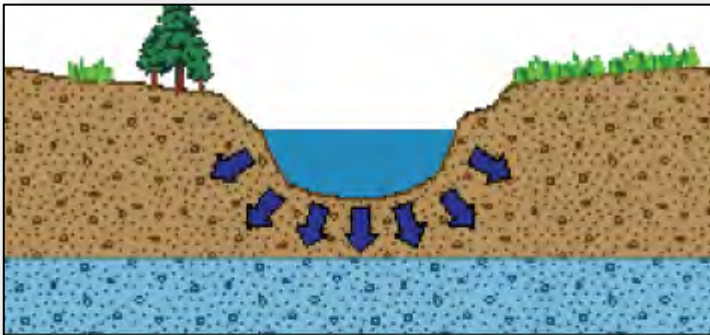
- * Designated a sole source aquifer in 1978 and has been studied extensively.
- * A bi-state study and groundwater flow model was completed by the USGS in 2007. The main conclusions were:
 - * Long term water levels are not declining;
 - * The Spokane River and the aquifer are well connected.
- * **The main issue is not depleting the aquifer, but the impact of withdrawals on the Spokane River in the late summer.**

SVRP Aquifer / River Interaction



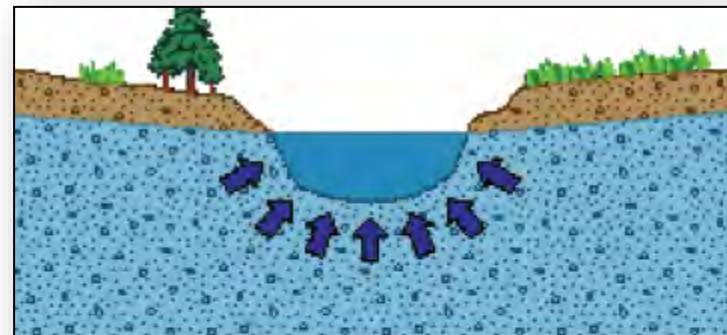
SVRP Aquifer

River – Aquifer Exchange



Losing Reach

Where the water table is far below the bed of the river, water percolates through the gravelly bed and downward into the Aquifer. In these locations the river is losing water, the typical condition for the Spokane River in Idaho and into Washington to Flora Road.

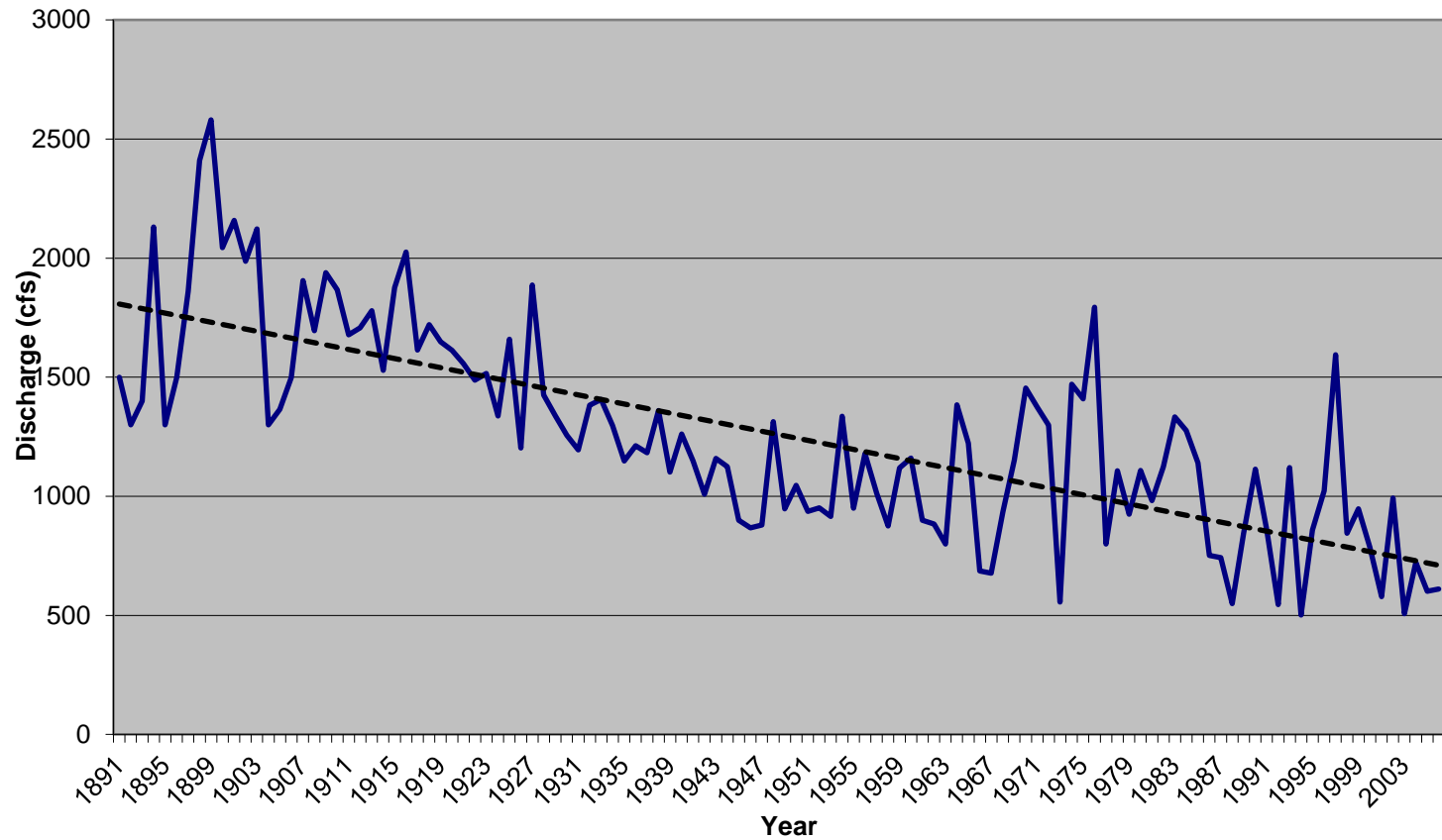


Gaining Reach

Where the water table is higher than the river bed, the Aquifer loses water through springs and seeps and adds volume to the river. In these areas the reach of the river is gaining. The reach between Sullivan Road and the Centennial Trail Bridge is a gaining reach.

Spokane River Flows

Spokane River 7 Day Low Flow: Spokane Gage



SVRP Aquifer and the Spokane River

- * Ecology interprets declining flows as an indication that there is no additional water available for appropriation
- * WAC 173-557 ; in January 2015 WDOE established an instream flow rule for the Spokane River
- * The instream flow rule is based on studies and recommendation from local watershed planning units.



SVRP Aquifer



**If there is no water left for appropriation
how will future growth be accommodated?**



Municipal Water Rights

Water rights are given for a specific purpose & amount. If that amount is not used for a 5 year period it is lost.

Municipal water rights are issued for current and future use. **There is no use it or lose it.**

Unused water rights are called **inchoate** water rights.

SVRP Aquifer Impact to Spokane River

- * There are approximately **85 billion** gallons per year of municipal water rights from the SVRP.
- * Approximately **45 billion** gallons per year are used.
- * Spokane County developed a water demand forecast model in 2011 and it estimates that **63 billion** gallons per year will be used in 2040.
- * If **85 billion** gallons are withdrawn, the USGS model predicts Spokane River flow in August will decrease by approximately **200 cfs**, or 20-25%.

SVRP Aquifer Into the Future

- * The region has a significant amount of inchoate water rights to accommodate future growth.
- * Some public water suppliers have a lot of inchoate water rights, and some have none.
- * If all the inchoate water rights are used there will be a significant decrease in Spokane River flows in the late summer.

Challenges in Our Municipal Watershed – WRIA 57

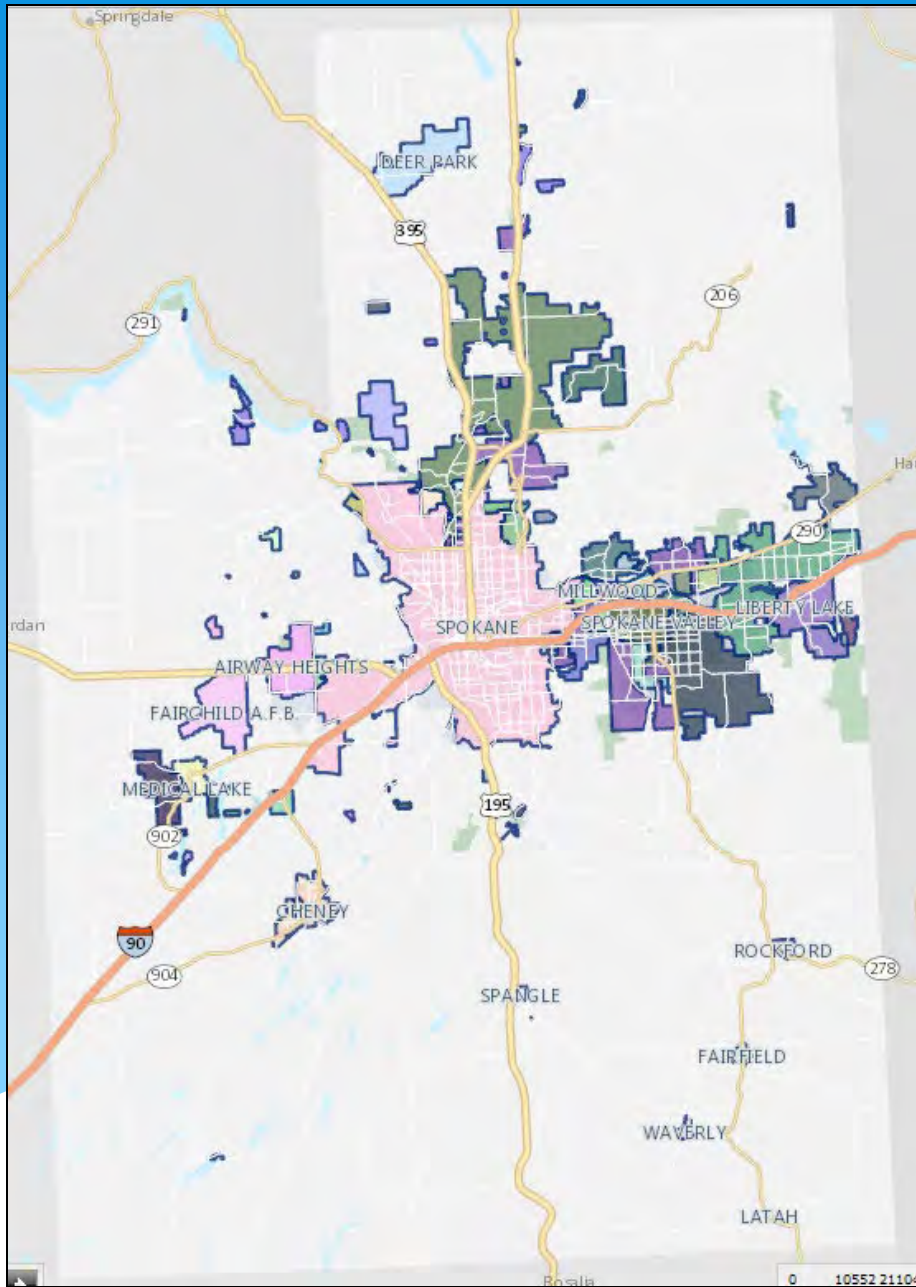


Emerging knowledge of ubiquitous toxics (PCBs, PFAS, etc.):

drinking water
waste water treatment
commercial products



Water systems infrastructure



Rural Water Use

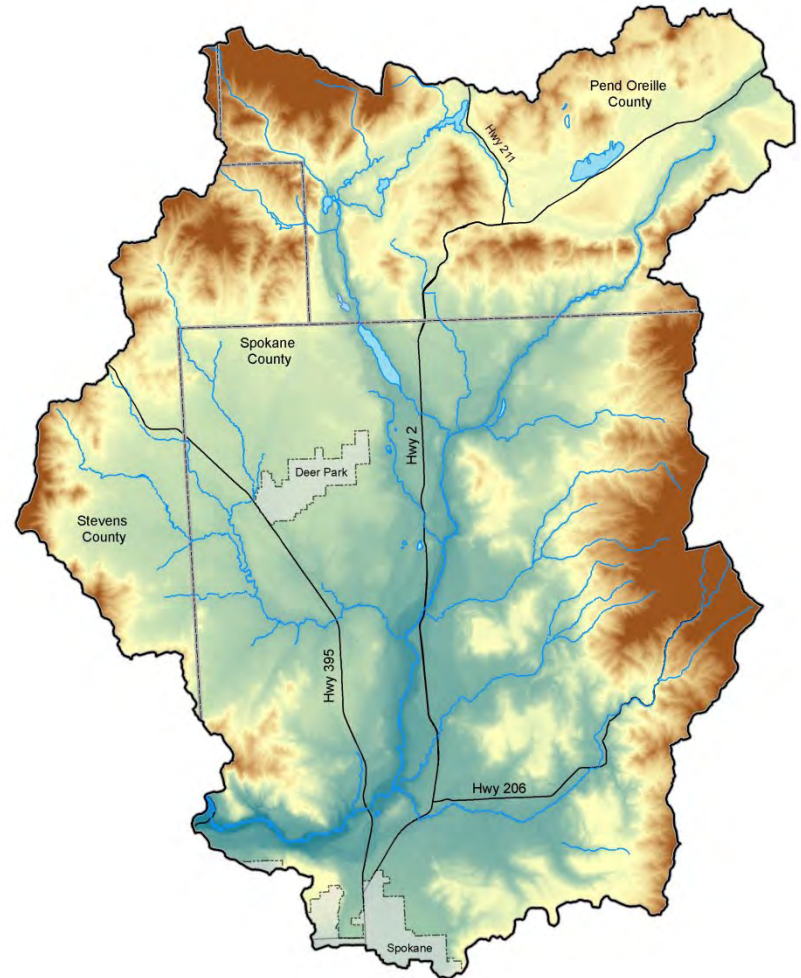
Rural Water Use

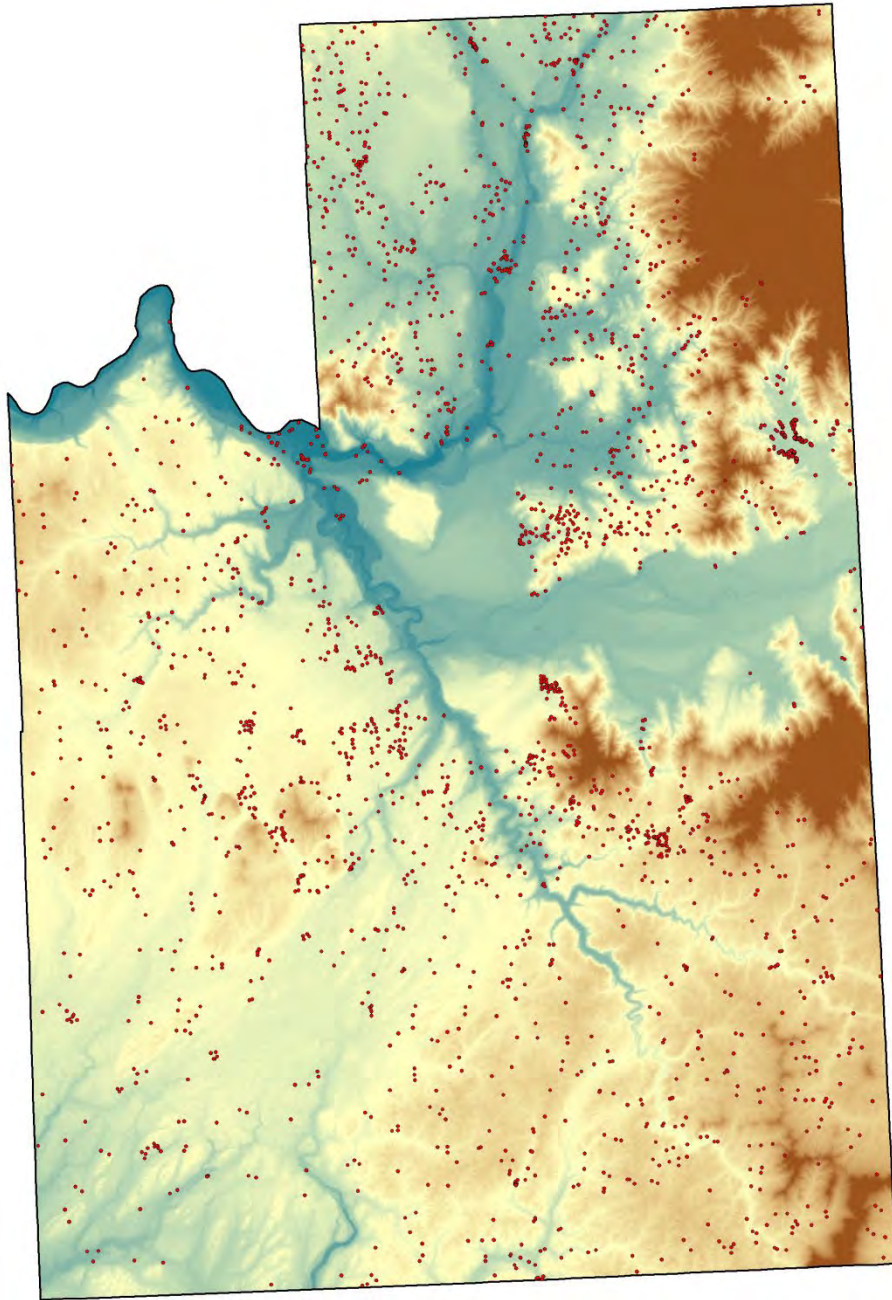
- * Outside public water service areas water service is largely provided by individual wells.
- * When the Groundwater Code was established in 1945 these uses were considered de minimis.
- * These wells are not exempt from the groundwater code, just permitting. A popular misconception.



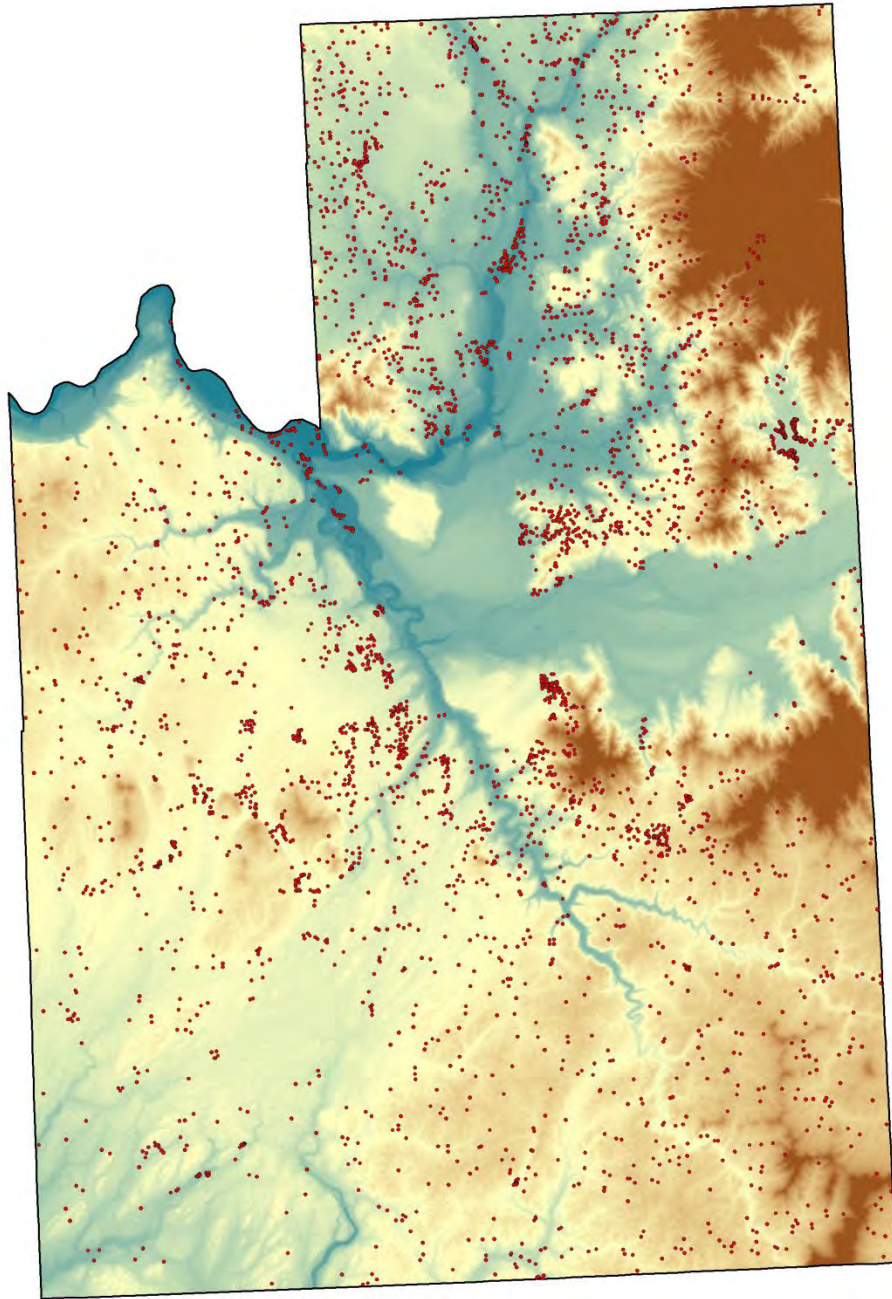
Rural Water Use in WRIA 55

- * The Little Spokane Basin has been closed to new water rights since 1976; the river does not meet the minimum flow in the late summer.
- * The basin was closed but new exempt wells continued to provide water for new development.

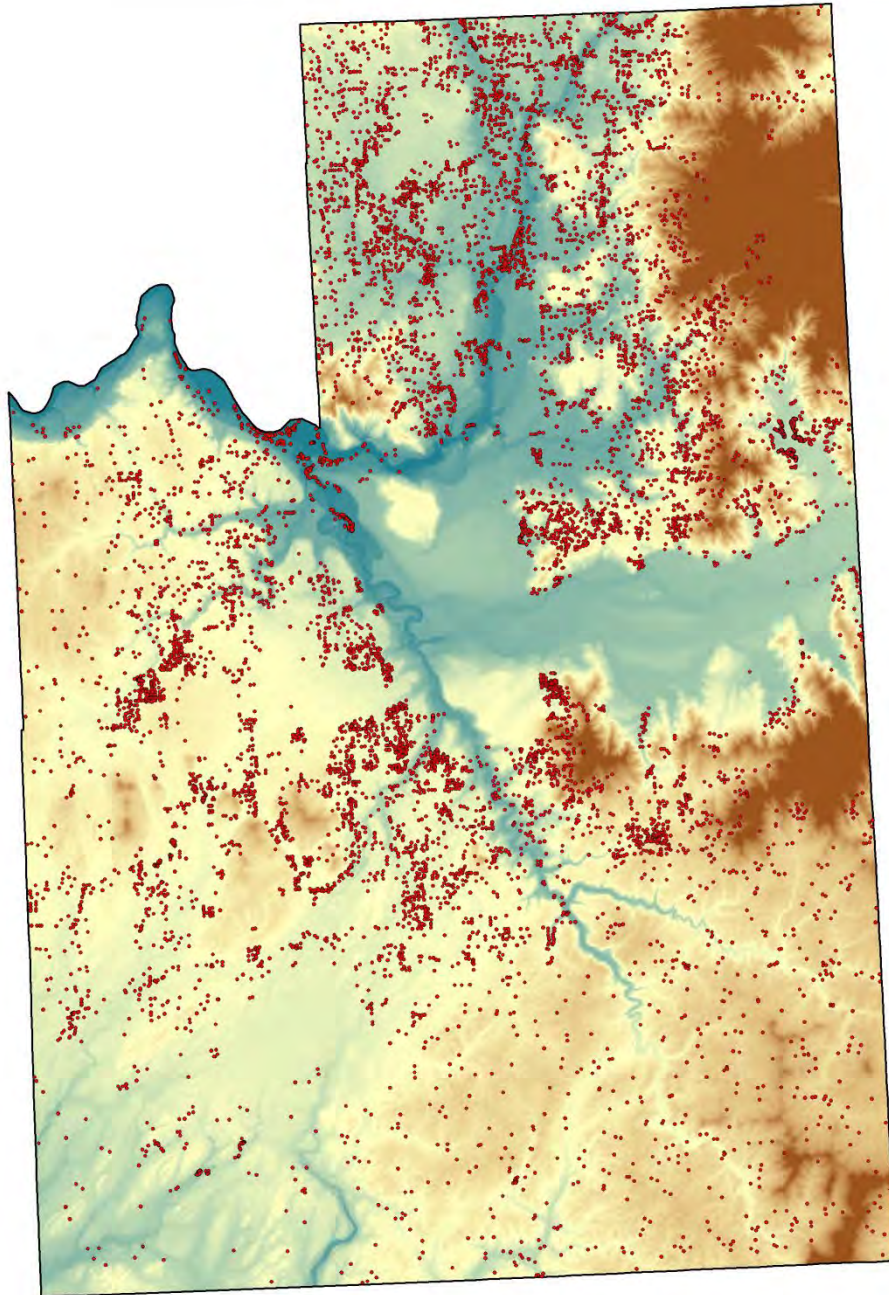




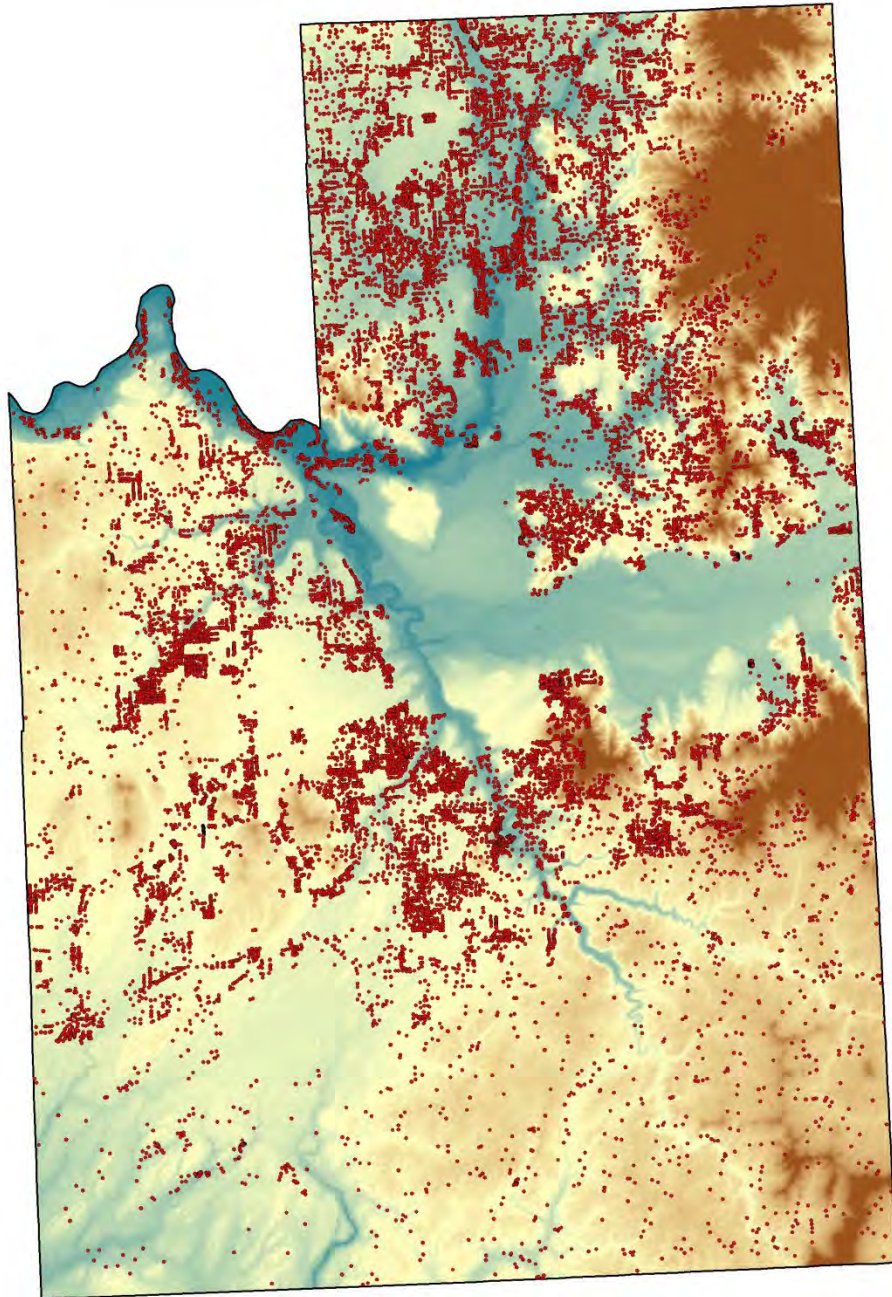
Estimated Permit Exempt Wells - 1945



Estimated Permit
Exempt Wells -
1965

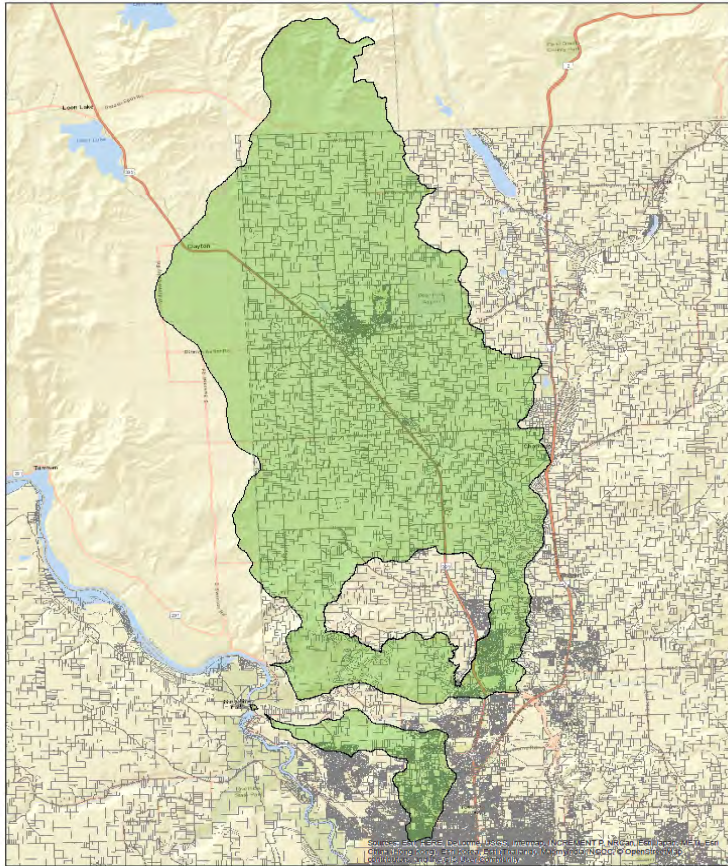


Estimated Permit
Exempt Wells -
1985



Estimated Permit Exempt Wells - 2011

Little Spokane Water Bank



Little Spokane Water Bank
Approved Mitigation Area
December 4, 2017

The Approved Mitigation Area is the area where stream flow mitigation certificates are available under the first water right put into the Little Spokane Water Bank.

A mitigation certificate allows a new use of water in the Little Spokane Watershed (WRIA 55) that is not subject to restrictions found in WAC 173-555 (Little Spokane River Instream Flow Rule). Building permits issued within the Approved Mitigation Area are still subject to well setback requirements.



Initiated as part of the WRIA 55/57 Plan

County Issuing Mitigation Certificates tied to valid water right. 100's issued

Superseded by Hirst fix, and \$500 well fee. Now used for instances where permit exempts are not legal.

'Hirst' Decision – 2016

Whatcom County v Hirst, Futurewise

Washington State Supreme Court:

A new well cannot impact a protected river or stream, or an existing senior water right.

2017 - building moratorium in the Little Spokane watershed.

2018 Legislation opened the watersheds and funded Counties with closed basins to amend watershed plans.

The Amended WRIA 55 Plan was completed in 2020.



Update for WRIA 55/57

- * Spokane County has since purchased water rights, developed a water bank, and is tracking/reporting new construction in WRIA 55
- * Developed draft water resource protection ordinance
- * Growth Management Planning
 - * Capital facilities planning update is complete
 - * Comp Plan update planned for 2025
- * Coordinated Water System Plan update forthcoming

- * Idaho Washington Aquifer Collaborative
- * Spokane River Forum

www.spokanewatersheds.org



- * The Watershed Planning Clearinghouse
 - * Organized by WRIA
 - * Includes most background information/documents
- * Hydrogeologic Portal
 - * Data summaries and supporting information

Thank you !

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