

Protecting Spokane River Flow

Guy Gregory

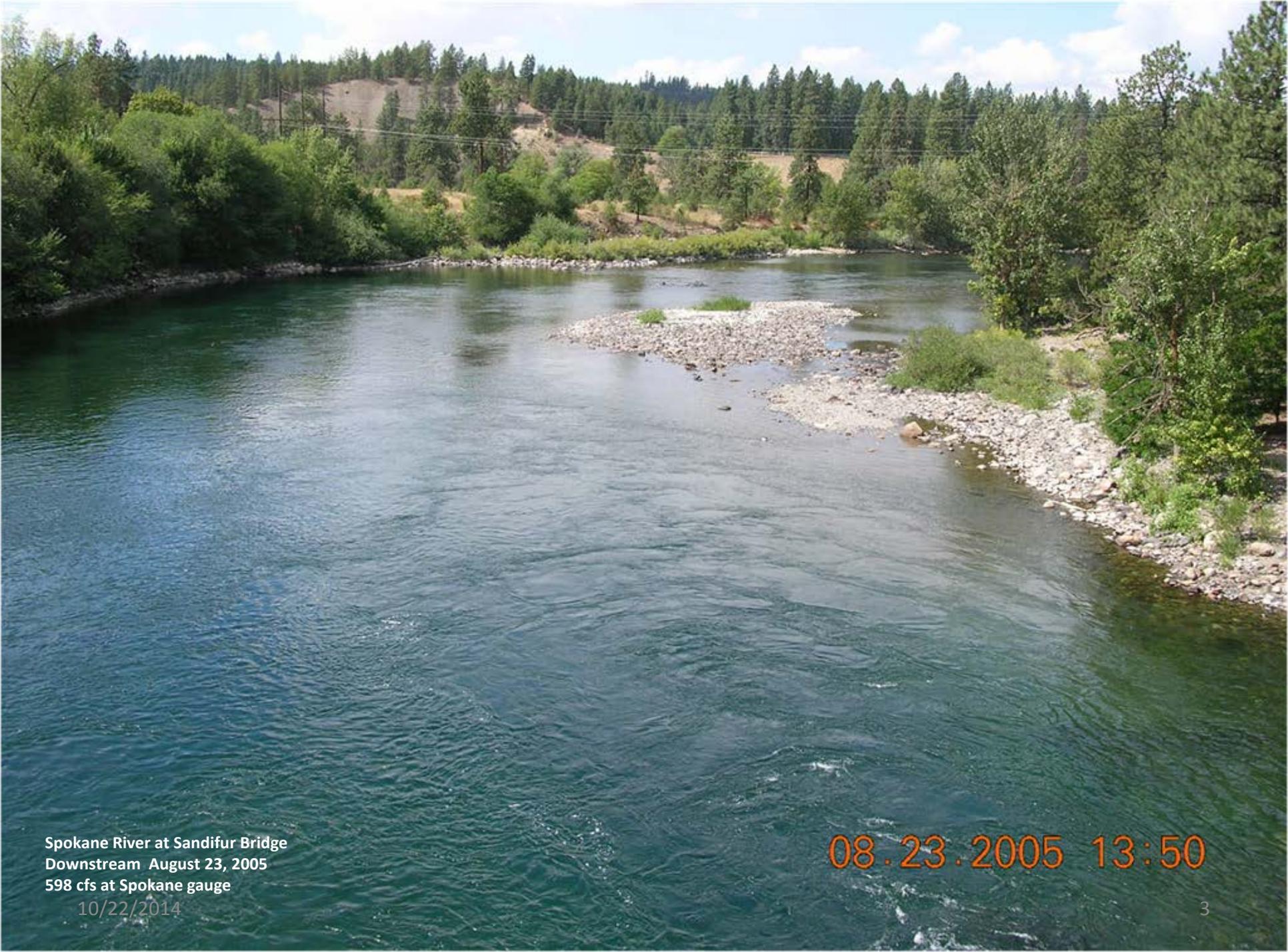
Technical Unit Supervisor, Water Resources Program
Spokane, WA



10/22/14

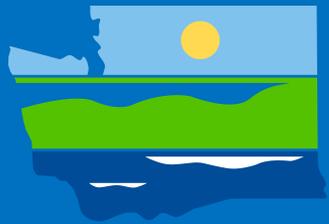
Proposed Spokane River instream flow rule

**GOOD FOR ENVIRONMENT,
ECONOMY, AND COMMUNITY**

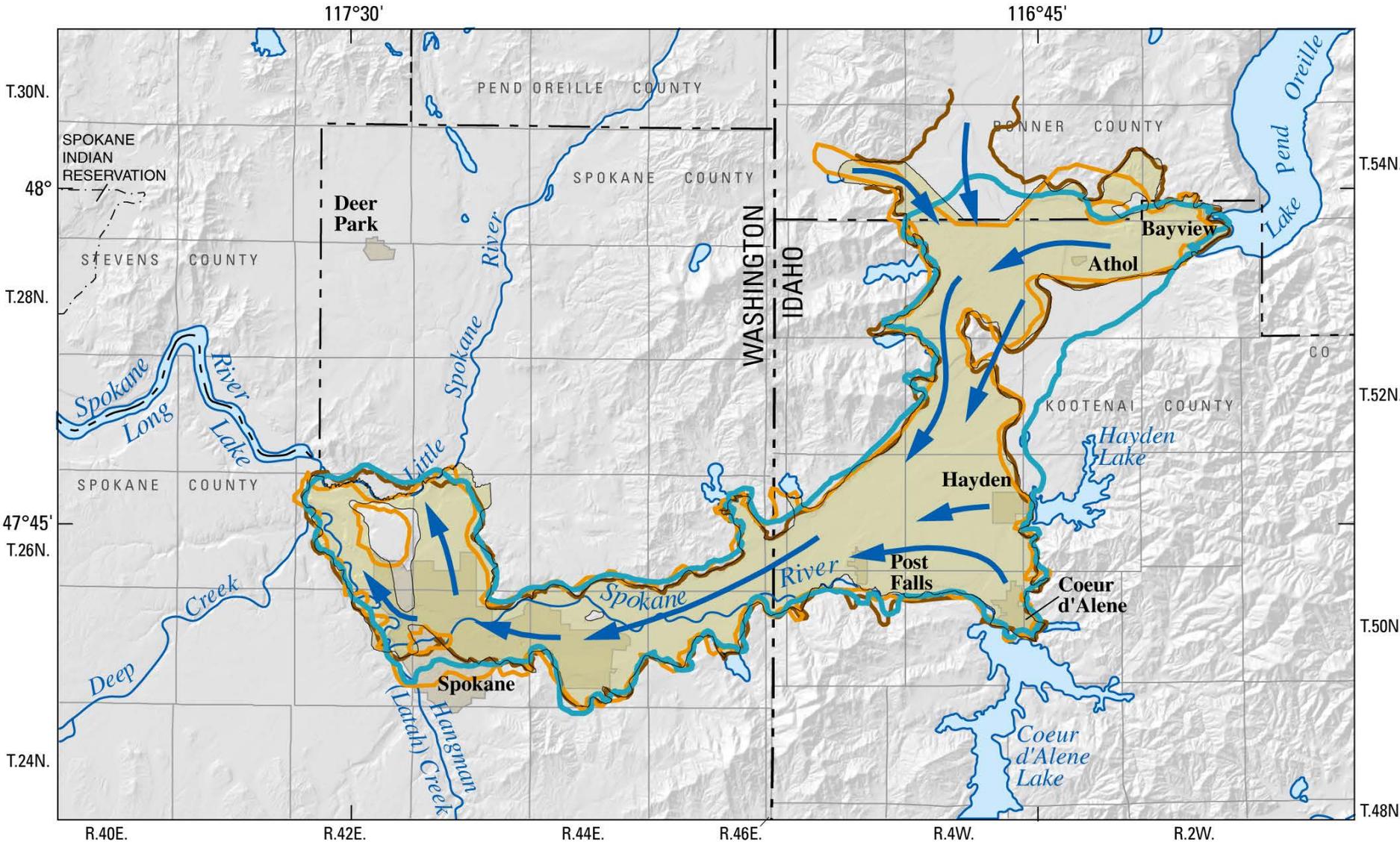


Spokane River at Sandifur Bridge
Downstream August 23, 2005
598 cfs at Spokane gauge
10/22/2014

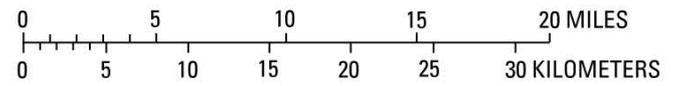
08.23.2005 13:50



The river and aquifer

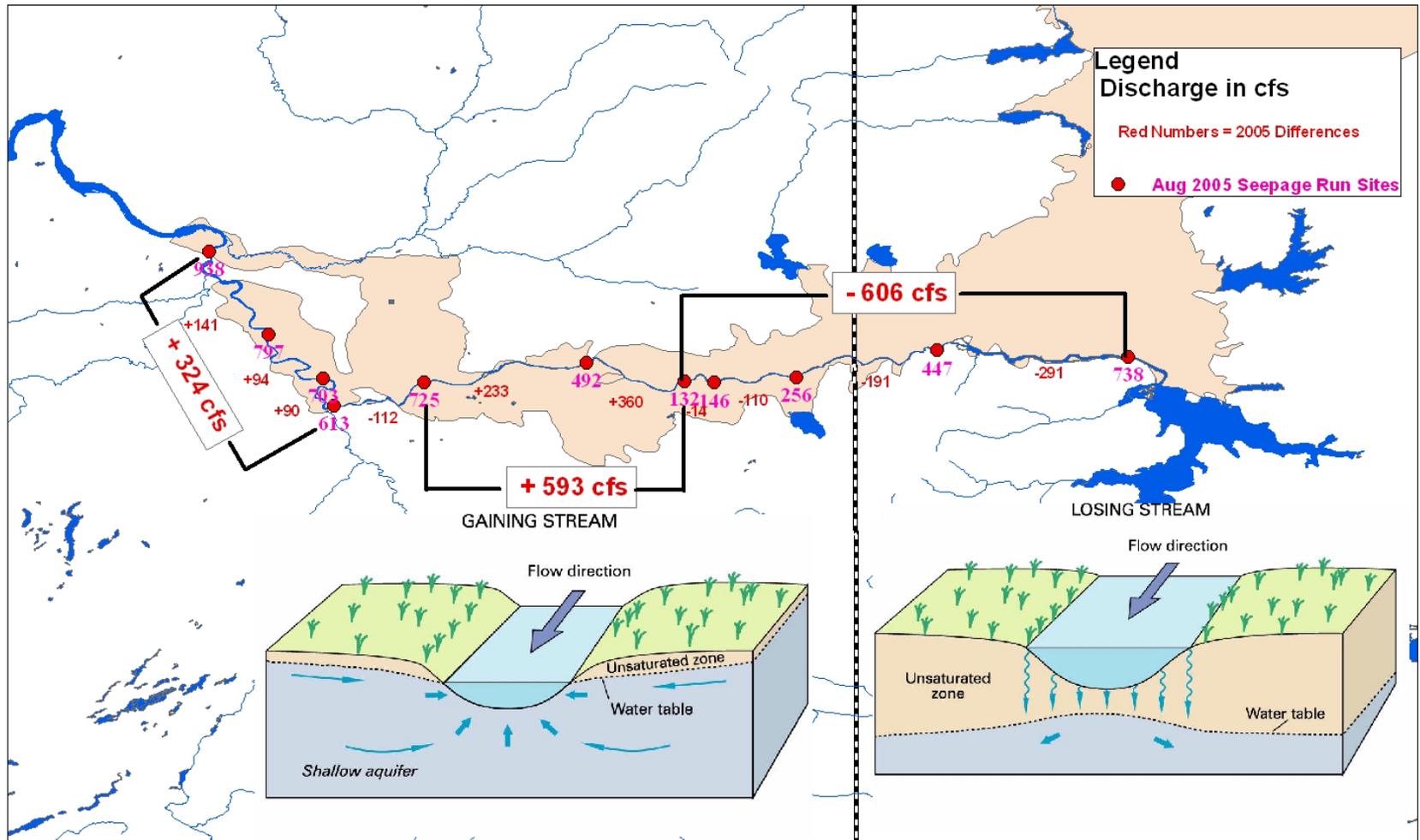


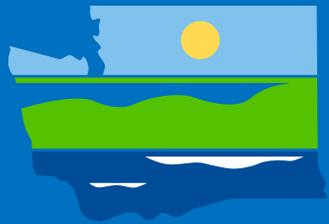
Base modified from U.S. Geological Survey digital data.
 City boundaries, 1:24,000, various years (1961 through 86);
 Public land survey, 1:100,000, 1985; Lakes, 1:100,000, 1995;
 and Rivers, 1:100,000, 1985. North American Datum 1927
 (NAD 27).



10/22/2014

Hydraulic connection





Purpose of rule

Protect instream resources in Washington

- Fish habitat
- Recreation
- Wastewater management
- Hydropower
- Aesthetics



Additional benefits

- Protects existing water rights
- Meets community water management objectives
- Establishes and protects Washington's interests in river flow



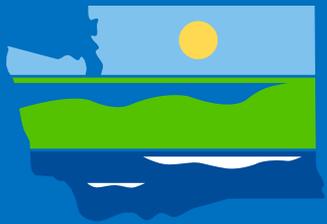
Instream flow rules

Do

- Establishes a minimum flow
- Prevent further degradation from new uses
- Protect senior water rights

Do NOT

- Add water to streams
- Affect use of existing water rights
- Affect tribal or federal reserved rights

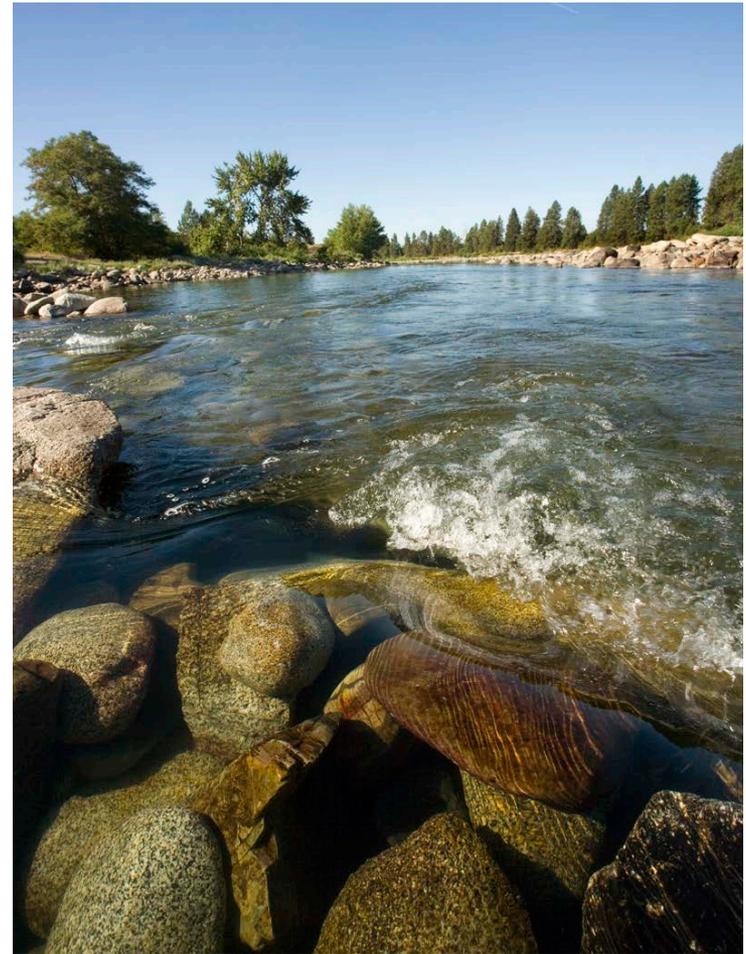


Key Rule Elements

Proposed Spokane River rule (Ch. 173-557 WAC)
and amendment to Little Spokane rule (Ch. 173-555 WAC)

Edits to the draft

- Expanded reopener clause for new information
- Removed metering
- Clarified mitigation language for exempt wells
- Cleared up the relationship to the Little Spokane rule amendment



Spokane Instream Flow Rule

- Sets regulatory instream flow levels for the Spokane River at Greenacres and Spokane gages
- Requires new uses of water to be interrupted when instream flows are not met at these places and times, unless mitigated
- “New uses” are uses junior to the rule. Existing rights are not affected.



Proposed flows are based on multiple studies:

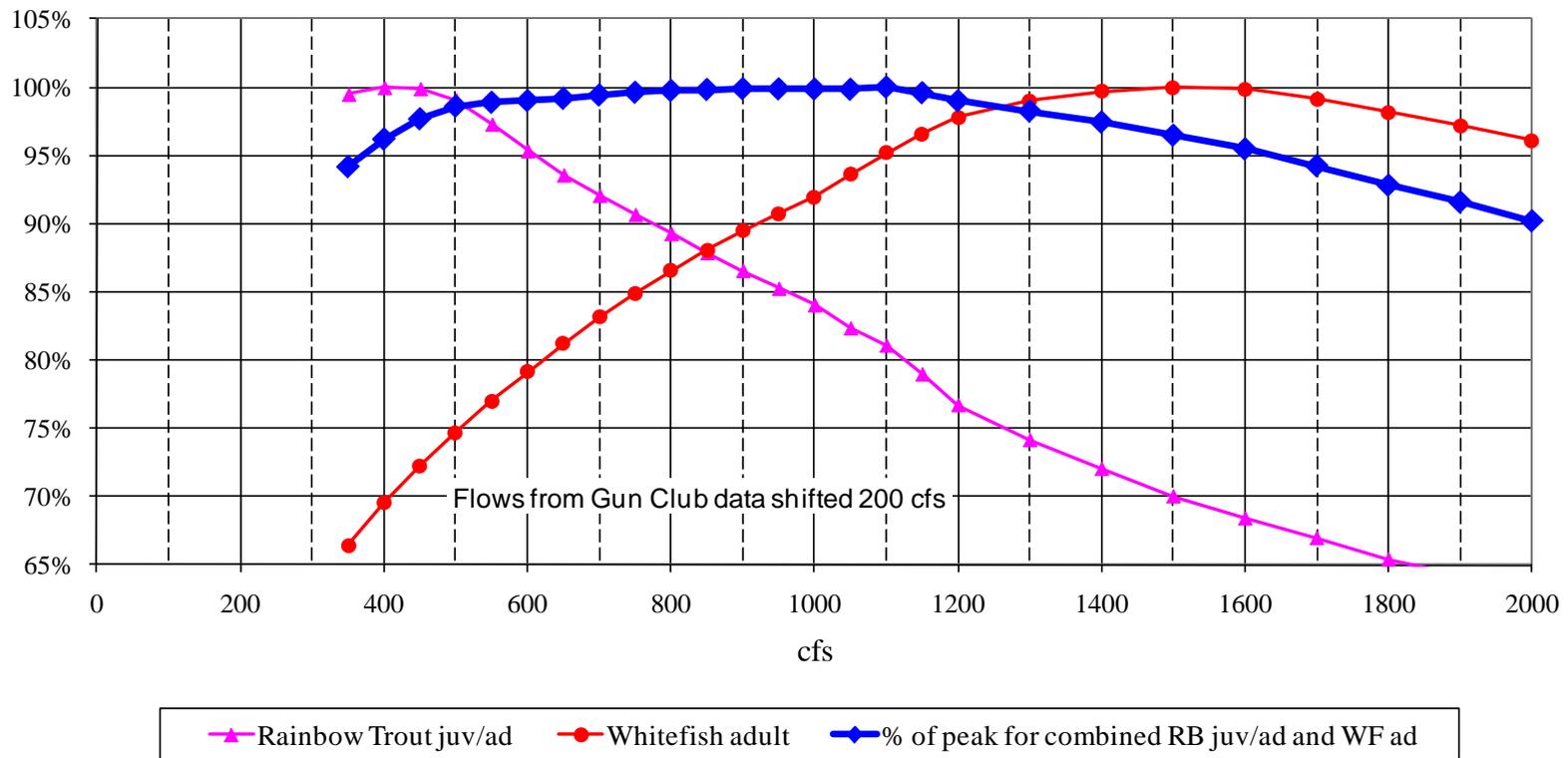
- Four major Instream Flow Incremental Methodology (IFIM) Studies done for:
 - Avista's dam relicensing (2010 and ongoing)
 - Spokane region WRIA watershed plans (2005-2009)
 - Spokane River Redband trout population study (2007 and ongoing)
- Spokane Valley-Rathdrum Prairie Aquifer study (2007)



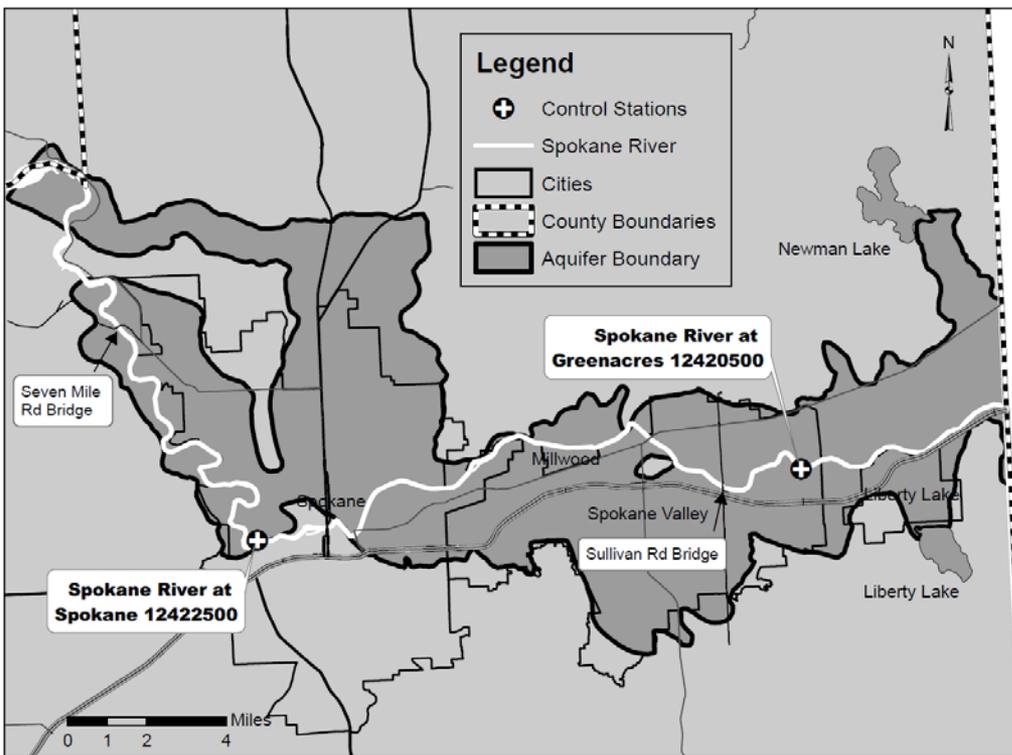
Four campaigns of fish science investigations 2000-2011

Result: June 16 -September 30 minimum flows to protect fish= 850 cfs.

**Lower Spokane River Instream Flow Data
Combined Percentages based on 'at Spokane' Flow
Weighted Proportionally to Reach Length
(20% for 'at Spokane', 80% for Gun Club)**

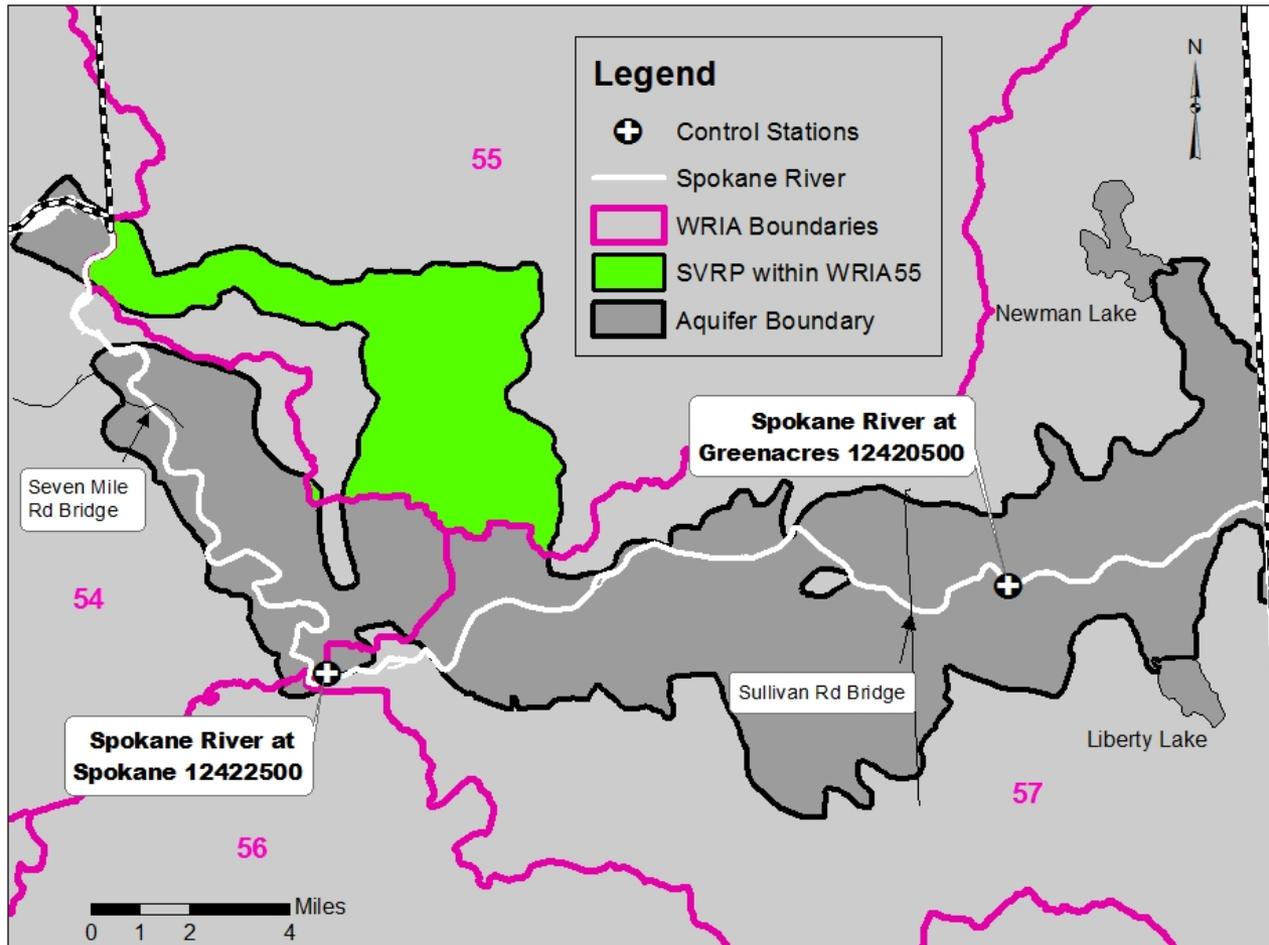


The basics: Where, when, and how much



	Spokane	Greenacres
October 1- March 31	1700 cfs	
April 1- June 15	6500 cfs	
June 16 - September 30	850 cfs	500 cfs

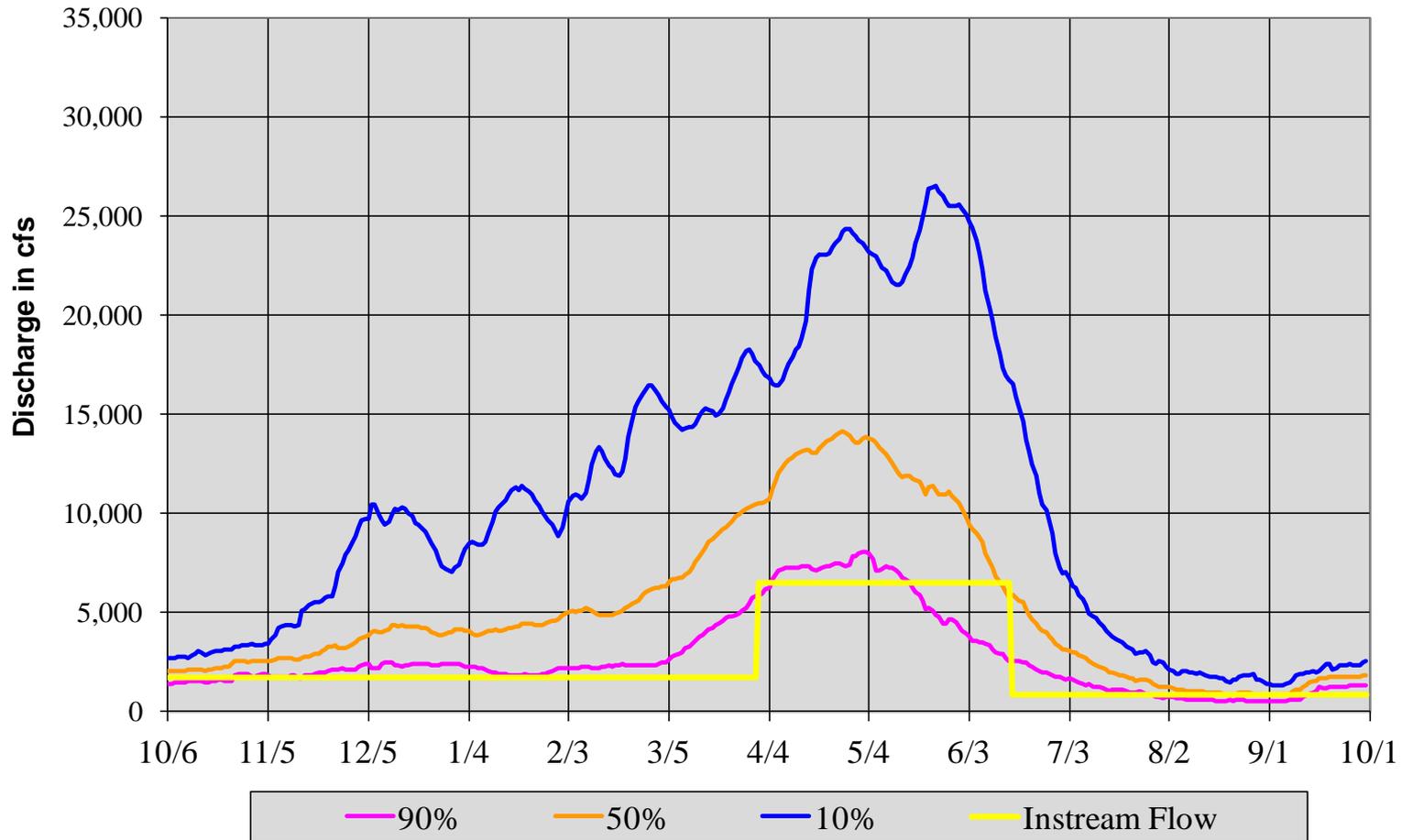




WAC 173-555-010 General provision. These rules, including any subsequent additions and amendments, apply to waters within and contributing to the Little Spokane River basin, WRIA-55 (see WAC 173-500-040). Chapter 173-500 WAC, the general rules of the department of ecology for the implementation of the comprehensive water resources program, applies to this chapter 173-555 WAC. In the area where this rule and chapter 173-557 WAC overlap, the application of each rule shall be determined as follows:

- (1) New water use from the Little Spokane River, its tributaries, and the shallow aquifer associated with the Little Spokane River and its tributaries shall be regulated under this rule (chapter 173-555 WAC).
- (2) New water use from the Spokane Valley Rathdrum Prairie aquifer shall be regulated under chapter 173-557 WAC, Water resource management program for the Spokane River and Spokane Valley Rathdrum Prairie (SVRP) aquifer.

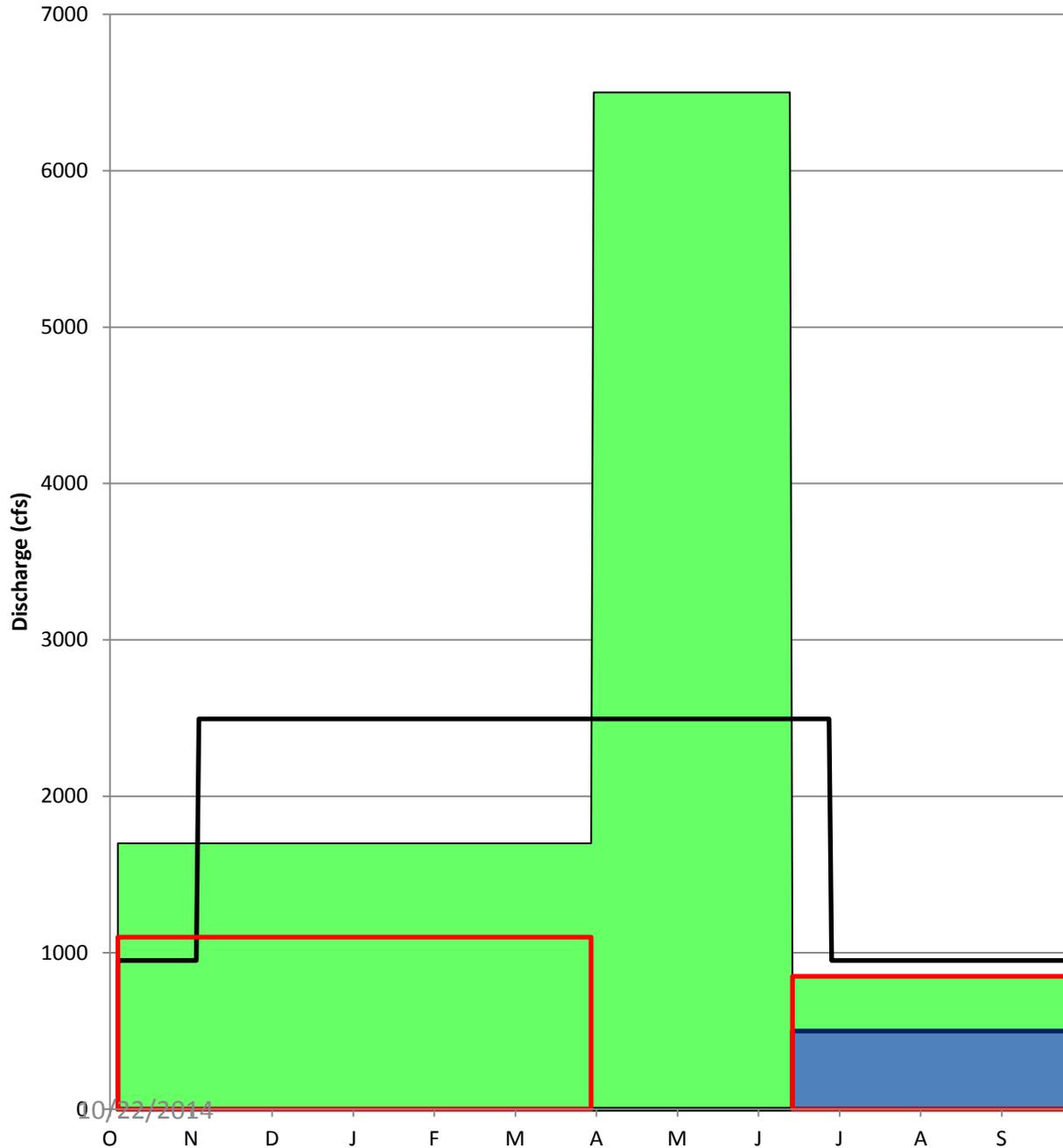
Spokane R at Spokane Exceedance Curves 1986 - 2008



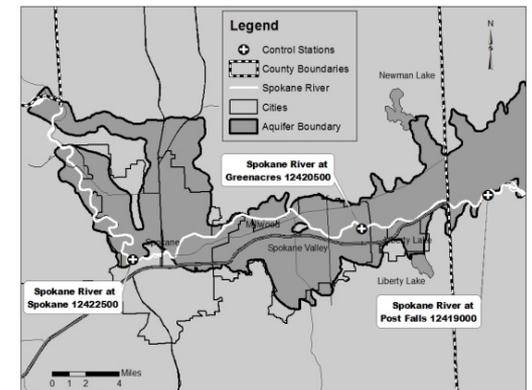
Rule Summary: Regulatory flows in Washington

Date	FERC License Flow at Spokane Gage	Proposed Instream Flow at Spokane Gage	Proposed Instream Flow at Barker Gage
October 1-March 31	1100 cfs	1700 cfs	
April 1-June 15	TBD	6500 cfs	
June 16-September 30	850 cfs	850 cfs	500 cfs

Spokane River Regulatory Flows



- Proposed Instream Flows at Spokane gage
- Proposed Instream Flows at Greenacres gage
- IWRB License 95-08780 Spokane Instream Flows-Post Falls gage
- FERC License Flows At Spokane gage



Before Commissioners: Jon Wellinghoff, Chairman;
Sudeen G. Kelly, Marc Spitzer,
and Philip D. Moeller.

Avista Corporation

Project Nos. 2545-091
12606-000

SUMMARY OF LICENSE REQUIREMENTS

56. As summarized below, this license requires numerous measures to protect and enhance fish, wildlife, water quality, recreation, cultural, and aesthetic resources at the project.

A. Minimum Flows

57. To enhance aquatic habitat for the wild rainbow trout population downstream of Post Falls dam, the license requires Avista to maintain a minimum discharge of 600 cfs from the Post Falls dam from June 7 until the Tuesday following Labor Day each year, and reduce the minimum discharge to 500 cfs if the lake level falls below 2,127.75 feet during the summer full-pool period. The contingency for a 500-cfs minimum flow release will help ensure that sufficient water is stored in Coeur d'Alene Lake to maintain lake elevations for summer recreation, and provide for protection of aquatic habitat for rainbow trout in the Spokane River during low-water years.

58. Avista is required to release 46 cfs from the Post Falls development North Channel dam on weekends between the hours of 12:00 noon and 6 p.m. (daily) from Memorial Day weekend through Labor Day to enhance the aesthetic quality of the North Channel bypassed reach.³⁹

59. The license requires Avista to implement a down-ramping rate of no more than four inches per hour downstream of Post Falls dam, and prepare a ramping rate report that documents the effects of a four-inch-per-hour down-ramping rate on rainbow trout, and the anticipated benefits and costs of implementing a more-restrictive ramping rate.

60. The license requires Avista to operate the Monroe Street and Upper Falls dams to provide minimum flows of 850 cfs from June 16 to September 30 and 1,100 cfs from October 1 to March 31 each year. These minimum flow releases will enhance aquatic habitat for rainbow trout and mountain whitefish in the Spokane River. Avista also must conduct an analysis of spawning habitat, spawning success, and rainbow trout population response to flow alterations in the Spokane River below Monroe Street and Upper Falls dams. The analysis will assist in the development of rainbow trout spawning flow releases at Monroe Street dam from April 1 to June 15.

ORDER ISSUING NEW LICENSE AND APPROVING ANNUAL CHARGES
FOR USE OF RESERVATION LANDS

(Issued June 18, 2009)

FERC License controls Hydro facility Operations: Minimum releases to the river, ramping rates, hydrograph shape, timing, etc.

Ecology's Instream Flow Rule *only addresses* new junior water uses and when they are interruptible to protect the instream flow. It does not change the hydrograph.



Economic Analysis

Cost-Benefit and Least Burdensome Alternative Analysis

- *“... that the benefits of the proposed rule are greater than the costs and ... we are proposing the least burdensome alternative of the rule.”*

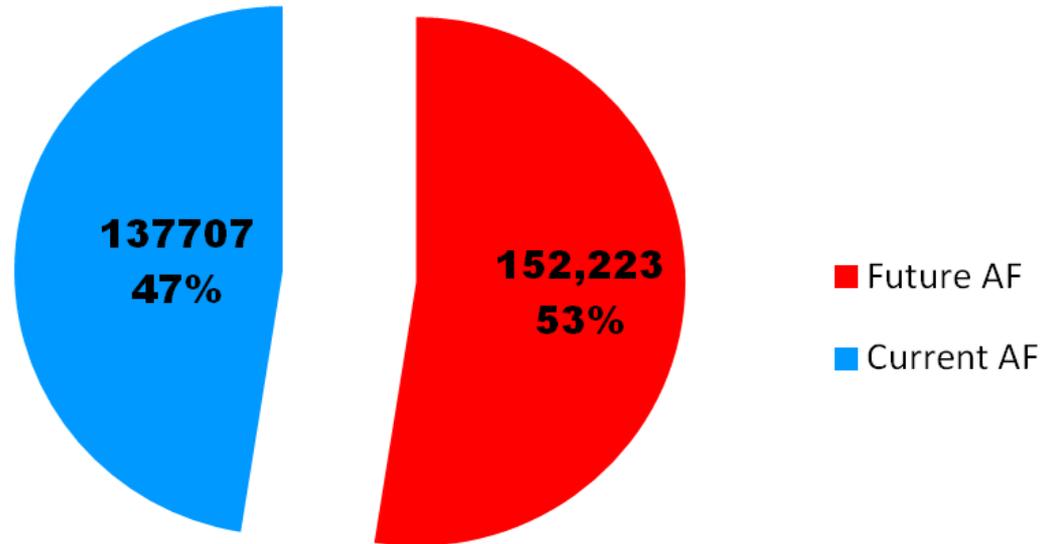
Small Business Economic Impact Statement

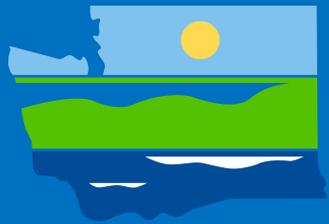
- *“Essentially this proposed rule has little or no impact on small or any other business. All current businesses already operating under an established water right are not affected.”*



Existing Rights

Spokane Valley Rathdrum Prairie Aquifer in WA
Existing Purveyor Water Use vs
Future Authorized Use (Inchoate Paper)





Timing and process

Public Comment

- Documents available:
 - SEPA determination
 - Proposed rule
 - Rule amendment
 - Cost-benefit and least burdensome analyses
 - Small business economic impact statement
- How to comment:
 - Tonight's testimony
 - Online Comment Form
 - Email
 - Traditional post
 - Fax

Ann Wessel
Washington Dept. of Ecology
1440 10th St, Ste 102
Bellingham, WA
ann.wessel@ecy.wa.gov
FAX: 360-715-5225



Public comment

Deadline:
November 7,
2014 at 5:00 pm

www.ecy.wa.gov

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River rule

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- Our Living Shorelines
- Saving Puget Sound

MORE ECOLOGY TOPICS:

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- Columbia River Water Management
- Hanford & Nuclear Waste
- Spokane River Basin

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KEEP UP WITH US

HOW DO I?

- Report a spill or other environmental problem
- Apply for a permit
- Find well log information
- Get a vehicle emissions test
- Search 1-800-Recycle for services
- Get a burning permit
- Report suspected tsunami debris
- View shoreline photos
- Complete a SEPA environmental review
- Find toxic cleanup site information
- Look-up watershed data
- Find environmental data
- Get news and info about Ecology
- Change my address with Ecology
- Contact staff or locate Ecology offices
- Find a grant or a loan

ECOLOGY NEWS

- Sep 30: Details of draft fish consumption rule released
- Sep 30: Seattle metal finisher settles hazardous waste violations
- Sep 24: Cleanup plan proposed for Bremerton school property
- > More news...
- > See our blog...

SPOTLIGHT

- Clean water standards
- Oil transport in Washington
- > Preliminary Report
- Spokane River rule making**
- Gas station cleanups (TAAG)
- Boeing Auburn groundwater
- Marijuana licensing and the environment
- Agriculture & Water Quality Advisory Committee
- Coal export project proposals:
- > Gateway Pacific Terminal
- > Millennium Bulk Terminals
- Crude by rail project proposals:
- > Westway and Imperium Expansion Projects
- > Grays Harbor Rail Terminal
- Don't Drip and Drive — auto leaks workshops
- Arsenic & lead soil sampling
- Shoreline Master Programs
- E-Cycle Washington
- Clean water education:
- > Washington Waters
- > Puget Sound Starts Here

Composting reduces food waste

Composting reduces food waste from EcologyWA on Flickr

- > Garden Talk (ECOconnect blog)
- > Food Waste Prevention (Organic materials management)
- > Compost & Healthy Soil

>> More feature topics...





Thank you
Guy Gregory
509-329-3509

Spokane River at Sullivan- Upstream
August 31, 2007
327 cfs at Post Falls dam
10/22/2011