



# The Significance of Water Right Attributes

...And How They Affect Water Right Value

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# Overview

1. Extent and Validity
2. Water Right Attributes
3. Mitigation Suitability



# Extent and Validity

## ■ Beneficial Use

- Paper vs. Legal

Use:	Irrigation of 85.9 acres and stock water
Period of Use:	April 1 through October 31
Quantity:	1.0 cubic foot per second, 300.96 acre-feet per year

## ■ How Do I Lose A Water Right?

- Abandonment
- Relinquishment
- Lack of Diligence

### *Relinquishment or abandonment concerns*

Describe any relinquishment or abandonment of the water right associated with the water right transfer application as discussed in the investigation section of this report.

A small quantity of water associated with inconsistent irrigation (0.69 acres) have been relinquished due to non-use. In addition, as discussed above, peak irrigation demand during June, July, and August exceed the Court-awarded instantaneous rate (Qi). Therefore, due to non-use of 0.69 acres and Qi limitation, the relinquished amount is 145.65 ac-ft/yr.

## ■ Relinquishment Exemptions

## ■ Ecology Decision or Adjudication

# Water Right Attributes

# Water Right Attributes

CLAIMANT NAME: Kelley-Lowery Ditch Company COURT CLAIM NO. 01392 (A)02989

Certificate Number: S4-83219-J

Subbasin: 19 Lower Naches

Source: Naches River

Use: Irrigation of 868.71 acres, which includes frost protection and spray water, and stock water

Period of Use: March 1 through October 31

Quantity: 11.5 cubic feet per second; 2843.55 acre-feet per year for irrigation, including frost protection and spray water; 0.02 cubic foot per second, 2 acre-feet per year for stock water; 19.5 cubic feet per second for conveyance

Priority Date: June 30, 1872

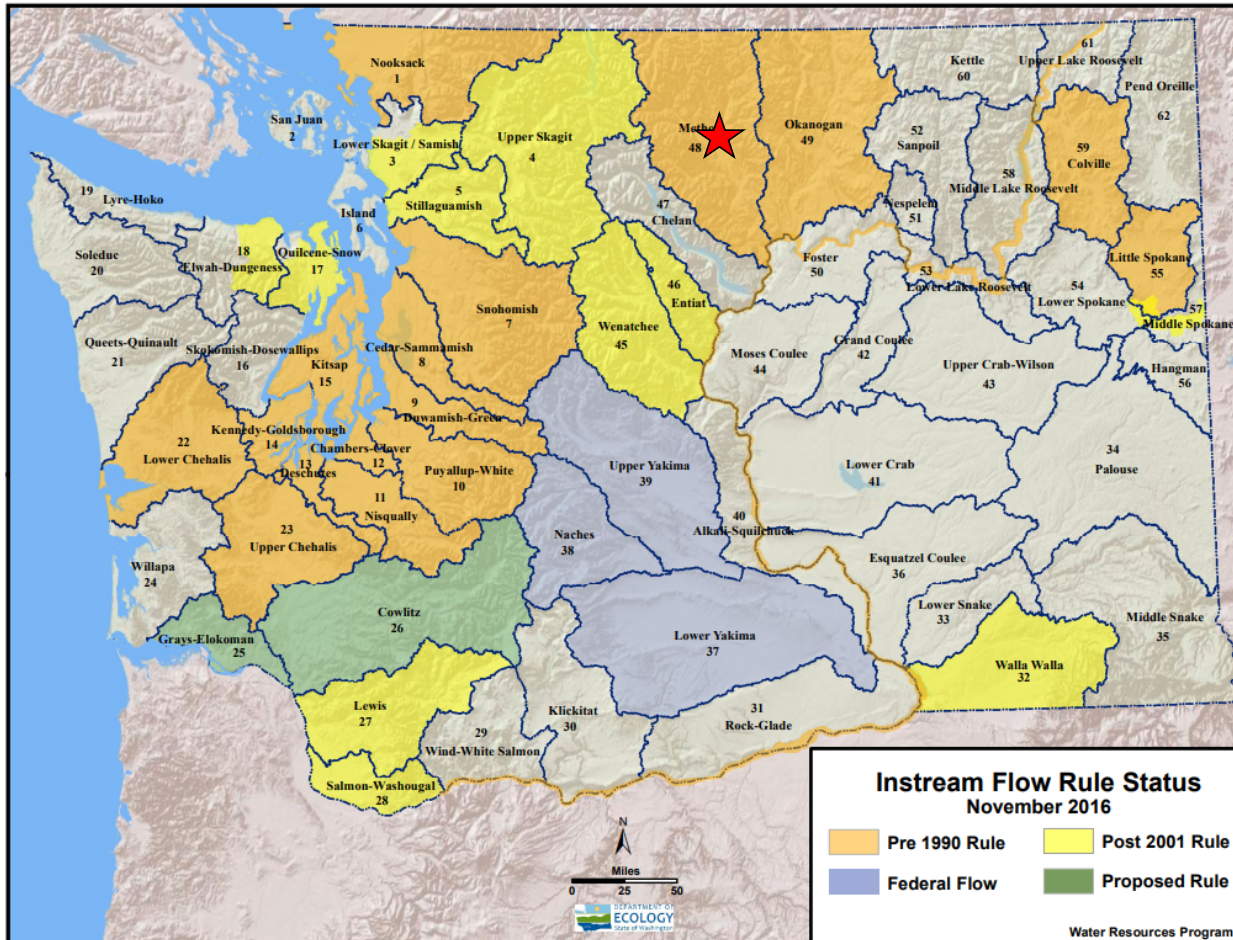
Point of Diversion: 175 feet south and 500 feet east of the west quarter corner of Section 4, being within the NW<sup>4</sup>SW<sup>4</sup> of Section 4, T. 14 N., R. 17 E.W.M.

Place of Use: That portion of the SW<sup>4</sup>SW<sup>4</sup> of Section 2 lying southwesterly of the Lowery Ditch; AND the SW<sup>4</sup>, the SW<sup>4</sup>NW<sup>4</sup>SE<sup>4</sup>, the S<sup>4</sup>SE<sup>4</sup> of Section 3; AND the SE<sup>4</sup>SE<sup>4</sup>NW<sup>4</sup>, the NE<sup>4</sup>NE<sup>4</sup>SW<sup>4</sup>, and that portion of the E<sup>4</sup>SE<sup>4</sup> lying northeasterly of the Naches River, Section 4; AND that portion of the NE<sup>4</sup> of Section 10 lying northeasterly of the Naches River; AND that portion of the NW<sup>4</sup> of Section 11 lying southwesterly of the Lowery Ditch, that portion of the SW<sup>4</sup> of Section 11 lying northeasterly of the Naches River, the NW<sup>4</sup>SE<sup>4</sup>, the S<sup>4</sup>SE<sup>4</sup>, and the SW<sup>4</sup>SW<sup>4</sup>NE<sup>4</sup> of Section 11; AND the NW<sup>4</sup>NW<sup>4</sup> of Section 13; AND that portion of the NE<sup>4</sup> of Section 14 lying northeasterly of the Naches River; ALL being with T. 14 N., R. 17 E.W.M., Yakima County.

Limitations Of Use: Parcel No. 17-14-03 43002 (Shareholder No. 16), which is 0.69 acres in size, uses both Kelley-Lowery and Wapatox Ditch Company water. The total water supply for this parcel shall not exceed the amount of water which can be beneficially used on the number of acres listed.

- Priority Date
- Source
- Purpose of Use
- Period of Use
- Instantaneous Quantity & Annual Quantity
- Point of Diversion/Withdrawal
- Place of Use
- Provisions

# Priority Date



# Priority Date

## ■ Priority Date – Instream Flow Rule

- Methow River – December 28, 1976
- Okanogan River – July 14, 1976
- Columbia River – June 24, 1980
- Yakima Basin\* – May 10, 1905

## ■ Locally Senior

- Seasonal Reliability
  - Drought

### Methow River at Winthrop, WA - 12448500

January 1, 2015 - December 31, 2015

Discharge, cubic feet per second



# Period of Use

## Seasonal



## Continuous



# Water Right Quantities

- Instantaneous Quantity ( $Q_i$ )
- Annual Quantity ( $Q_a$ )

Subbasin:	09 Wilson-Naneum
Source:	Spring Creek/Yakima River
Use:	Irrigation of 23 acres and stock water
Period of Use:	April 1 through October 15
Quantity:	1.39 cubic feet per second, 386 acre-feet per year for irrigation, 6 acre-feet per year for stock watering
Priority Date:	<b>May 24, 1884</b>

# Consumptive Use

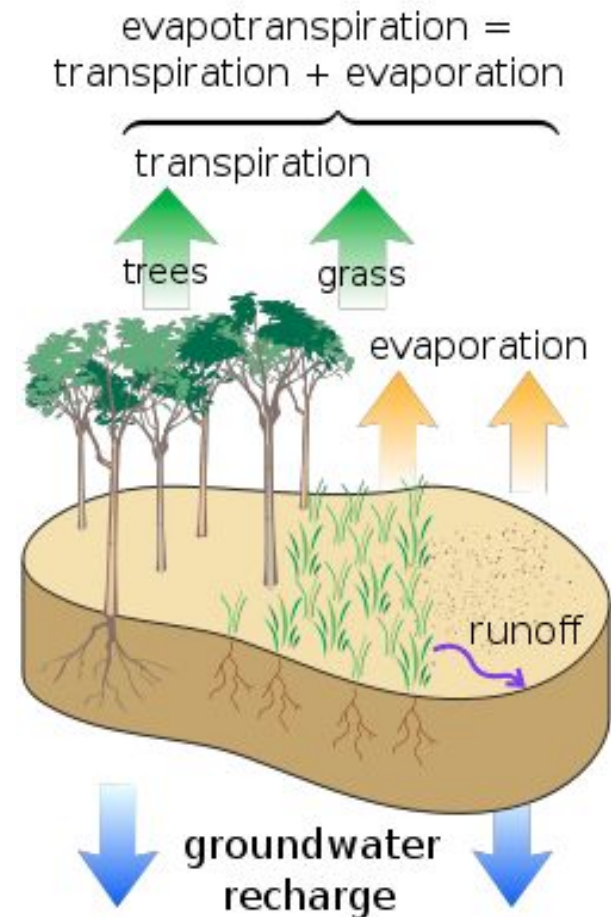
## Consumptive Use (CU) –

Consumptive use includes crop evapotranspiration, and water evaporated during irrigation application (e.g., spray, canopy, and wind losses).

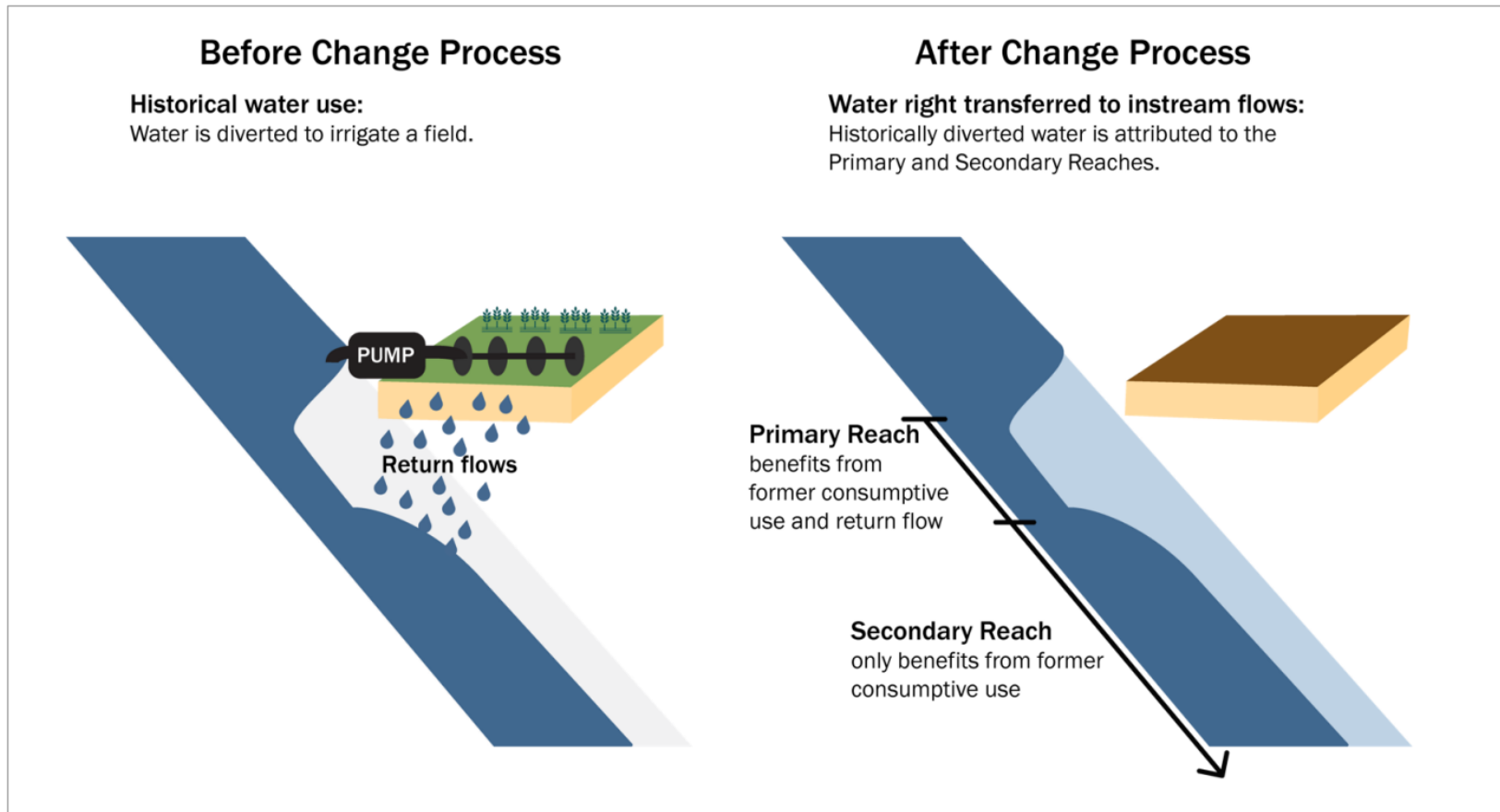
*“...means use of water whereby there is a diminishment of the water source.”*

$$\%CU = Ea + \%Evap$$

$$CU = TIR * \%CU$$



# Consumptive Use



# Total vs. Consumptive Use

Use: Irrigation of 23 acres and stock water

Period of Use: April 1 through October 15

Quantity: 1.39 cubic feet per second, 386 acre-feet per year for irrigation, 6 acre-feet per year for stock watering

Priority Date: **May 24, 1884**

**Table 2 – Total Irrigation Requirement for Court Claim No. 02133**

	Unit	May	Jun	Jul	Aug	Sep	Oct	Total
TIR	acre ft.	30.11	72.15	85.46	72.76	41.45	5.95	307.88
	cfs	0.49	1.21	1.39	1.18	0.70	0.10	-
On-Farm	acre ft.	7.47	17.89	21.20	18.05	10.28	1.47	76.38
	cfs	0.12	0.30	0.34	0.29	0.17	0.02	-

**Table 8 – Consumptive Use for Court Claim No. 02133 (Secondary Reach)**

	Unit	May	Jun	Jul	Aug	Sep	Oct	Total
Qa	acre ft.	6.35	15.21	18.02	15.34	8.74	1.25	64.90
Average Qi	cfs	0.10	0.26	0.29	0.25	0.15	0.02	-

# Policies and Procedures

## **POL 1210 – Evaluation of Changes to Enable Irrigation of Additional Acreage or the Addition of New Purposes of Use to Existing Water Rights**

*“...a water right may be approved if...there will be no increase in Annual Consumptive Quantity (ACQ); there will be no impairment of other water rights.”*

## **PRO 1210 – Calculating and Applying the Annual Consumptive Quantity (ACQ)**

*“...required to determine that the ACQ under a water right proposed for a change to add acreage to an irrigation right or to add purposes of use is no greater after the change.”*

## **GUID 1210 – Determining Irrigation Efficiency and Consumptive Use**

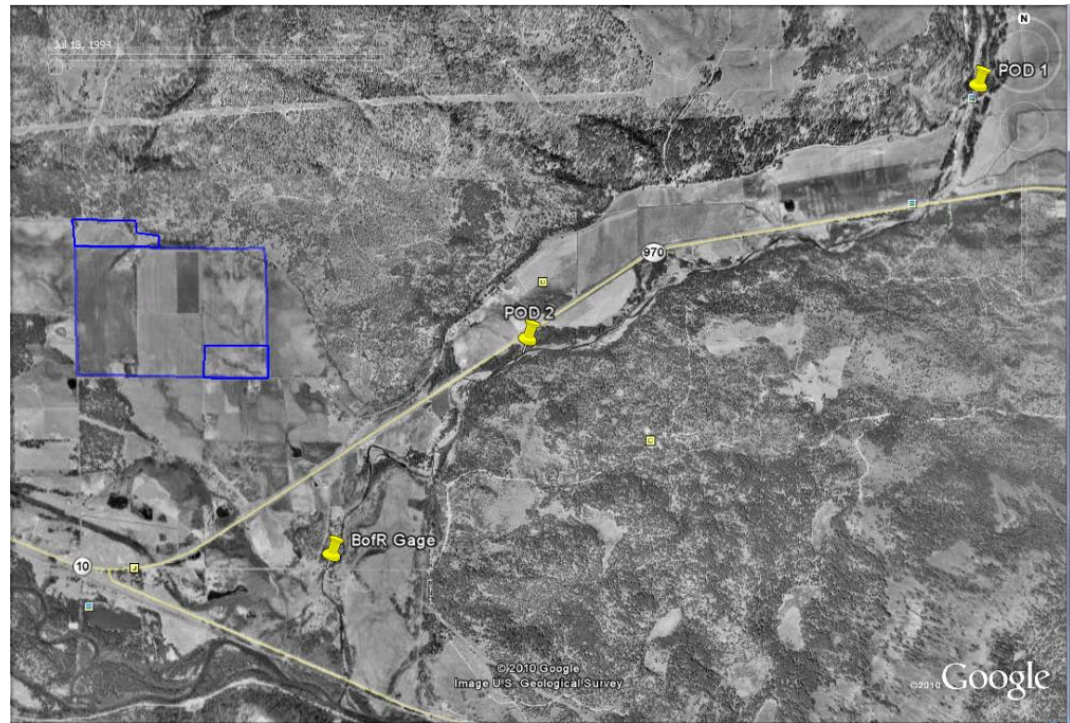
*“...provide guidance to water resource staff for: 1) Determining irrigation efficiency; and 2) Determining consumptive use associated with irrigation.”*

<https://ecology.wa.gov/Regulations-Permits/Plans-policies/Water-rights-dam-safety-policies-procedures-guidan>

# Point of Diversion/Withdrawal

- **Location, Location, Location**

- Mainstem
- Tributary



# Provisions

## Limitations on Water Use

The applicant shall only withdraw water under this authorization if water is flowing in the Methow River at the USGS Gaging Station No. 12447383. This information can be obtained by contacting Ecology's Central Region Office or from the USGS Real-time water data web site: <http://waterdata.usgs.gov/wa/nwis>.

**Attention:** Annual quantities are non-additive to Surface Water Permit Nos. S4-33061P and S4-30055P, during the period beginning October 1 and extending through to May 31, providing an alternate source of water supply.

This land may have a supplemental water right through the Kittitas Reclamation District, which is exercised when sufficient creek water is not available.

### **Wells, Well Logs, and Well Construction Standards**

All wells constructed in the state must meet the construction requirements of WAC 173-160 titled "Minimum Standards for the Construction and Maintenance of Wells" and RCW 18.104 titled "Water Well Construction." Installation and maintenance of an access port is required as described in WAC 173-160-291(3).

# Mitigation Suitability



# What is Mitigation?

*“Mitigation means measures that offset adverse effects on a water source to eliminate impairment and/or detriment of the public interest”*



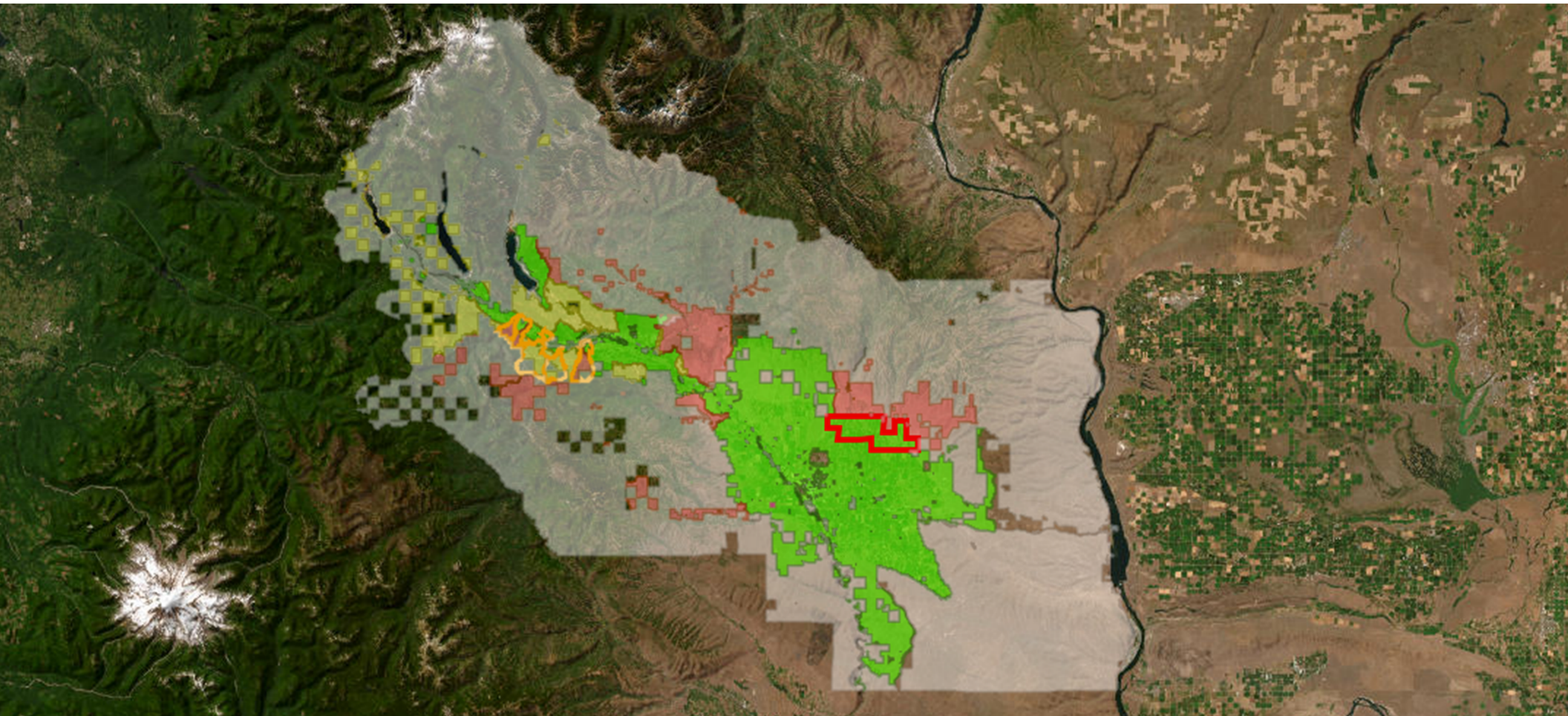
# What is Impairment?

- Senior water rights
- Instream Flows
- Native American Time Immemorial Water Rights
- ESA-listed species\*
- Water Quality (TMDL)\*
- Recency\*

\* Under the Public Interest test



# Mitigation Suitability – Kittitas County



A scenic landscape featuring a calm river in the foreground, a vineyard on a hillside in the middle ground, and a large, arid hill in the background under a cloudy sky. A green banner is overlaid across the middle of the image.

Questions?