



# MITIGATION: WA, ID, OR

May 9, 2025

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Senior Scientist



# WHY MITIGATE?

## Prior Appropriation Doctrine

1. First in time is first in right
2. Do no harm

*"If a right has not been beneficially used to its full extent . . . then issuance of a certificate of change, in the amount of the original right, could cause detriment or injury to other rights." OWL v. Twisp, 1997.*



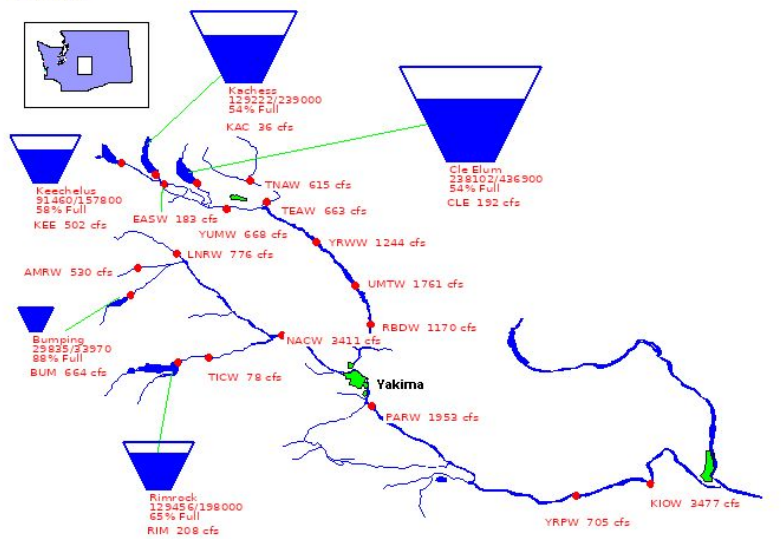
# WATER SCARCITY

- Over Allocation
- Climate Change
- ESA-listed species

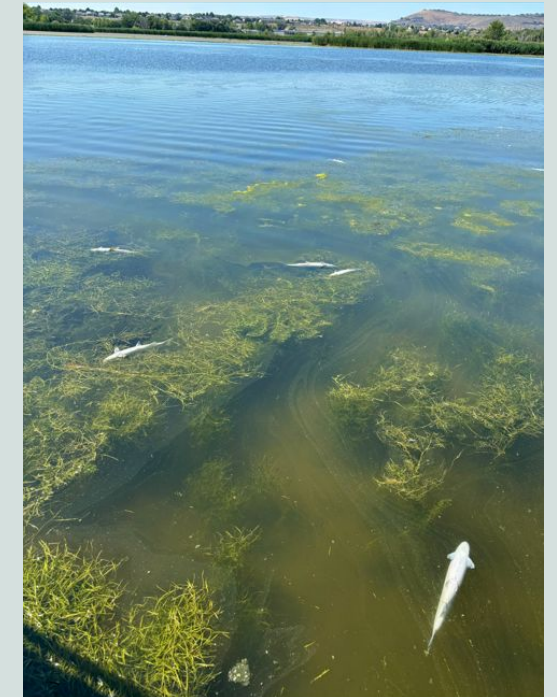
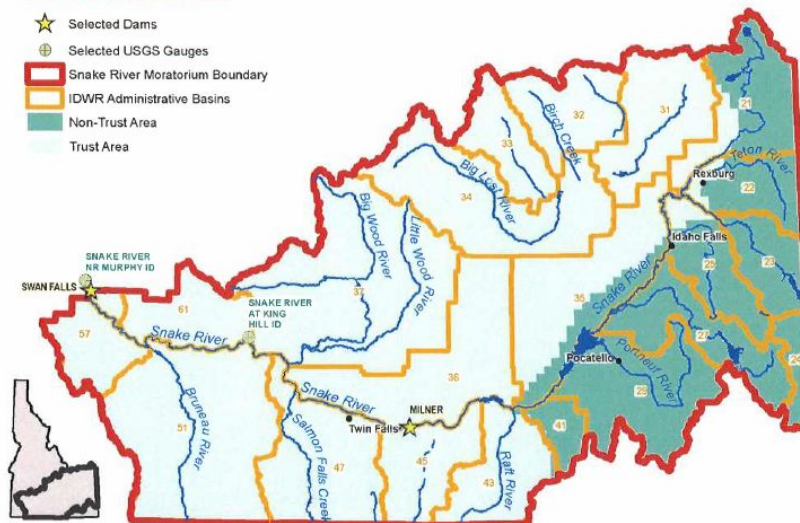
## Washington Drought Declaration and Advisory



05/06/2025

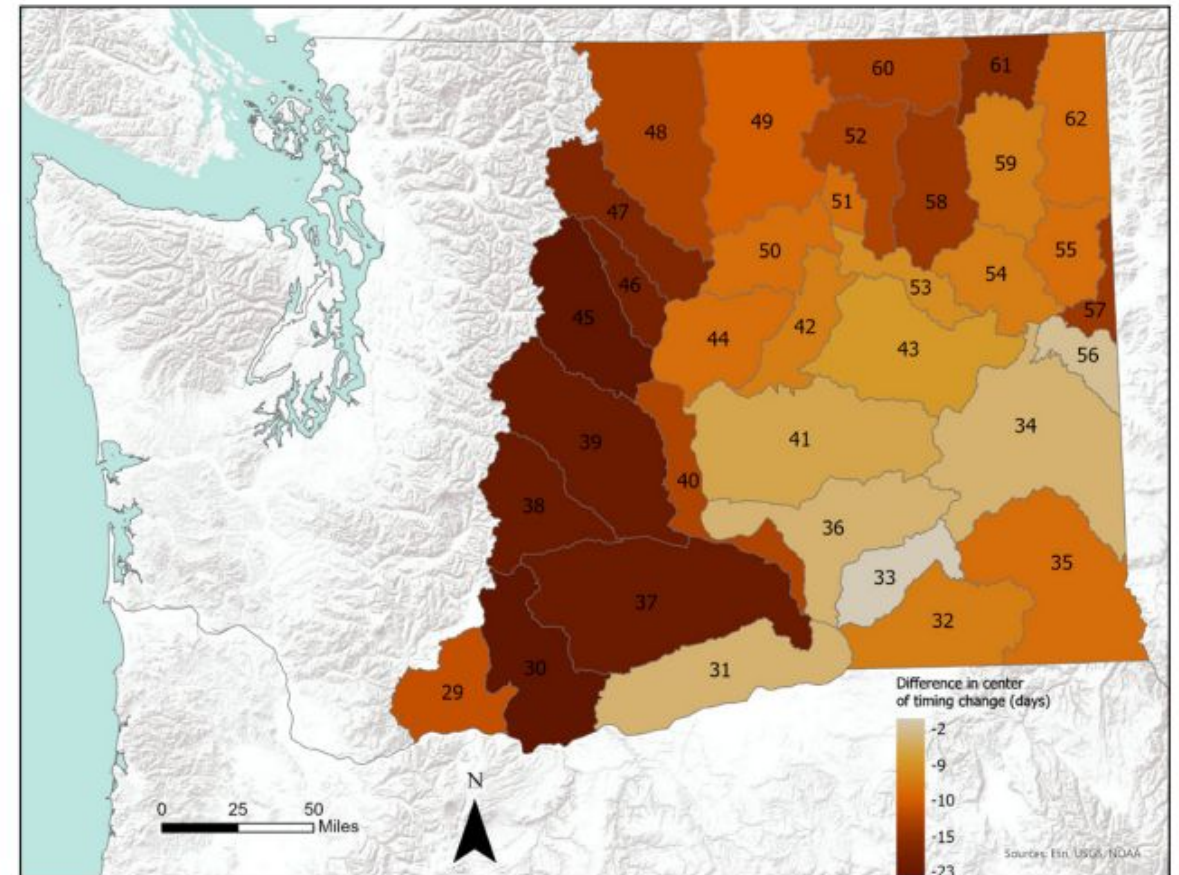


### Snake River Moratorium



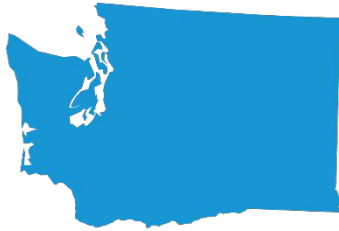
# CLIMATE CHANGE

## Ecology Supply and Demand Forecast



**Figure 18.** Changes in the timing of water supply expected during high flow years (80th percentile) by 2040. We quantified the shift based on the change, in number of days, of the center of timing of supply from the historical (1986-2015) to the forecast (2040) period (using the median of 34 climate change scenarios). Note that one value is given for WRIAs 37, 38 and 39, and one value is given for WRIAs 44 and 50, reflecting the sum of changes in those groups of WRIAs.

# WHO MANAGES WATER?



**Washington**

Department of  
Ecology (Ecology)



**Oregon**

Water Resources  
Department  
(OWRD)



**Idaho**

Department of  
Water Resources  
(IDWR)

# WASHINGTON



# WHAT IS MITIGATION?

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



# WHY DO WE MITIGATE?

- **RCW 90.03.250 through 90.03.340**  
Appropriation procedure; Four-part test
- **RCW 90.44.030**  
Chapter not to affect surface water rights.  
“...any underground water is part of or tributary to the source of any stream or lake”
- **RCW 90.54.020(9)**  
Full recognition shall be given in the administration of water allocation and use programs to the natural interrelationships of surface and ground-waters
- **WAC 173-5XX**  
Instream Flow Rules, Groundwater Management Subareas, Federal Flow Targets\*

# WHY DO WE MITIGATE?

- **Postema v. PCHB (2000)**

Groundwater permits may be denied based on impacts on instream flows

- **Swinomish v. Ecology (2013)**

Instream flow rights are entitled to impairment protection



- **Foster v. Yelm (2015)**

Stream depletion must be mitigated with in-kind and in-time mitigation

- **Hirst v. W. Wash. Growth Mgmt. Hearings Board (2016)**

GMA requires consideration of exempt well impacts on instream flows

- **US Golden Eagle (2021)**

Valid municipal water right not suitable for mitigation

# WHAT IS MITIGATION?

## ▪ In-Kind (water for water)

- Acquisition of pre-rule water rights (non-interruptible) that have proven extent and validity
- In-time, In-kind, In-place

## ▪ Out-of-Kind (impairment)

- Restoration of instream and riparian habitat
- Subject to NEB and Foster Pilot Studies (under RCW 90.94)

# MITIGATING WATER RIGHT

## ■ Priority Date

- Pre-Rule

Use:	Irrigation of 127 acres and stock water
Period of Use:	April 1 through October 15 for irrigation, continuously for stock water
Quantity:	6 cubic feet per second, 978.15 acre-feet per year for on-farm irrigation and 12 acre-feet per year for stock watering
Priority Date:	<b>June 30, 1889</b>

## ■ Extent and Validity

- Paper vs. Legal
- Total vs. Consumptive Use

Table 10 – Consumptive Use for Court Claim Nos. 02136 (Secondary Reach)

	Unit	May	Jun	Jul	Aug	Sep	Oct	Total
Qa	acre ft.	20.16	44.55	61.62	48.72	27.75	3.98	206.78
Average Qi	cfs	0.42	0.95	1.26	1.01	0.59	0.08	

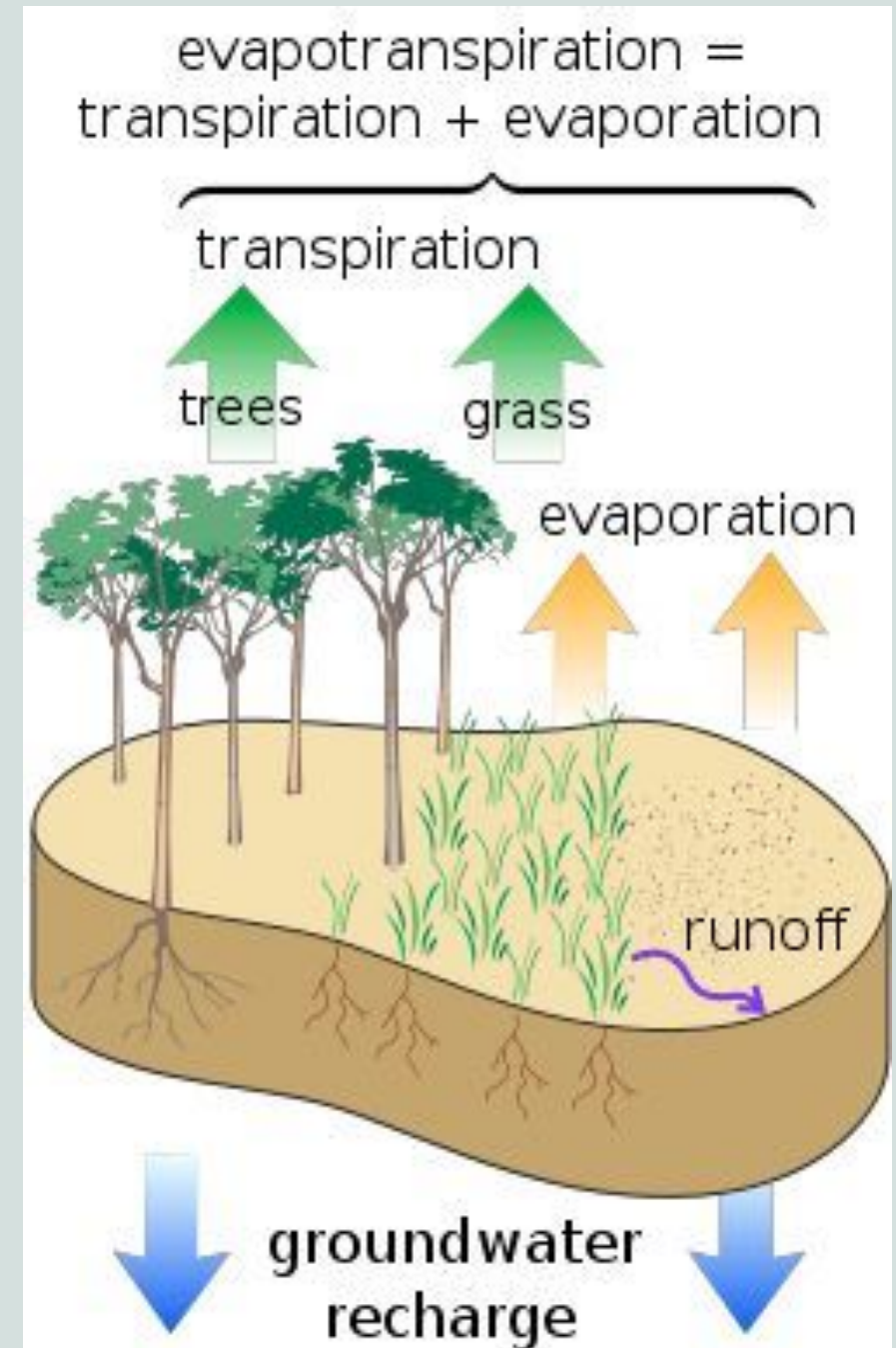
# MITIGATION

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

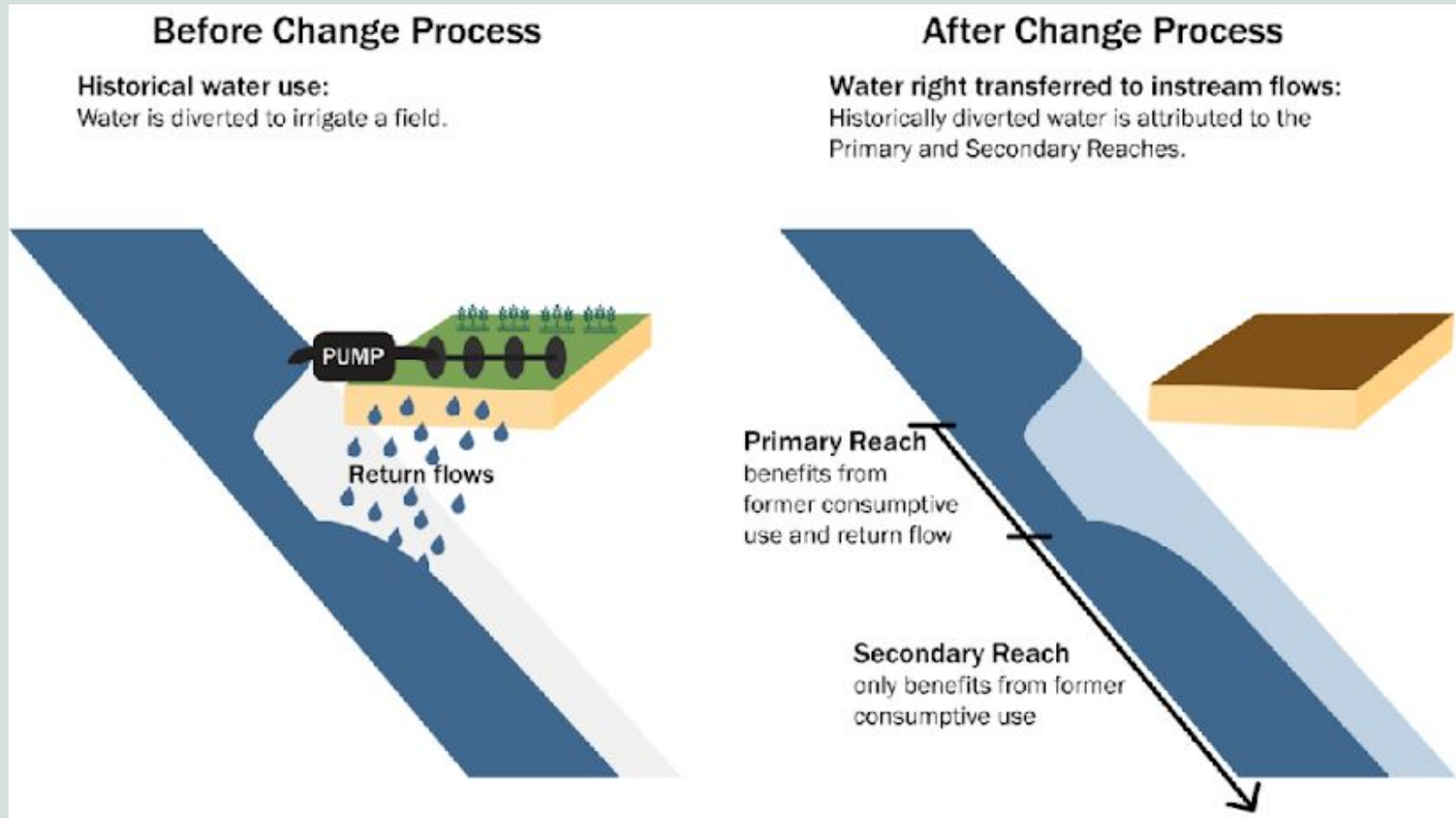
*“...means use of water whereby there is a diminishment of the water source.”*

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

$$CU = TIR * \%CU$$



# CONSUMPTIVE USE



# MITIGATING WATER RIGHT

- **Location**
  - Mainstem vs. Tributary
- **Season of Use**
  - Seasonal or Year-Round
- **Seasonal Reliability**
  - Local Availability

When flows in Taneum Creek are less than 98.00 cubic feet per second (cfs), quantities available in trust for instream flow are limited to 0.220 percent of the creek flow as measured at the Brain Ranch gage (Ecology ID 39P080).

# HOW DO WE MITIGATE?



# WATER RIGHT CHANGE/TRANSFER

- **Change Application Process**
- **Processing Methods**
  - Ecology-led Processing
  - County Water Conservancy Boards
  - Cost-Reimbursement Program
  - Front-Loaded Application Processing
- **Typically about a year+ to complete process**
- **Processing costs on the order of \$15k to \$20k+**



STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**

Central Region Office

1250 West Alder St., Union Gap, WA 98903-0009 • 509-575-2490

# WATER RIGHT CHANGE/TRANSFER

- Impairment
- Public Interest
- Perfected or Inchoate
- Enlargement
- Season of Use Considerations
- Same Source of Water Supply
- Surface to Ground Transfers
- Annual Consumptive Use (ACQ)

*RCW 90.03.380(c) For purposes of this section, "annual consumptive quantity" means the estimated or actual annual amount of water diverted pursuant to the water right, reduced by the estimated annual amount of return flows, averaged over the two years of greatest use within the most recent five-year period of continuous beneficial use of the water right.*

# 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.

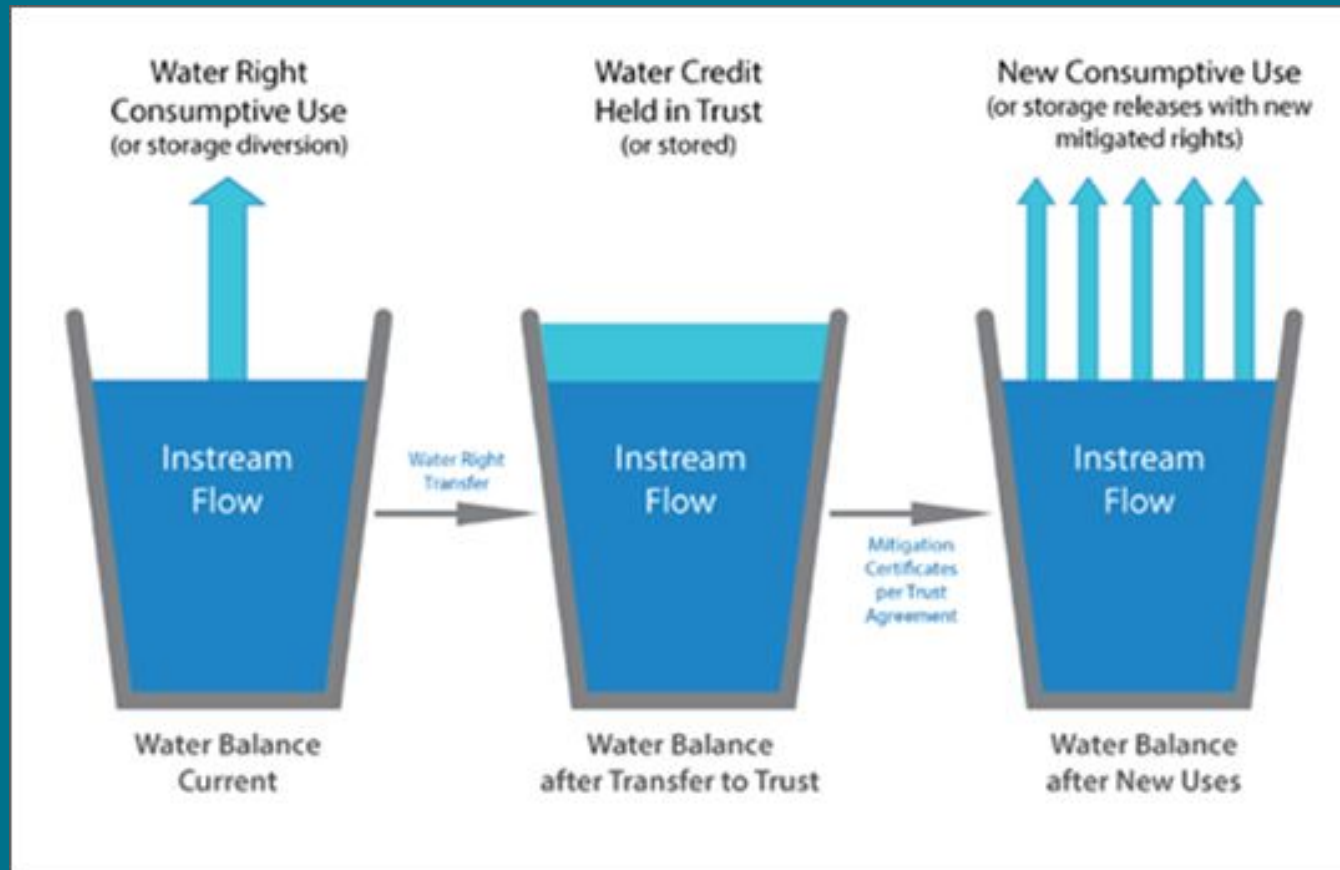
### **Wells, Well Logs, and Well Construction Standards**

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).

**"This authorization to use public waters of the state is classified as a Family Farm Permit in accordance with Initiative Measure No. 59. This means the land being irrigated under this authorization shall comply with the following definition: Family Farm -- a geographic area including not more than two thousand acres of irrigated agricultural lands, whether contiguous or noncontiguous, the controlling interest in which is held by a person having a controlling interest in no more than two thousand acres of irrigated agricultural lands in the State of Washington which are irrigated under rights acquired after December 8, 1977. Furthermore, the land being irrigated under this authorization must continue to conform to the definition of a family farm."**

# TRUST WATER RIGHT PROGRAM

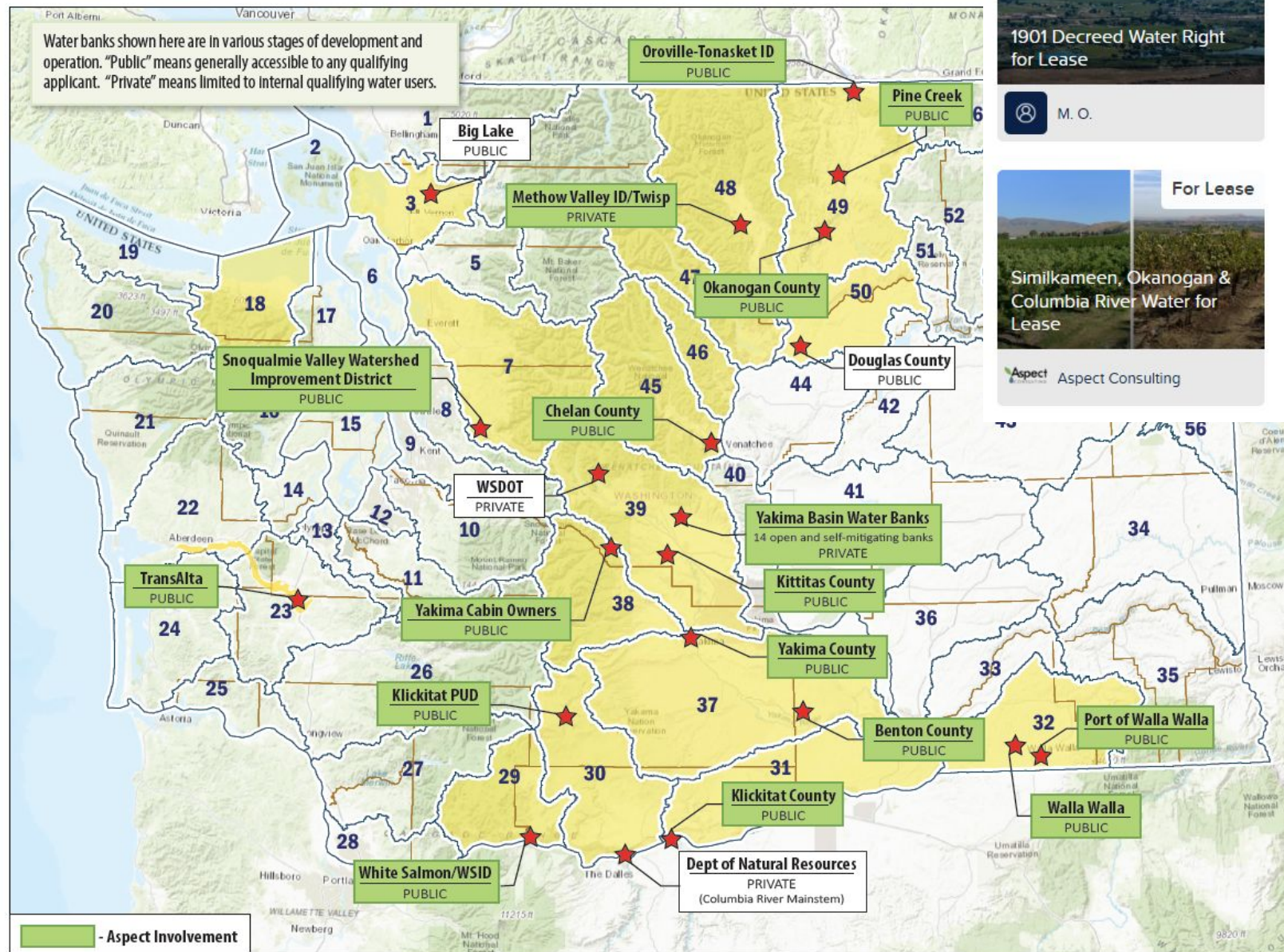
*Water banks redistribute water right authority between sellers and buyers...*



# TRUST WATER RIGHT PROGRAM

- **RCW 90.42 (Statewide) and RCW 90.38 (Yakima Basin)**
- **Relinquishment Risk is Lower**
  - RCW 90.14.140
- **Trust Water Right Agreement**
- **No Loss of Priority**
  - RCW 90.03.340
- **Permitting Certainty**

# WATER BANKS



**For Lease**

1901 Decreed Water Right for Lease

M. O.

**Water Bank**

TransAlta Skookumchuck/Chehalis River Water Bank

Aspect Consulting

**For Sale**

Groundwater for Sale - Bourne Water Bank

Aspect Consulting

**For Lease**

Similkameen, Okanogan & Columbia River Water for Lease

Aspect Consulting

**Water Bank**

Bourne Water Bank, LLC

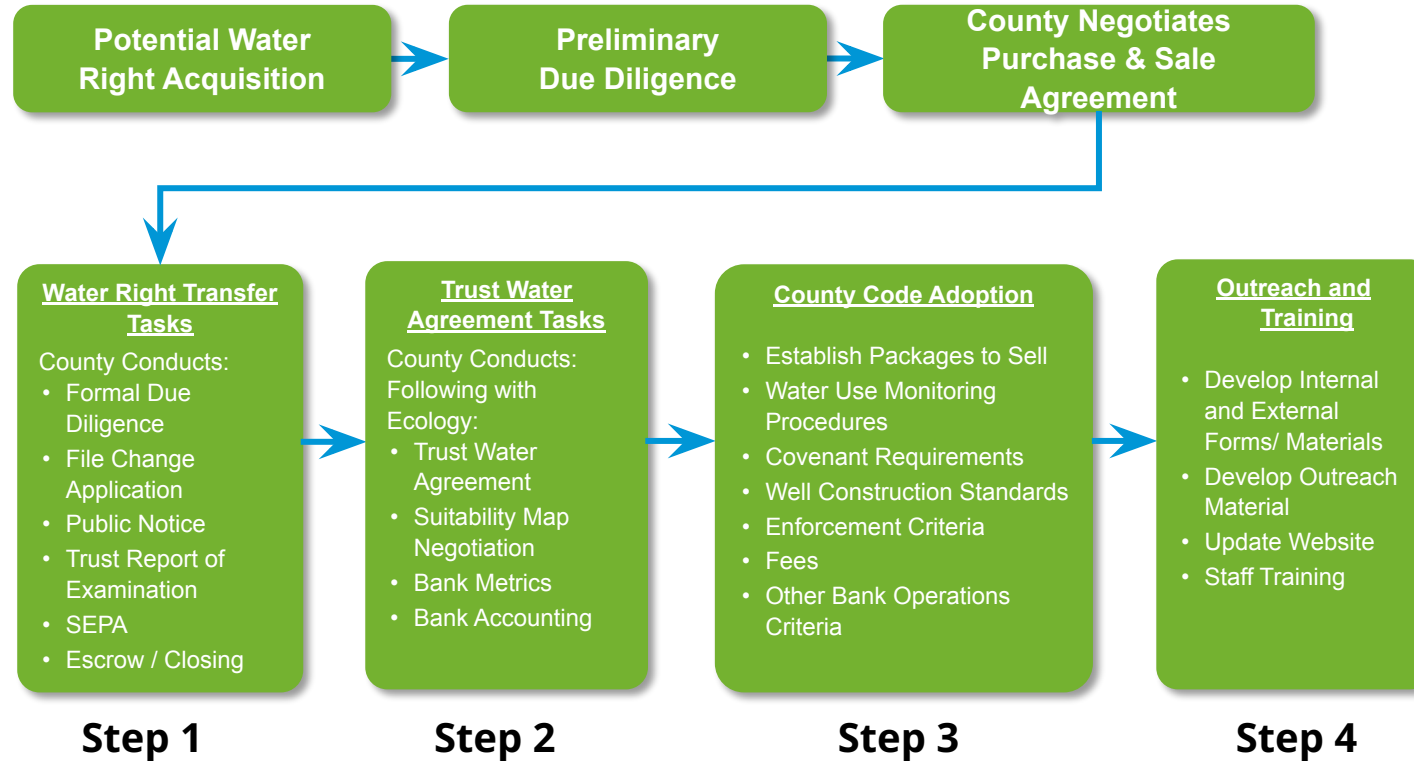
Aspect Consulting

**Water Bank**

Oroville-Tonasket Irrigation District (OTID) Water Bank

Aspect Consulting

# WATER BANKS – THE PROCESS



# SURFACE STORAGE



- **Roosevelt and Sullivan Water Banks (Upper Columbia)**
  - 25,000 af; 9,333 af
- **Springwood Reservoir (Yakima)**
  - Up to 100,000 acre-feet
  - Fish Passage
- **Switzler Reservoir (McNary Pool)**
  - 44,000 acre-feet
  - Interruptible, Irrigation, Municipal

# GROUNDWATER STORAGE

- **Aquifer Storage and Recovery**
  - Cities of Yakima, Moxee, Prosser, Roza Irrigation District
- **Managed Aquifer Recharge**
  - Taneum Recharge (KRD), Toppenish Alluvial Fan (Yakima Nation), Kennewick Irrigation District



# **BASIN-SPECIFIC REGULATIONS**



# PRIORITY DATES

- **Priority Date – Instream Flow Rule**

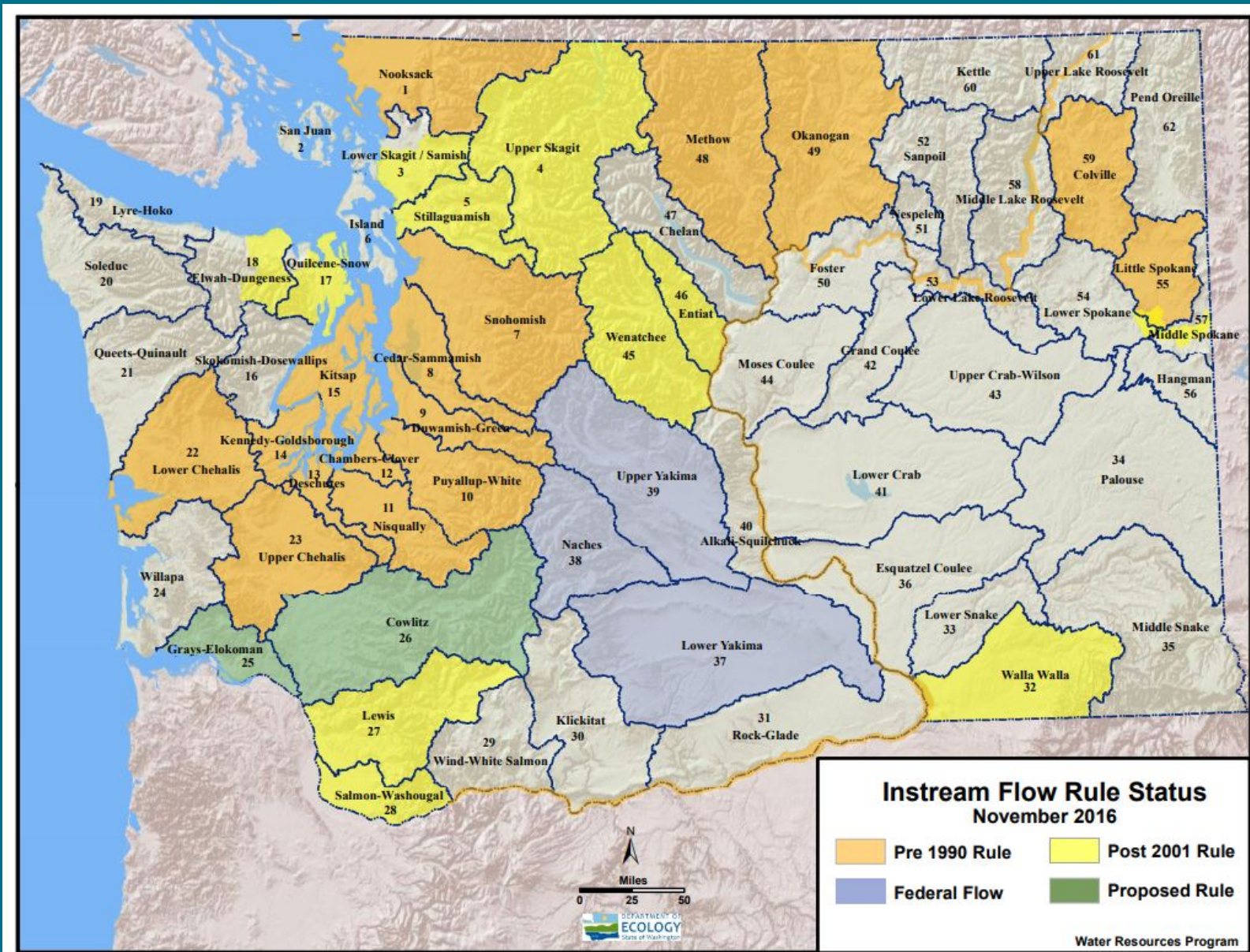
- Methow River – December 28, 1976
- Okanogan River – July 14, 1976
- Columbia River – June 24, 1980
- Yakima Basin\* – May 10, 1905
- Cowlitz River - Pending

- **Locally Senior**

- Seasonal Reliability
  - Drought



# WHAT MAKES THE TRIBUTARY BASINS UNIQUE?



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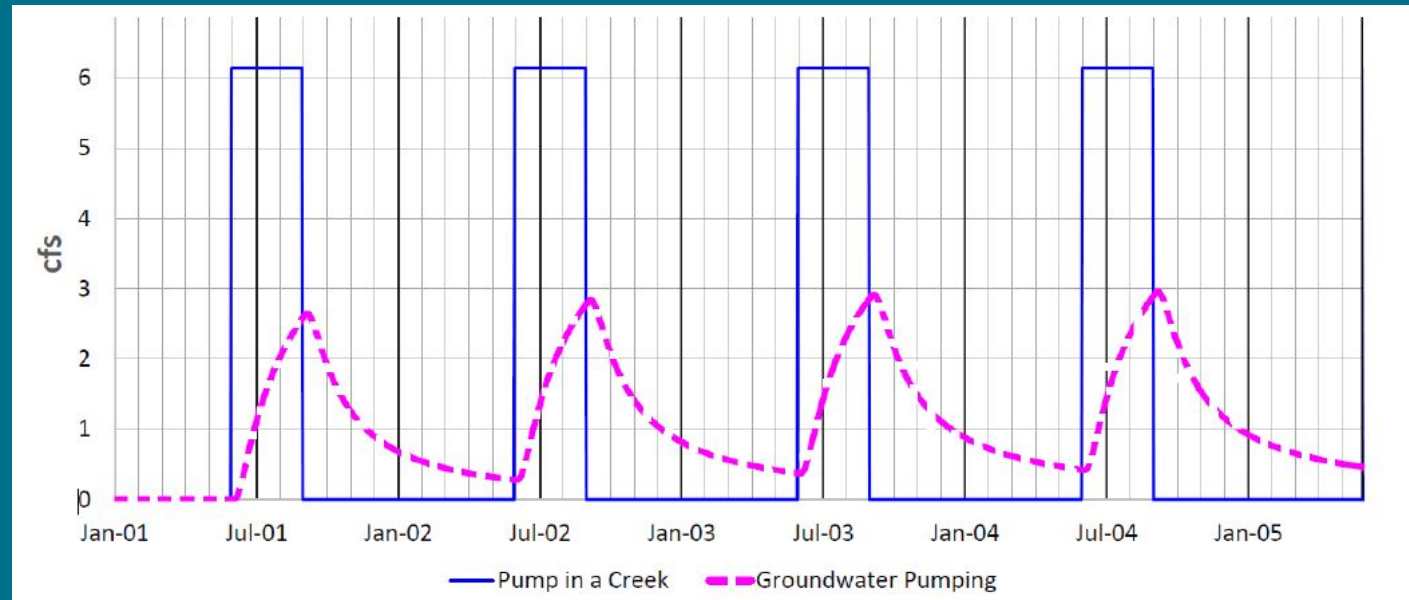


- **Minimum Instream Flows**
  - Priority Date
  - Control Points
  - Seasonal or Year-round Closures
- **Seasonal Curtailment**
- **Additional Considerations**
  - Reservations
  - Bypass Reaches

# FOCUS ON: FOSTER V. ECOLOGY

*“Mitigation must be in time, in kind, and in place”*

- Ecology’s focus sheet (Publication 20-11-083)
- Implications:
  - Water Right Change Applications
  - Mitigation Packages
  - Water Banks
  - Overriding Consideration of Public Interest
  - Streamflow Restoration Projects



# WHAT MAKES THE YAKIMA BASIN UNIQUE?



## YAKIMA BASIN INTEGRATED PLAN

Building a Future for Water, Wildlife,  
and Working Lands

- **Use of the Trust Water Right Program**
  - Mitigation Reliability
  - Consumptive Use Equivalents
- **Availability Determination**
  - Legal and Physical Availability
- **Local Impairment**
  - Tributary Flows
  - USBR-Ecology Exchange Contract
- **Water Transfer Working Group**

# WHAT MAKES THE YAKIMA BASIN UNIQUE?

## Water Transfer Working Group

- *Washington State Department of Ecology*
- *Yakama Nation*
- *Bureau of Reclamation*
- *Washington State Department of Fish and Wildlife*
- *Other Major Claimants (Irrigators, Municipalities)*

## The “Box” Checklist

- *Provides Evaluation Criteria*
- *“...no adverse change to instream flow”*

WTWG “Box” Checklist	YES	NO
<b>1. Validity</b>		
Is there continued beneficial use history sufficient to ensure that the right has not been relinquished or abandoned?		
Is it free of any “cloud” or claim on the title of the water right?		
<b>2. Water Budget Neutrality</b>		
Is the transfer water budget neutral?		
Is the transfer TWSA (Total Water Supply Available) neutral?		
Does the transfer of the right result in equal or less consumptive use?		
Can the transfer be made without detriment or injury to existing rights? (RCW 90.03.380(1))		
<b>3. Timing and Availability</b>		
Temporary Transfers: If a seasonal transfer, can the transfer be implemented in the time remaining in the season?		
Permanent Transfers: Is there a map of the fallowed land or discontinued use and can it be confirmed?		
<b>4. Impairment of instream flow</b>		
Does the transfer cause no adverse change to instream flows?		
Is all the water accounted for at Parker and Prosser (if applicable)?		
<b>5. Operational Considerations</b>		
If the transfer relies on space in existing Reclamation storage, is storage capacity available?		
Can the transfer be “bucketed”, with different rate and timing, without adverse impacts on other users and fish and other aquatic life?		
Does the transfer have no impermissible impact on Yakima Project operations?		
<b>6. For Transfers Between Surface Water and Ground Water</b>		
Can the hydrologic impacts of the transfer be accurately evaluated?		
<b>7. Other considerations</b>		
Is the transfer in agreement with public policy?		
Is the transfer free of unacceptable secondary effects – economic, environmental, or cultural?		
Does the transfer not rely on return flow?		

*Revised Final February 19, 2009*

# WHAT MAKES THE YAKIMA BASIN UNIQUE?

- Senior water rights – *Acquavella Adjudication*
- Instream Flows – *Total Water Supply Available*
- Native American Time Immemorial Water Rights – *Yakama Indian Nation*
- ESA-listed species – *Major Tributary to the Columbia River*
- Storage – *Agriculture; Retiming*

*These factors contribute to a high degree of water portability via collaboration with Basin Stakeholders.*

# WHAT MAKES THE COLUMBIA RIVER UNIQUE?

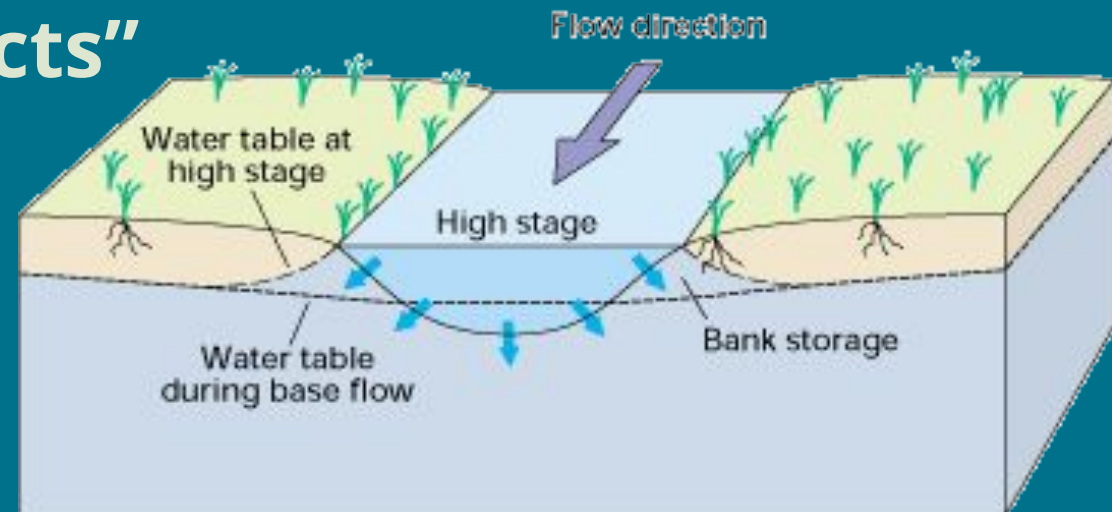
## ■ Chapter 173-563 WAC

- *(4) The instream flows...do not apply to any application for water from the main stem Columbia River on which a decision is made by the department of ecology on or after July 27, 1997. Any water right application considered for approval or denial after that date will be evaluated for possible impacts on fish and existing water rights. The department will consult with appropriate local, state, and federal agencies and Indian tribes in making this evaluation. Any permit which is then approved for the use of such waters will be, if deemed necessary, subjected to instream flow protection or mitigation conditions determined on a case-by-case basis through the evaluation conducted with the agencies and tribes.*

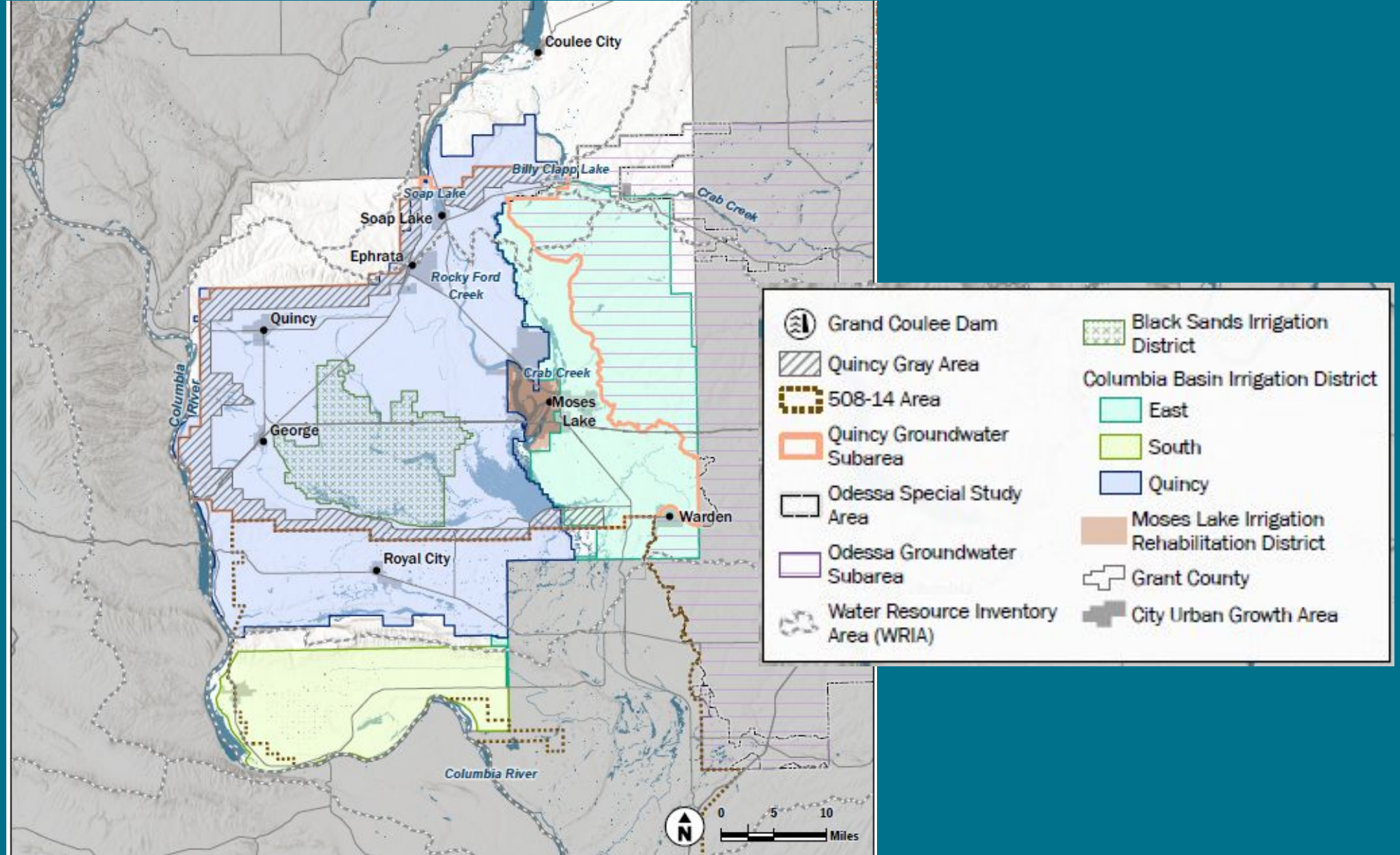
## ■ “Significant and direct impacts”

WAC 173-563-020(1)

## ■ Bank Storage



# WHAT MAKES THE COLUMBIA BASIN UNIQUE?



# WHAT MAKES THE COLUMBIA RIVER UNIQUE?

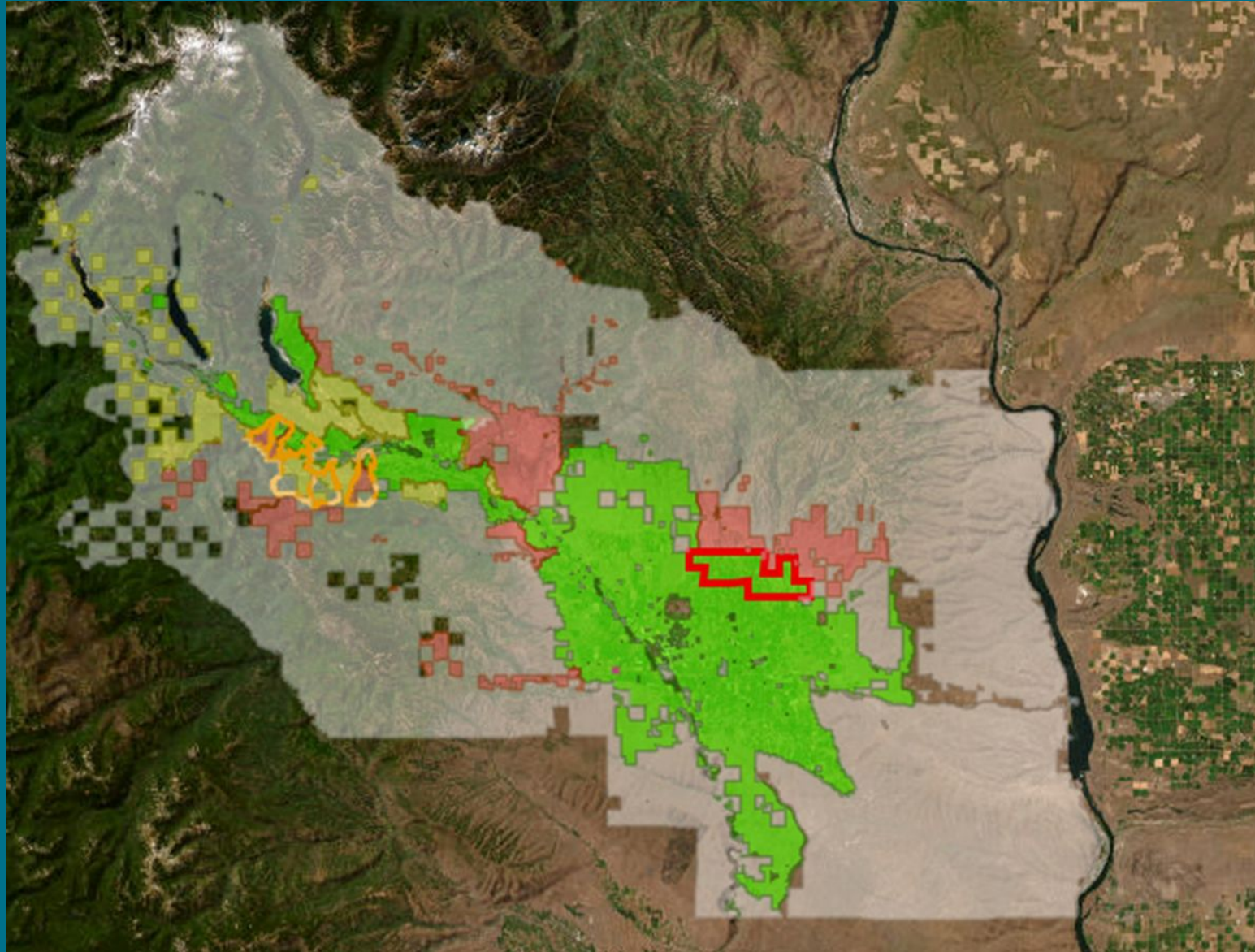
- **Columbia Basin Project** – *Large amount of imported surface water. Over appropriation of natural groundwater. Commingling of natural and artificially stored groundwaters.*
- **Chapter 173-130A WAC** – *Odessa Groundwater Subarea Management Policy*
- **Chapter 173-134A WAC** – *Quincy Groundwater Subarea Management Policy*
- **Chapter 508-14 WAC** – *Columbia Basin Project - Groundwater*

***These factors contribute to increased management (and permitting) of groundwater resources.***

# MITIGATION SUITABILITY



# MITIGATION SUITABILITY – KITTITAS COUNTY



# IDAHO



# IDAHO

- **Similarities to WA:**

- Prior Appropriation Doctrine
- Regulatory structure/themes
- Conjunctive management of SW/GW

- **Differences from WA:**

- Statewide adjudication enables management

- **Uniquely ID:**

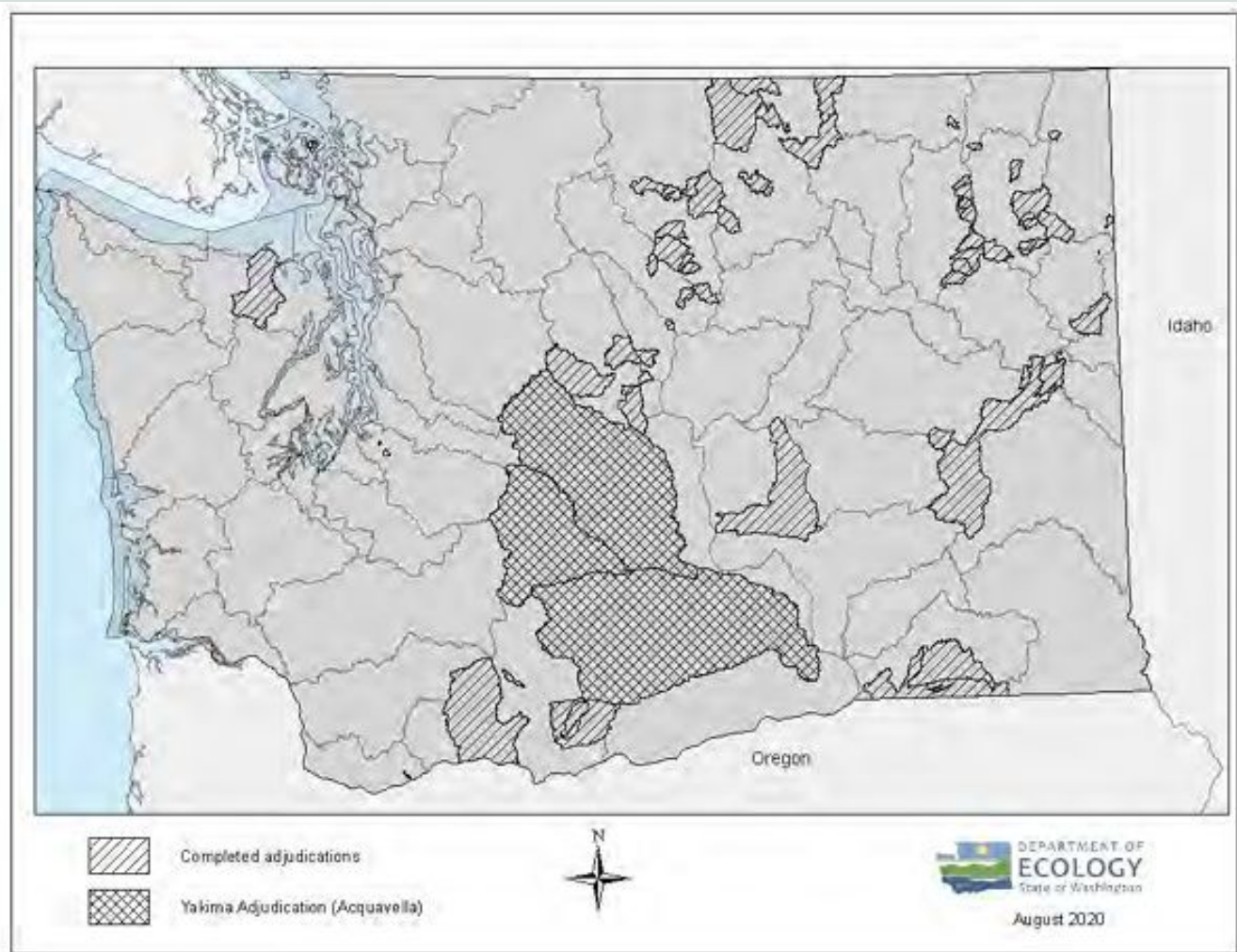
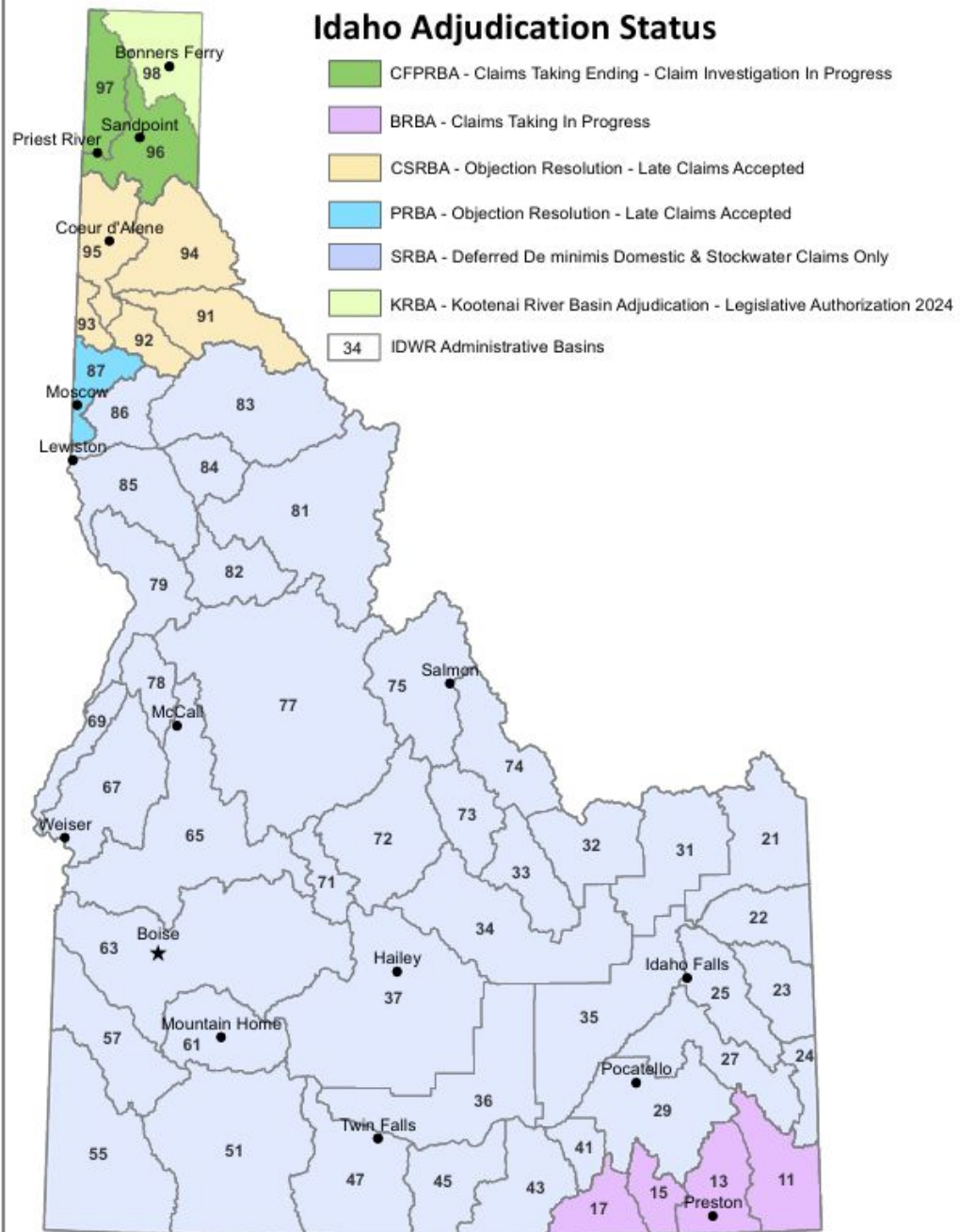
- State-sponsored water banking
- SWC Delivery Call and one related mitigation plan in ESPA



# STATEWIDE ADJUDICATION



## Idaho Adjudication Status



# IDAHO WATER SUPPLY BANK



# IDAHO WATER SUPPLY BANK

- **Water Banking legislation** (Idaho Code 42-1761 to 42-1766)
- **Two exchange markets:**
  - **Board's Bank** (statewide program): exchange of natural flow water rights (surface and ground water) and some privately held storage water rights
  - **Local Rental Pools** (5 total): water stored in federal reservoirs (e.g., Water District 1 - Upper Snake River)

# BOARD'S BANK

- **Governed by IWRB**
- **Administered by IDWR**
- **Lease duration variable: 1 year – indefinite**
- **Rental duration variable: generally 1 year**
- **IWRB approval required for rental >5 years**

# LOCAL RENTAL POOL

- IWRB appoints a local committee
- IWRB and IDWR Director approve rental procedures and prices adopted by local committee
- Local committee manages rentals
- High volume of water exchanged

# BOARD'S BANK

## Water Supply Bank Calendar

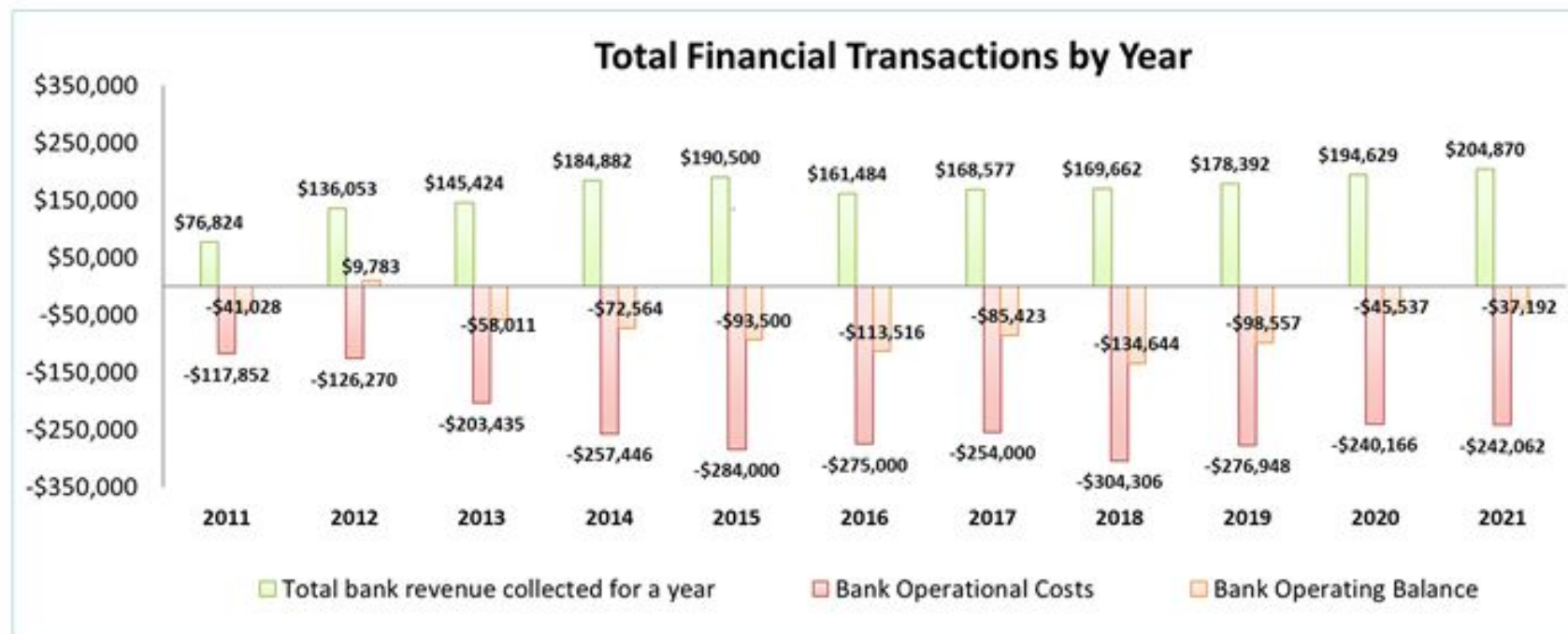
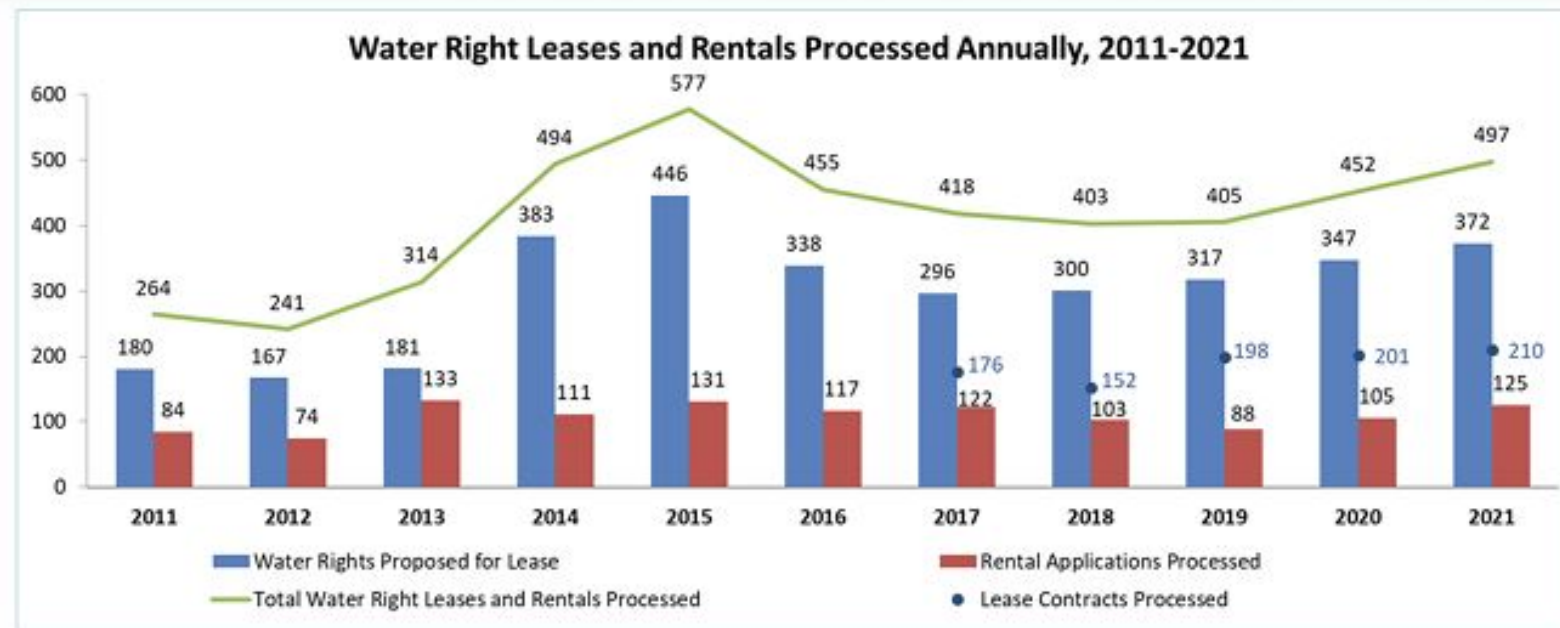
Month	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
Season	Summer			Fall			Winter			Spring		
Process Rental Proposals	Standard Priority					High Priority					Standard Priority	
Process Lease Proposals	Standard Priority			High Priority	Medium Priority						Standard Priority	
Request Rental Fees					Standard Priority							
Cancel Unpaid Rentals								Standard Priority				
Issue Lessor Payments				High Priority								
Process Lease Releases	Standard P...	High Priority			Standard Priority							
Expiration Reminders		Standard Priority										
Close Expired Leases							Standard Priority					
Close Expired Rentals							Standard Priority					

# BOARD'S BANK

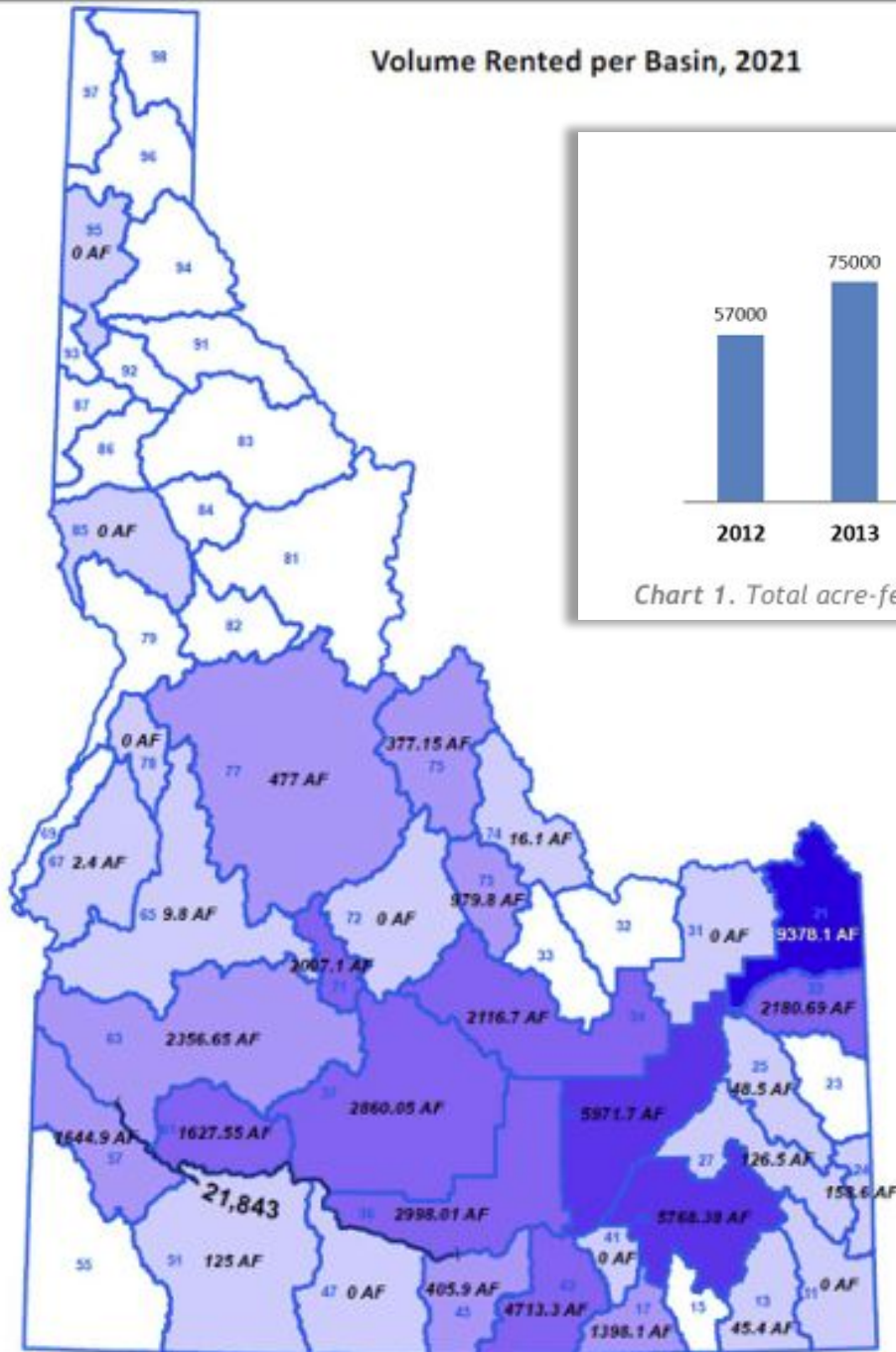
## Set price for rentals:

- 2012: \$14/af
- 2013-2017: \$17/af
- 2018-2022: \$20/af
- 2023-2024: \$23/af
- 2025: \$33/af





Volume Rented per Basin, 2021



Rented Volume by Year (AF)

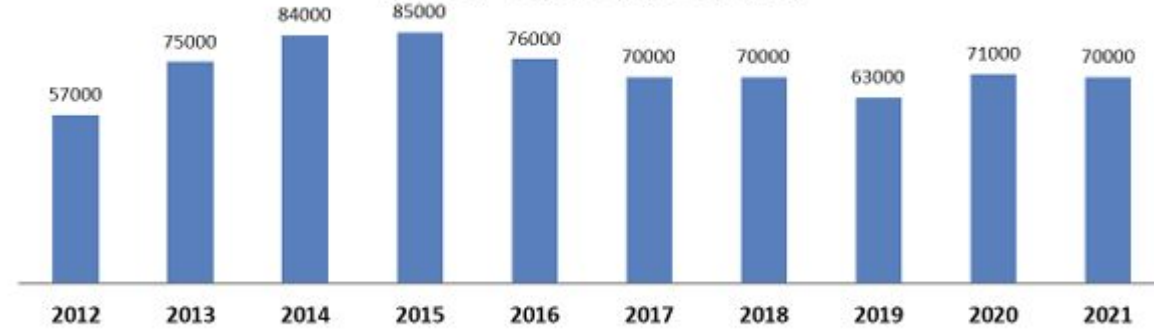
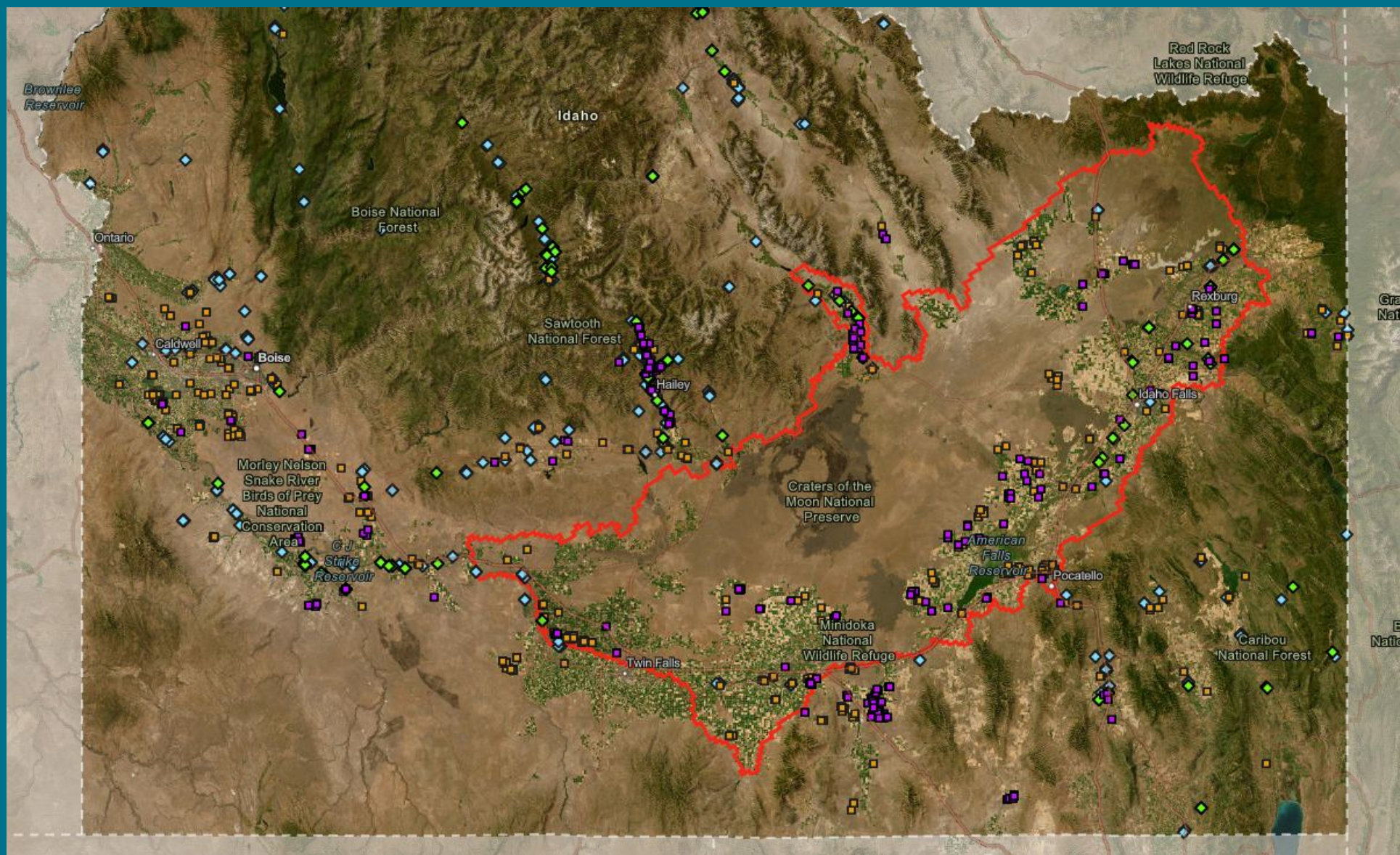


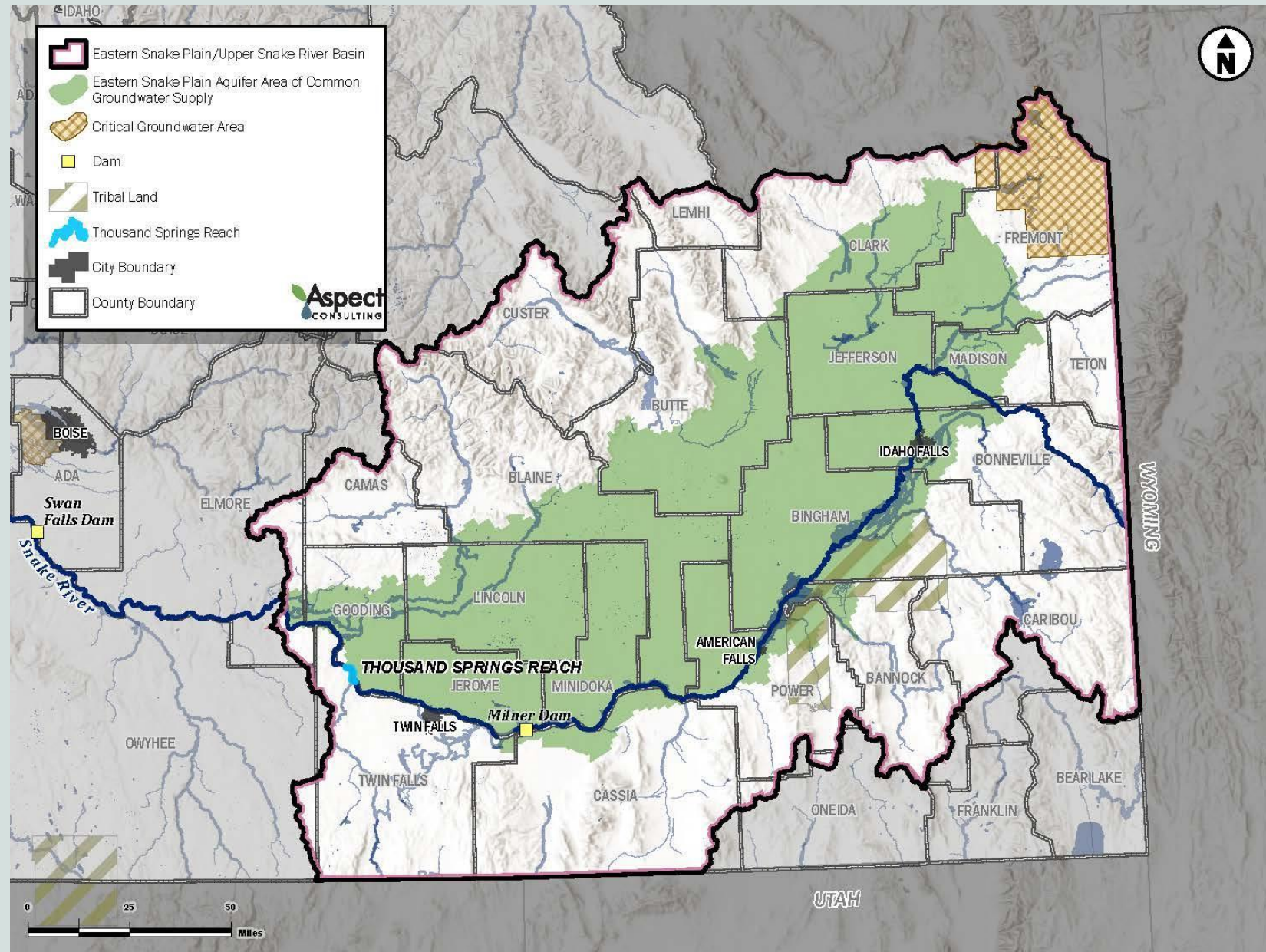
Chart 1. Total acre-feet rented by year, 2012-2021



# UPPER SNAKE WATER SUPPLY ISSUES – Mitigate or Curtail



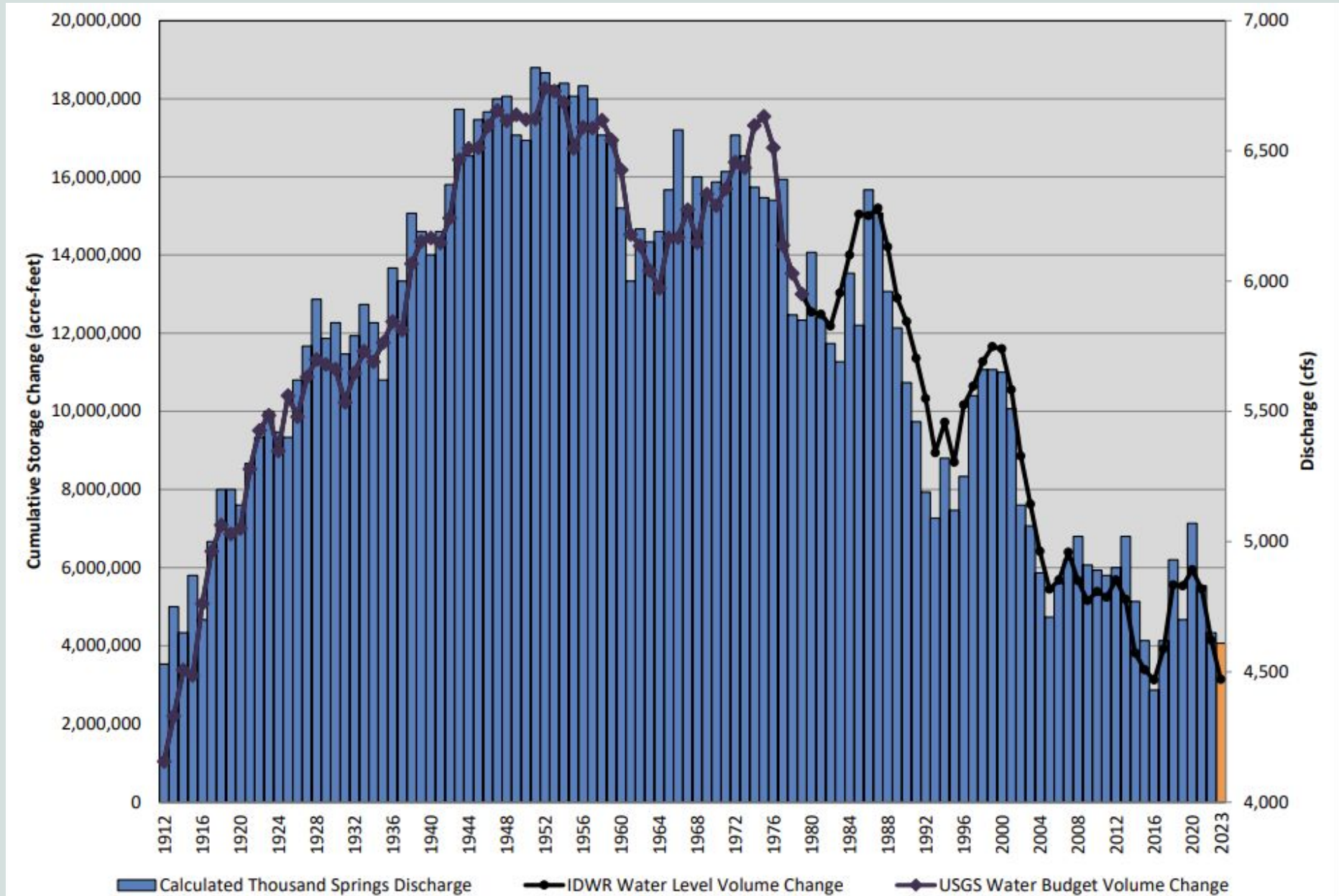
# UPPER SNAKE WATER SUPPLY ISSUES



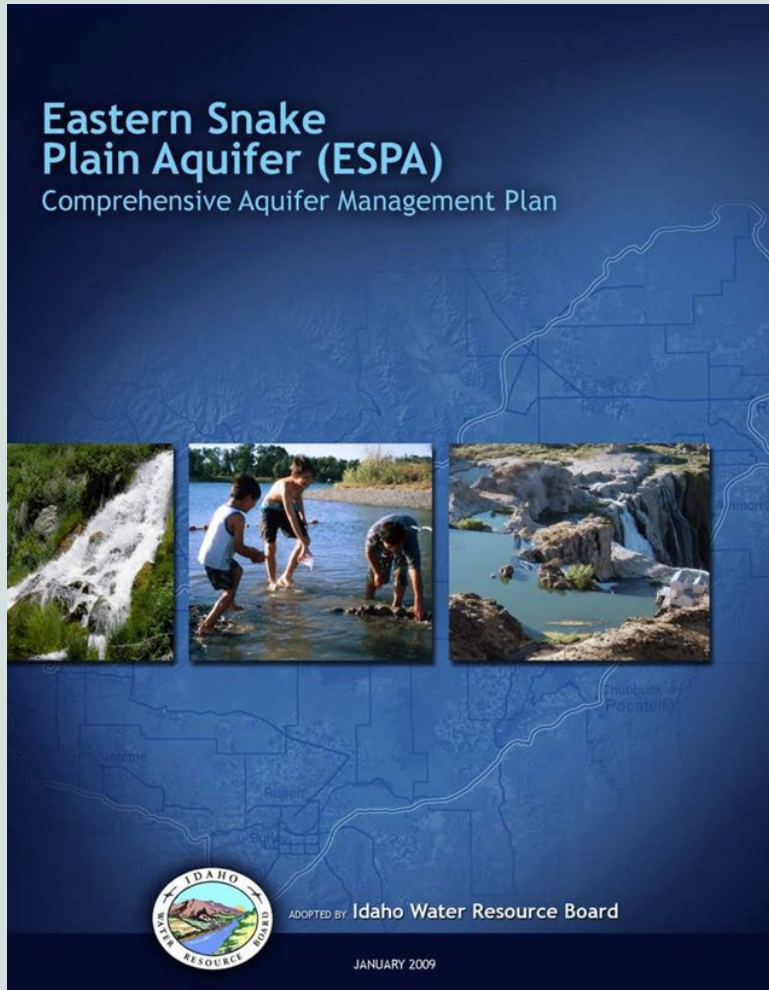
# ESPA AND THOUSAND SPRINGS



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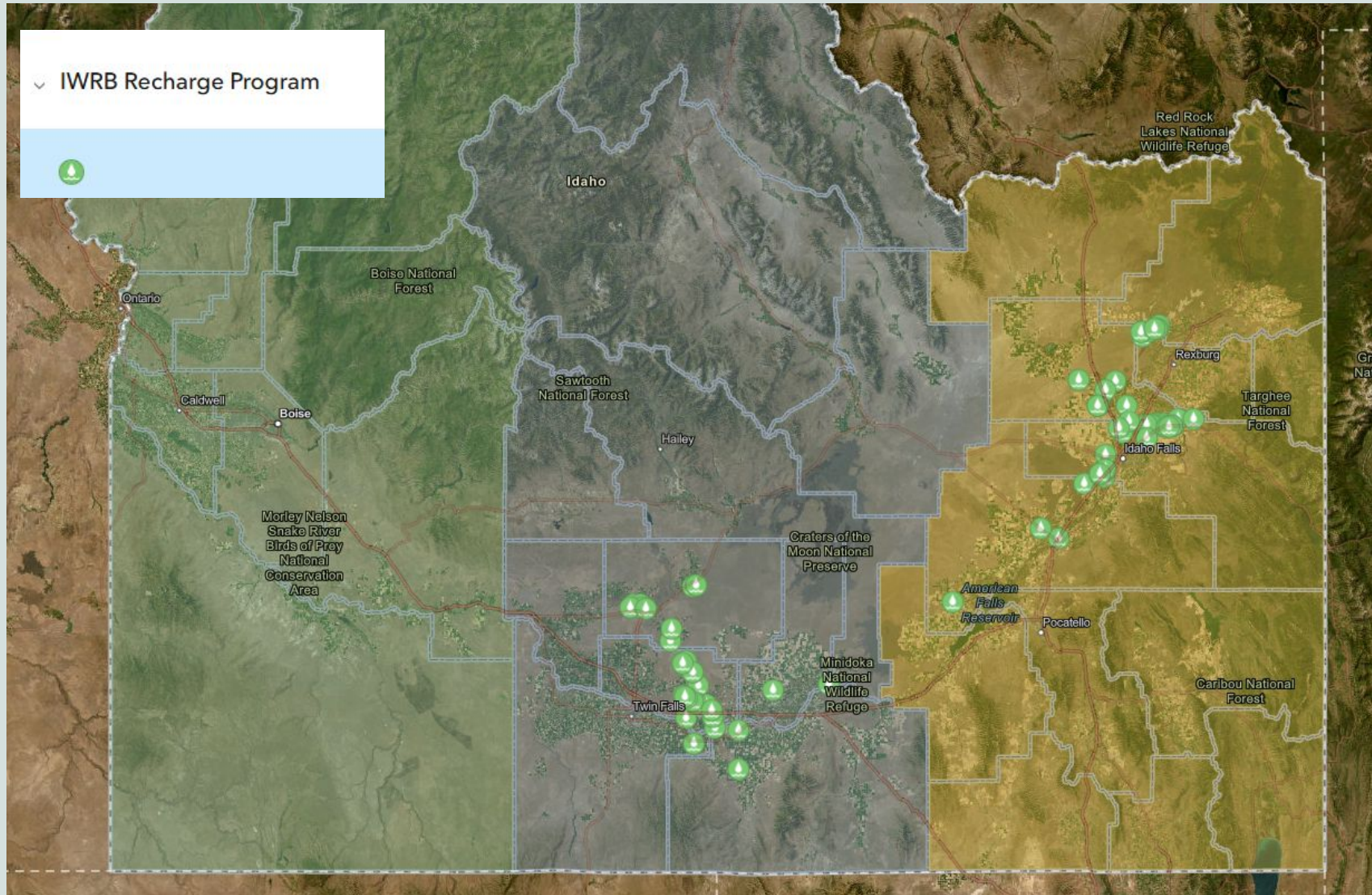


# ESPA CAMP

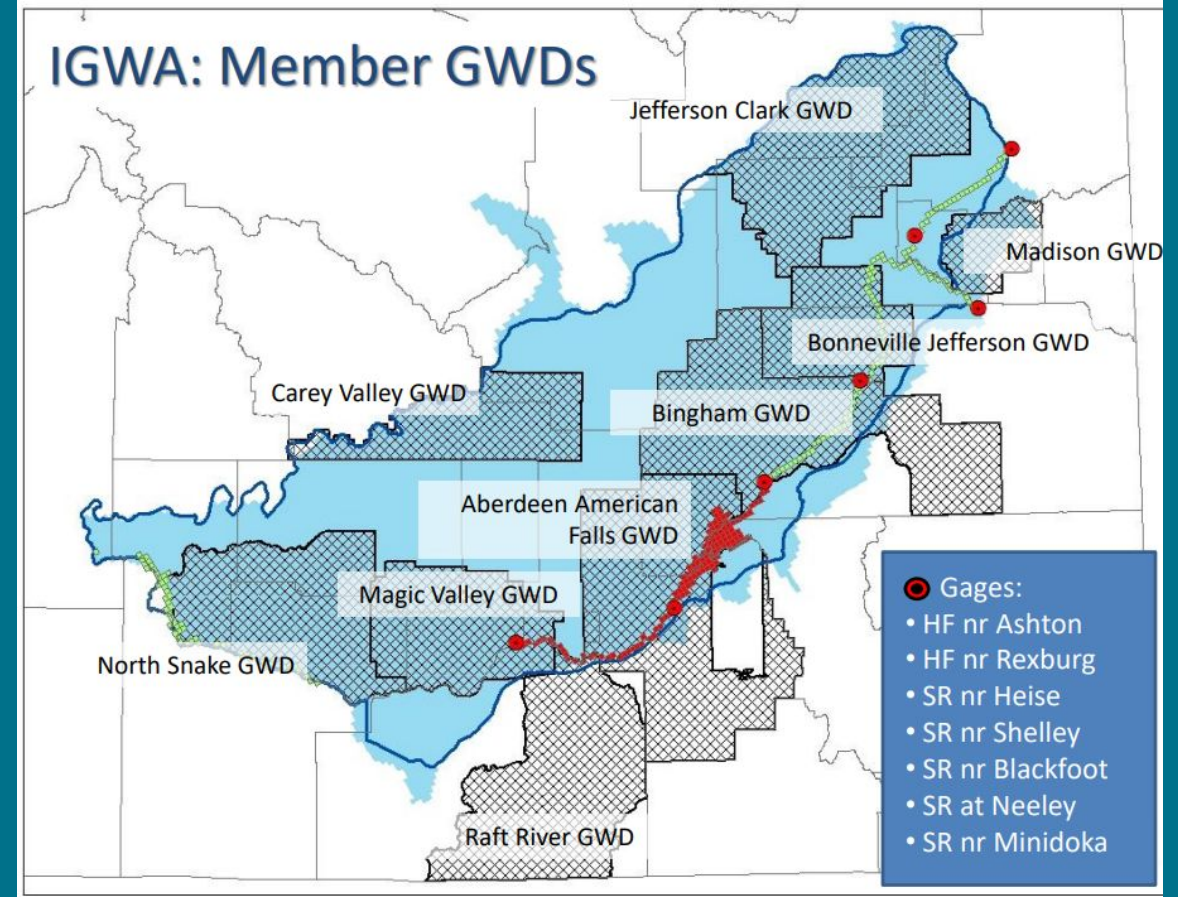
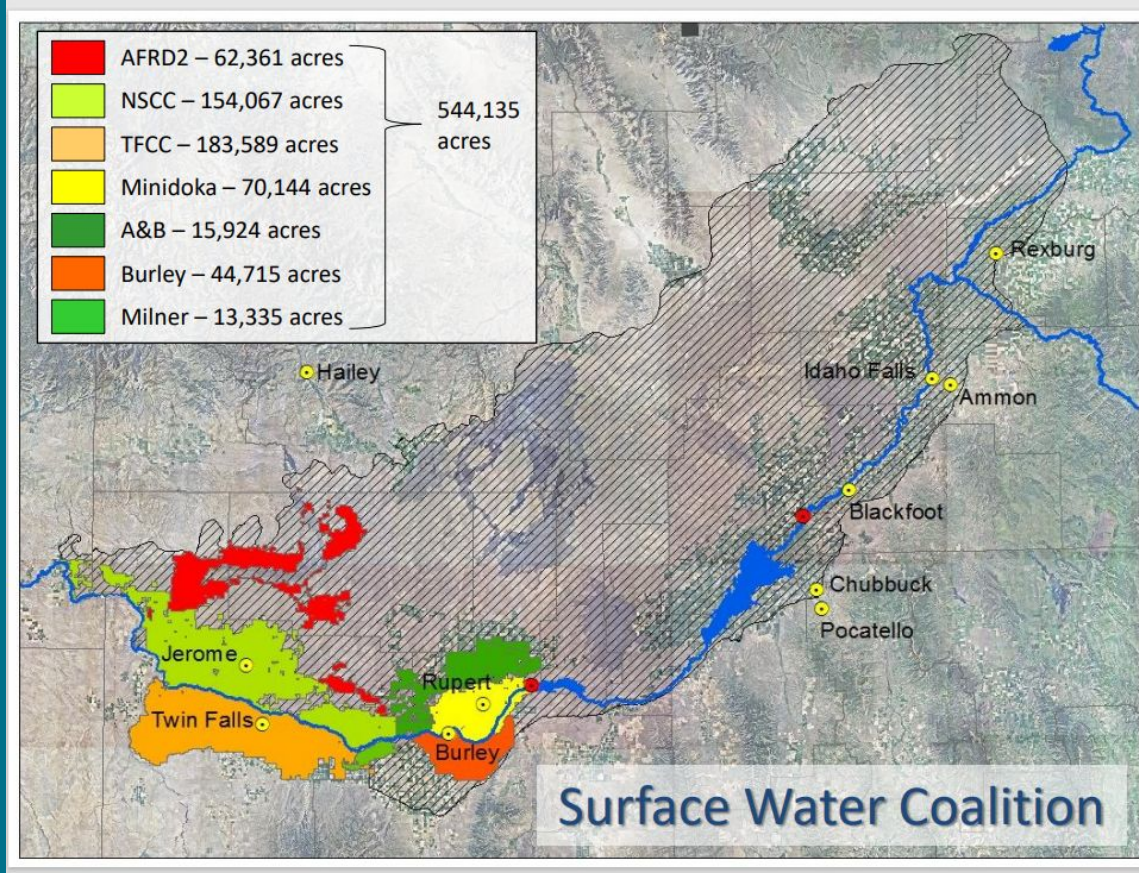


- **Problem: Significant groundwater declines in ESPA**
- **Goal: “Sustain the economic viability and social and environmental health of the Eastern Snake Plain by adaptively managing a balance between water use and supplies.”**
- **Key Components:**
  - Aquifer recharge: 250,000 afy
  - Demand reduction: 240,000 afy
  - GW-to-SW conversions: 100,000 afy
  - Cloud seeding

# IWRB RECHARGE PROJECTS



# SWC DELIVERY CALL



# 2015 MITIGATION AGREEMENT

**SETTLEMENT AGREEMENT ENTERED INTO JUNE 30, 2015 BETWEEN PARTICIPATING MEMBERS OF THE SURFACE WATER COALITION<sup>1</sup> AND PARTICIPATING MEMBERS OF THE IDAHO GROUND WATER APPROPRIATORS, INC.<sup>2</sup>**

IN SETTLEMENT OF LITIGATION INVOLVING THE DISTRIBUTION OF WATER TO THE MEMBERS OF THE SURFACE WATER COALITION, THE PARTIES AGREE AS FOLLOWS:

**1. Objectives.**

- a. Mitigate for material injury to senior surface water rights that rely upon natural flow in the Near Blackfoot to Milner reaches to provide part of the water supply for the senior surface water rights.
- b. Provide “safe harbor” from curtailment to members of ground water districts and irrigation districts that divert ground water from the Eastern Snake Plain Aquifer (ESPA) for the term of the Settlement Agreement and other ground water users that agree to the terms of this Settlement Agreement.
- c. Minimize economic impact on individual water users and the state economy arising from water supply shortages.
- d. Increase reliability and enforcement of water use, measurement, and reporting across the Eastern Snake Plain.
- e. Increase compliance with all elements and conditions of all water rights and increase enforcement when there is not compliance.
- f. Develop an adaptive groundwater management plan to stabilize and enhance ESPA levels to meet existing water right needs.

# 2023 NOTICE OF POTENTIAL CURTAILMENT



- Update and refine model (e.g., new climate and hydrological data, higher seasonal resolution)
- Large shortfall predicted (75,200 af) and early priority cutoff (December 30, 1953)
- Contested case hearings, notice lifted in July

# 2024 CURTAILMENT NOTICE



IDAHO DEPARTMENT OF  
**WATER RESOURCES**

NEWS RELEASE - FOR IMMEDIATE RELEASE

Contact: Brian Patton, Deputy Director, Idaho Department of Water Resources, 208-287-4800

**IDWR Director finds ESPA ground water districts' mitigation plans deficient  
in addressing water shortfall; ground water users have a week to resolve issue**

## **Six ESPA groundwater districts face water curtailment**

Published 9:15 am Monday, June 3, 2024

By CAROL RYAN DUMAS  
Capital Press

# NEW MITIGATION PLAN

AGRICULTURE

## Idaho farmers reach potential agreement on new long-term water mitigation plan

🕒 Published at 4:15 pm, October 29, 2024 | Updated at 6:38 pm, October 29, 2024



Clark Corbin, Idaho Capital Sun

## OPINION: Idaho's water is in trouble and farmers, not government mandates, are the solution

*Wednesday August 14, 2024*

*By Governor Brad Little*

Most people don't know it, but Idaho has a problem – a big problem only Idahoans can solve.

Idaho is facing a water shortage underground. It's a tough message to convey because Idaho is in a good water year, but this is not about the water you can see. It is about the water you can't see. The Eastern Snake Plain Aquifer (ESPA) is rapidly dwindling. It has been for decades.

# MITIGATION PLAN DETAILS

## **2024 Agreement:**

- Protections for individual GWDs regardless of other's performance
- Individual accountability: If a GWD member fails to comply, the GWD will report the member to IDWR for enforcement

## **2015 Agreement:**

- Collective compliance for all IGWA GWD

# MITIGATION PLAN DETAILS

## 2024 Agreement:

- Each GWD to conserve its proportionate share of 205,000 ac-ft on an average annual basis
  - Average over 4-year compliance period

## 2015 Agreement:

- Each GWD to conserve its proportionate share of 240,000 ac-ft in an annual basis

**Both:** Supplement conservation with recharge, 2024 includes standards for valuing recharge

# MITIGATION PLAN DETAILS

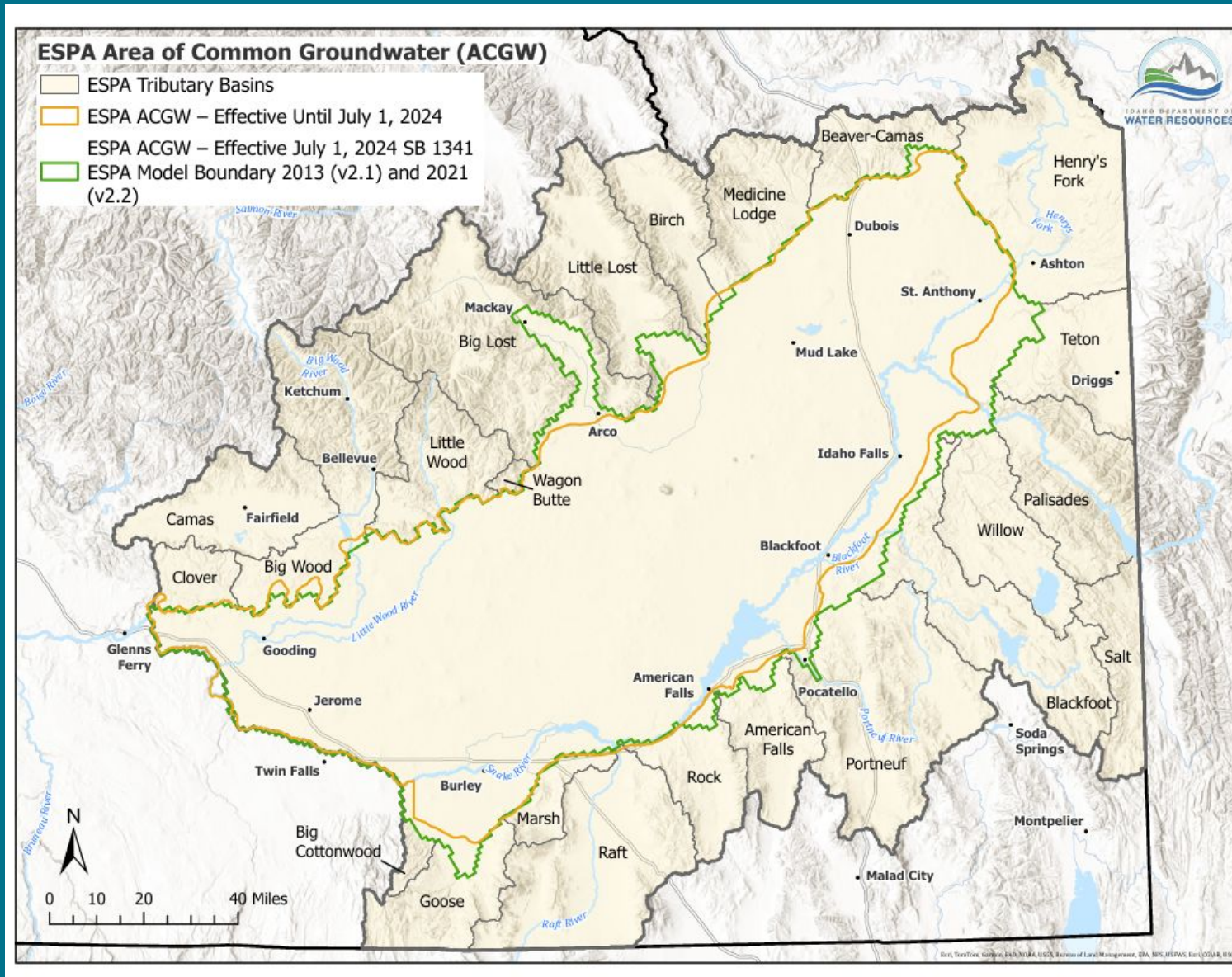
## **2024 Agreement:**

- GWDs to secure the volume of storage water required to meet SWC irrigation needs, approx. 75,000-82,500 afy
  - Will be reassessed at regular intervals based on reach gains

## **2015 Agreement:**

- GWDs to secure storage up to 50,000 afy

# ESPA ACGWS EXPANSION



# OREGON



- **Similarities with WA:**

- Prior Appropriation Doctrine
- Regulatory structure
- Limited large-scale adjudication

- **Differences from WA:**

- Only limited water banking (Deschutes Basin)
- Restrictive/protective groundwater management

# ADJUDICATION EXTENT

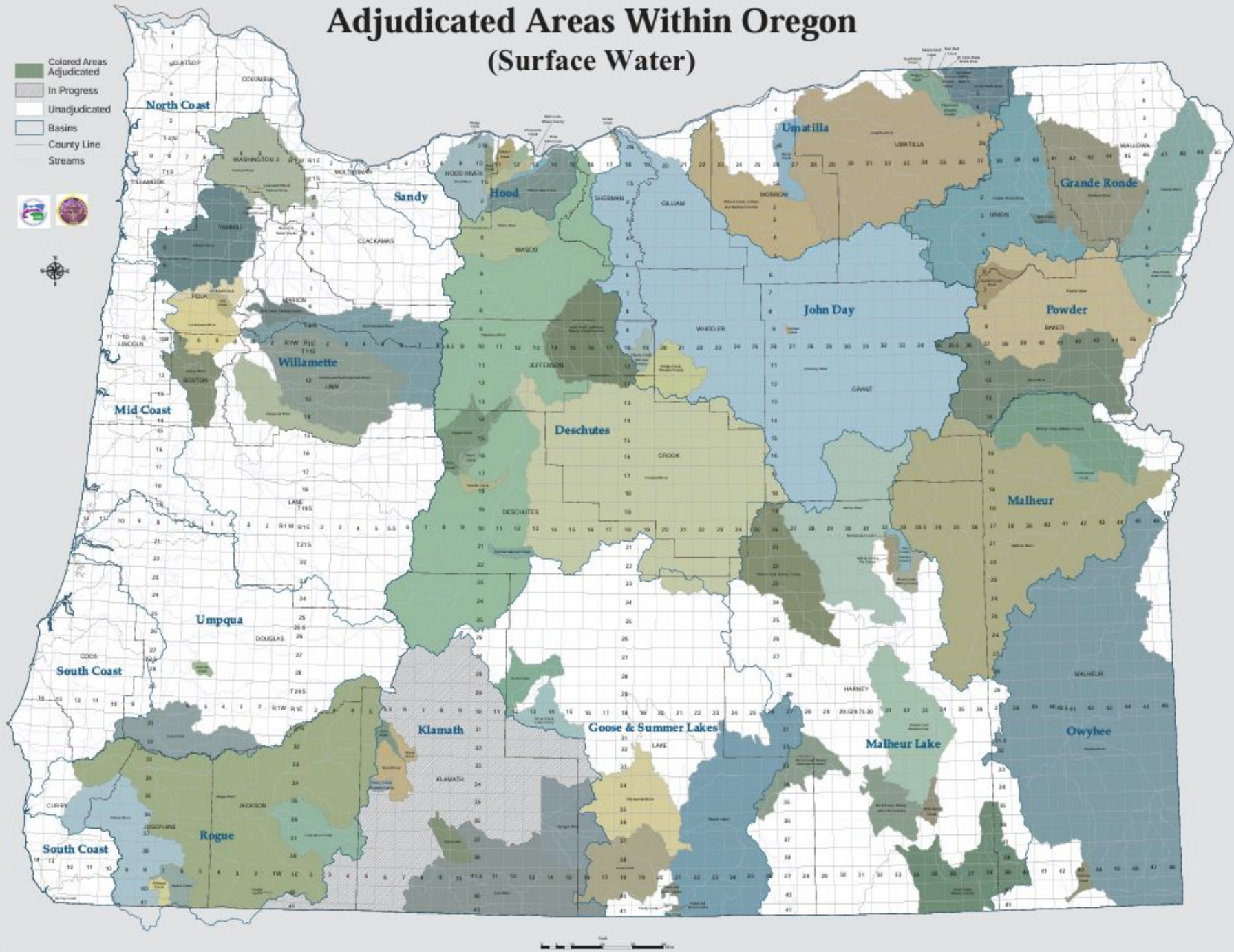


**Adjudicated Areas Within Oregon  
(Surface Water)**

Colored Areas Adjudicated  
In Progress  
Unadjudicated  
Basins  
County Line  
Streams

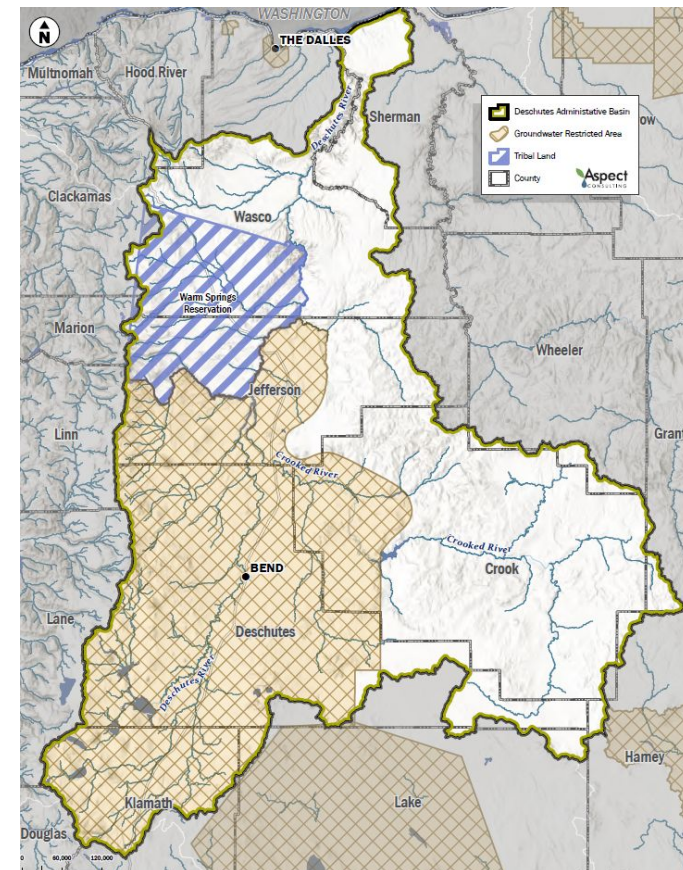
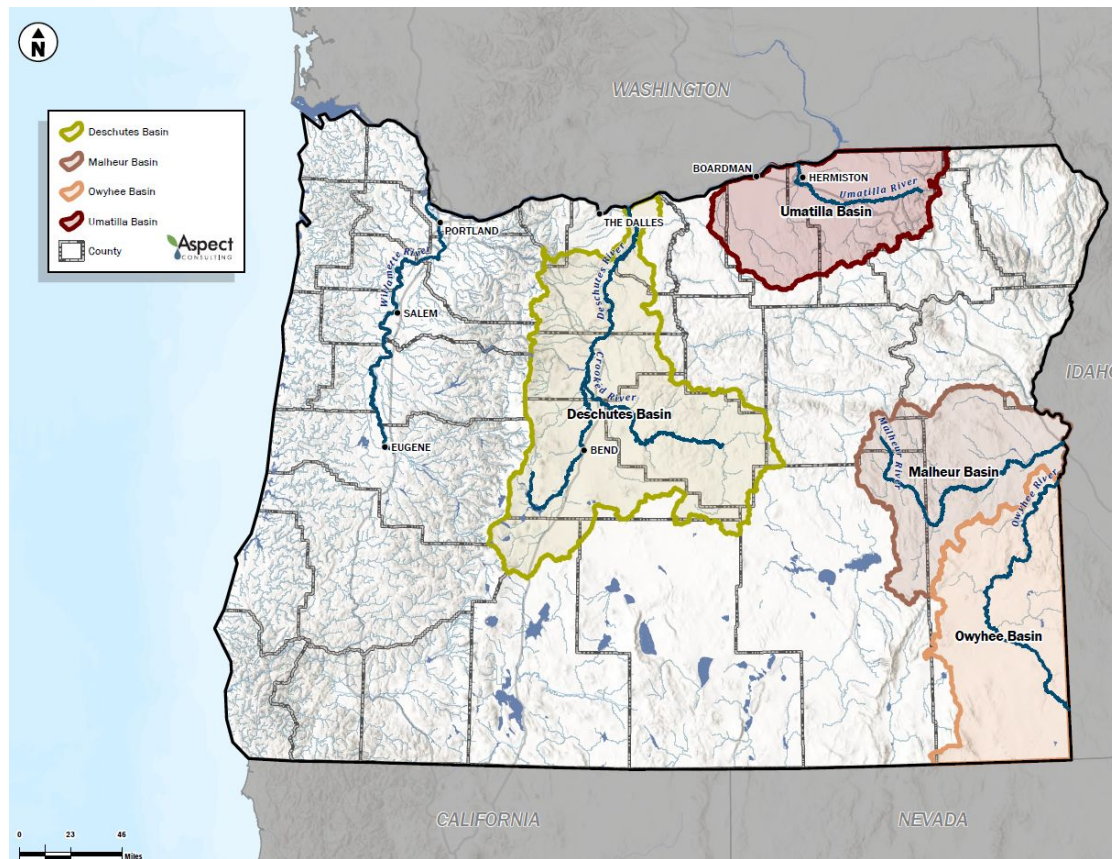
North Coast  
Mid Coast  
South Coast  
Umpqua  
Rogue  
Klamath  
Goose & Summer Lakes  
Malheur Lake  
Owyhee  
John Day  
Powder  
Grande Ronde  
Umatilla  
Hood  
Sandy  
Deschutes  
Willamette  
Malheur

Scale  
0 10 20 30 40 50 Miles



# DESCHUTES BASIN WATER BANKS





**Oregon Mitigation Case Studies...**  
**stay tuned, we will be back in 2026**

# QUESTIONS?



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