

Today's webinar Presenters

Tony Willardson, Executive Director of the WSWC

- Oversees development of the Council's Water Data Exchange (WaDE)
- B.A., political science, Brigham Young University; M.S., public administration, University of Utah
- Author of numerous articles and reports on water resource issues
- Co-chairs NOAA's National Integrated Drought Information System Executive Council

Arianne Singer, Deputy General Counsel, New Mexico Office of the State Engineer

- Represented the State in 11 adjudications since 2005, including Aamodt, Taos and Navajo water rights settlements
- Currently involved in litigation and settlement negotiations of water rights claims of other Pueblos and Tribes

John Simpson, Partner, Barker, Rosholt & Simpson, LLP

- Worked as engineer in structural design and construction and in the Electric Utility industry.
- Member of the National Water Resources Association's Policy Development Committee since 2001.
- Representative to the WSWC. Assists clients in litigation and administrative proceedings concerning conjunctive administration of ground and surface water, remediation of ground and surface water, adjudication of Native American water right issues and power generating facilities.
- B.S., University of Idaho; M.B.A. Boise State University; J.D. Lewis and Clark College, Northwestern School of Law.

Pat Lambert, SW Region Associate Director/Water Census Leadership Team, USGS

- Has been involved in USGS science as a principal investigator or science program manager since 1985, focusing on development of models of hydrologic systems.
- Led and managed USGS science programs and staffs in Idaho, Nevada, and Utah and served as the Director of the USGS Utah Water Science Center from 2003 to 2014.
- Served from 2014-2016 as the Federal Liaison to the Western States Water Council and currently serves as Vice-Chair of the Western States Federal Agency Support Team.
- Undergraduate studies in Geophysics, University of Utah; graduate studies in hydrogeology, Boise State University and in water resources, Utah State University.

Meeting Future Western Water Needs

Western Regional Panel Webinar

October 31, 2017

Tony Willardson
Executive Director



Western States Water
Council

Western States Water Council

- Advisory body to 18 western Governors on water issues
- Ensure adequate supplies of water of suitable quality
- Provides states collective voice
- Fosters state/state and federal/state collaboration
- Works with the Western Governors' Association (WGA)
- Western Federal Agency Support Team (WestFAST)



To Foster Sustainable Growth Policies

1. Identify present/future water supplies and water use requirements
2. Encourage water use efficiency
3. Place an appropriate value on water
4. Recognize all uses and needs (economy & environment)
5. Develop integrated water plans/growth impact scenarios
6. Increase availability & storage capacity
7. Provide water rights/water use certainty for investment
8. Facilitate voluntary water transfers, water markets and water banking

Risk and Uncertainty

- General lack of data on water needs and past, present and future uses (as well as future supplies)
- Increasing population, water & energy needs
- Climate change and variability
- Endangered species' and other instream uses and outflows to bays and estuaries
- Unquantified federal/tribal water rights

Water Law 101 - Law of Prior Appropriation

- Priority Dates -- First in Time, First in Use
- No Injury (protection for prior rights)
- Use it or Lose it! (non-speculation)
- Requires Reasonable Beneficial Use
- Prohibits Waste (water duties)
- Based on Consumptive Water Use (not diversion)
- Forfeiture and Abandonment Statutes
- Federal Reserved Rights (Indian and Non-Indian)
- General State Water Rights Adjudications
- McCarran Amendment (waived sovereign immunity)
- Interstate Compacts and International Treaties
- Well Defined Water Rights Provide Certainty
- Facilitate Water Market Transfers, Leases, Banking

Arizona

- Two general state stream adjudications -- The Gila River System and the Little Colorado River System.
- Between 1979 and 1986, almost 1M landowners were served resulting in 70,000 claims (including 13 Indian reservations).
- Over 38,000 parties in the Gila Adjudication and over 5,800 parties in the LCR Adjudication.
- On behalf of federal non-Indian lands alone, the United States filed over 15,000 claims.
- In Arizona, ground water is private property owned by the landowner, but declining water levels led to active management areas in the 1980s to reduce use and achieve “sustainable yield”

California

- California State Water Resources Control Board (SWRCB) is responsible for comprehensive statutory adjudications.
- California recognizes as claimants those with public trust values
- Draft & final administrative orders filed with Superior Courts
- CA permits surface water, but not ground water use
- CA recognized riparian and appropriative water rights
- Court decrees have adjudicated ground water in 22 basins
- Since 1903, reasonable use doctrine applies to groundwater
- Santa Margarita adjudication and Camp Pendleton's water rights

Colorado

- Judicial adjudications through water courts w/water user filing.
- Colorado has a state-wide adjudication of surface and tributary groundwater divided into divisions.
- Conducted rolling adjudications of state water rights for 100 years.
- Original adjudications of rights in each water districts by their decreed appropriation dates. Supplemental adjudications are junior to all of the water rights confirmed in the original adjudications.
- Colorado incorporates federal agency rights into divisional decrees.
- Colorado State Engineer administers all surface and groundwater rights

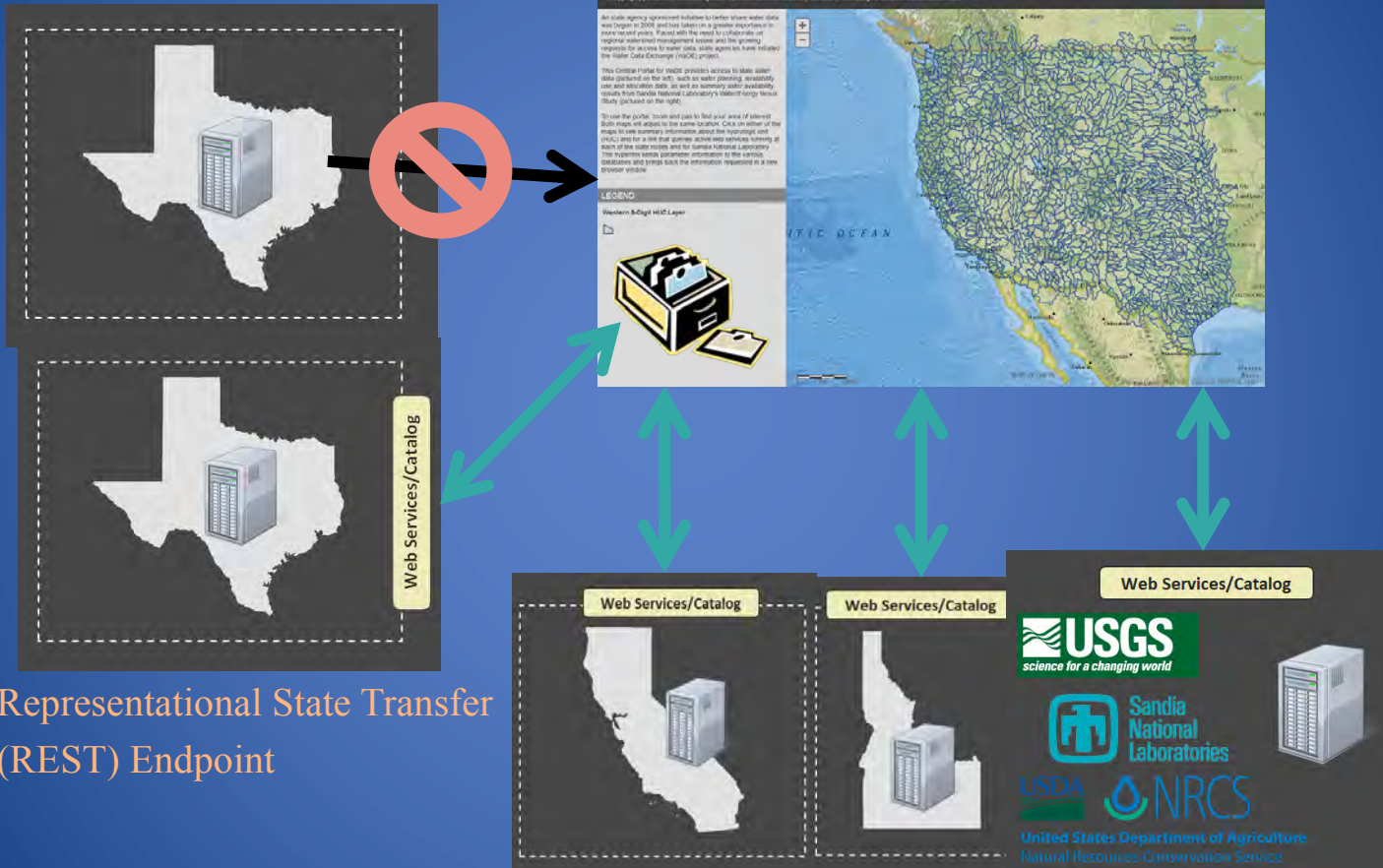
Nevada

- The Nevada Division of Water Resources is responsible for quantifying existing water rights; monitoring water use; and distributing water in accordance with court decrees.
- The Reclamation Act of 1902 led to adjudications as a necessary means of quantifying rights senior to federal projects.
- Adjudications also played a role in unifying state laws pertaining to the use of surface and groundwater.
- Nevada has completed adjudications and decrees for any stream with any water!

Utah

- Water rights adjudications help bring order and certainty by defining existing rights, quantifying unknown rights, and removing unused and abandoned rights through judicial decree.
- All Utah's hydrologic areas are currently involved in a court-ordered adjudication of water rights, except the Weber River, Sevier River, and Green River basins. The water rights on the Sevier and Weber Rivers were adjudicated and decreed in the 1920's and 1930's, with most others initiated in the 1950's to early 1970's.
- Utah has a 13 step process, beginning with a water users petition or lawsuit, followed by notice, summons, public meetings, filings, objections, a proposed determination, and final decree.

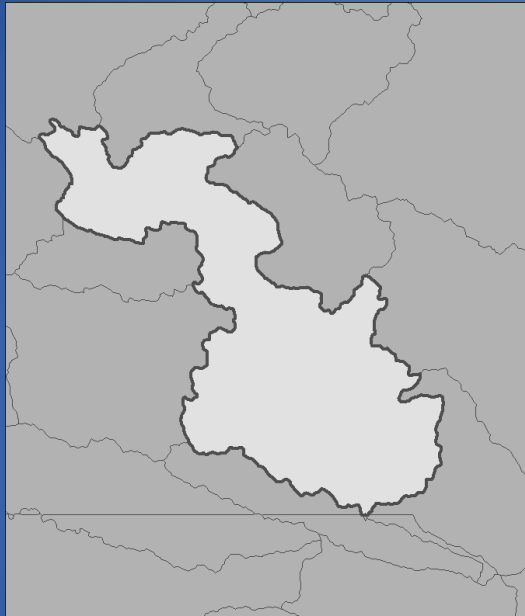
WADE: HOW DOES IT WORK?



Representational State Transfer
(REST) Endpoint

<http://www.state.us/webservices/GetSummary>

WHAT WILL IT PROVIDE?

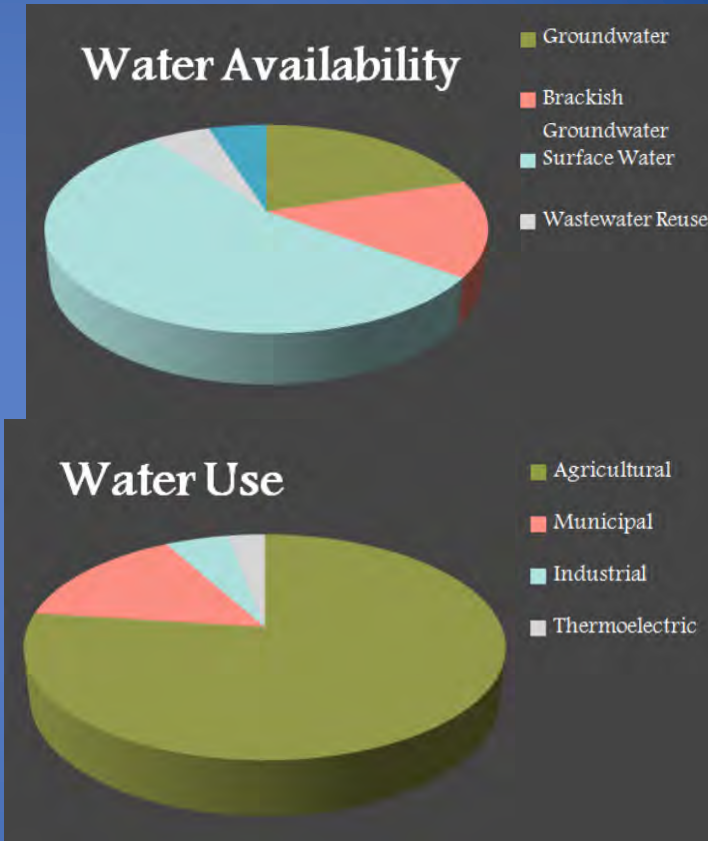


Water Supply Summary: 24,000 acre-feet
Regulatory & Allocation Summaries:

- Groundwater Management Areas
- % of Allocations by Beneficial Use Category

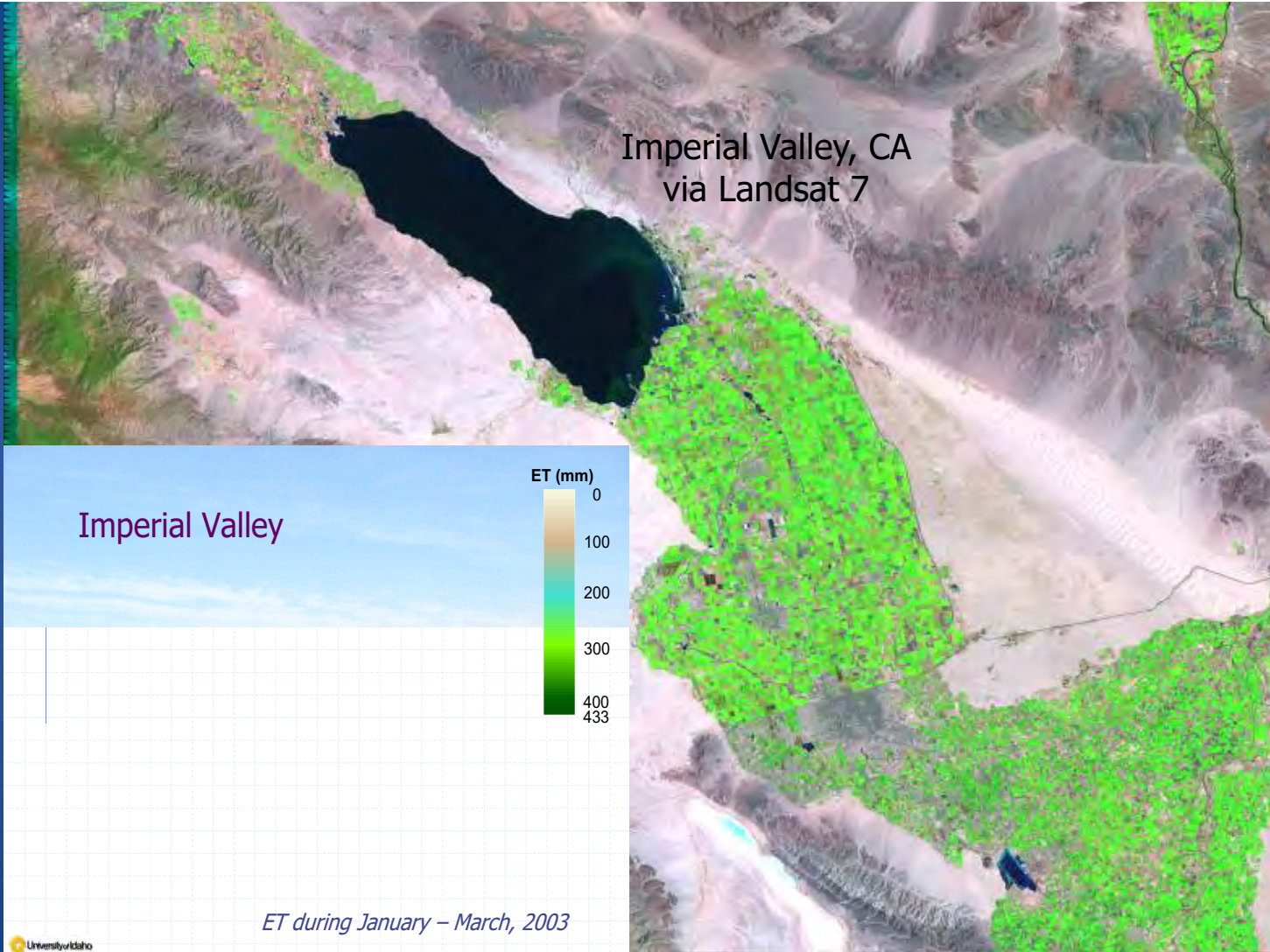
Summaries of Data

7,550 acre-feet



2,850 acre-feet

Imperial Valley, CA
via Landsat 7





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WHAT TAKES SO LONG? NEW MEXICO ADJUDICATIONS: PUEBLOS, ACEQUIAS AND DOMESTIC WELLS

**Arianne Singer
Deputy General Counsel
New Mexico Office of the State Engineer
Santa Fe, New Mexico
October 31, 2017**

1907 Water Code

- ▶ Section 72-4-13: “The state engineer shall make hydrographic surveys and investigations of each stream system in the state”
- ▶ Section 72-4-15: “The attorney general of the state shall . . . enter suit on behalf of the state for the determination of all rights to the use of such water”
- ▶ Section 72-4-19: “Such decree shall . . . declare the priority, amount, purpose, periods and place of use, and as to water used for irrigation . . . the specific tracts of land to which it shall be appurtenant”

Prior appropriation and beneficial use

- ▶ Constitution: Article XVI, Section 1

“All existing rights to the use of any waters in this state for any useful or beneficial purpose are hereby recognized and confirmed.”

Section 2: “Priority of appropriation shall give the better right.”

Priority: New Mexico's history

- ▶ Pueblos – claim “time immemorial” or “aboriginal” priority
- ▶ 19 Pueblos – 80 in 1540, 66 in Rio Grande area
 - Continuous occupancy since before European contact
 - Earliest claims to the use of water
 - Lands recognized in Land Grants from King of Spain
 - Four square leagues
 - Treaty of Guadalupe Hidalgo – 1848
 - “Cruzate Grants” of 17 Pueblos patented by United States 1858–1877

Acequias

Over 800 acequias or community ditches in NM

Most located in north central portion of State

71 in MRGCD

55 in Taos Valley

72 in Nambe Pojoaque Tesuque basin

Earliest European irrigation in western US

1598: First ditch dug by Don Juan de Onate

1600: Chamita Ditch on the Chama

1700: 60 acequias in New Mexico

Early Acequia System – ca. 1909

(Courtesy of Albuquerque Museum)



Log Dam On Hernandez Acequia Near Española, NM (Courtesy of NRCS)



Log Flume Near Córdoba, NM ca. 1940 (Courtesy of Museum of New Mexico)

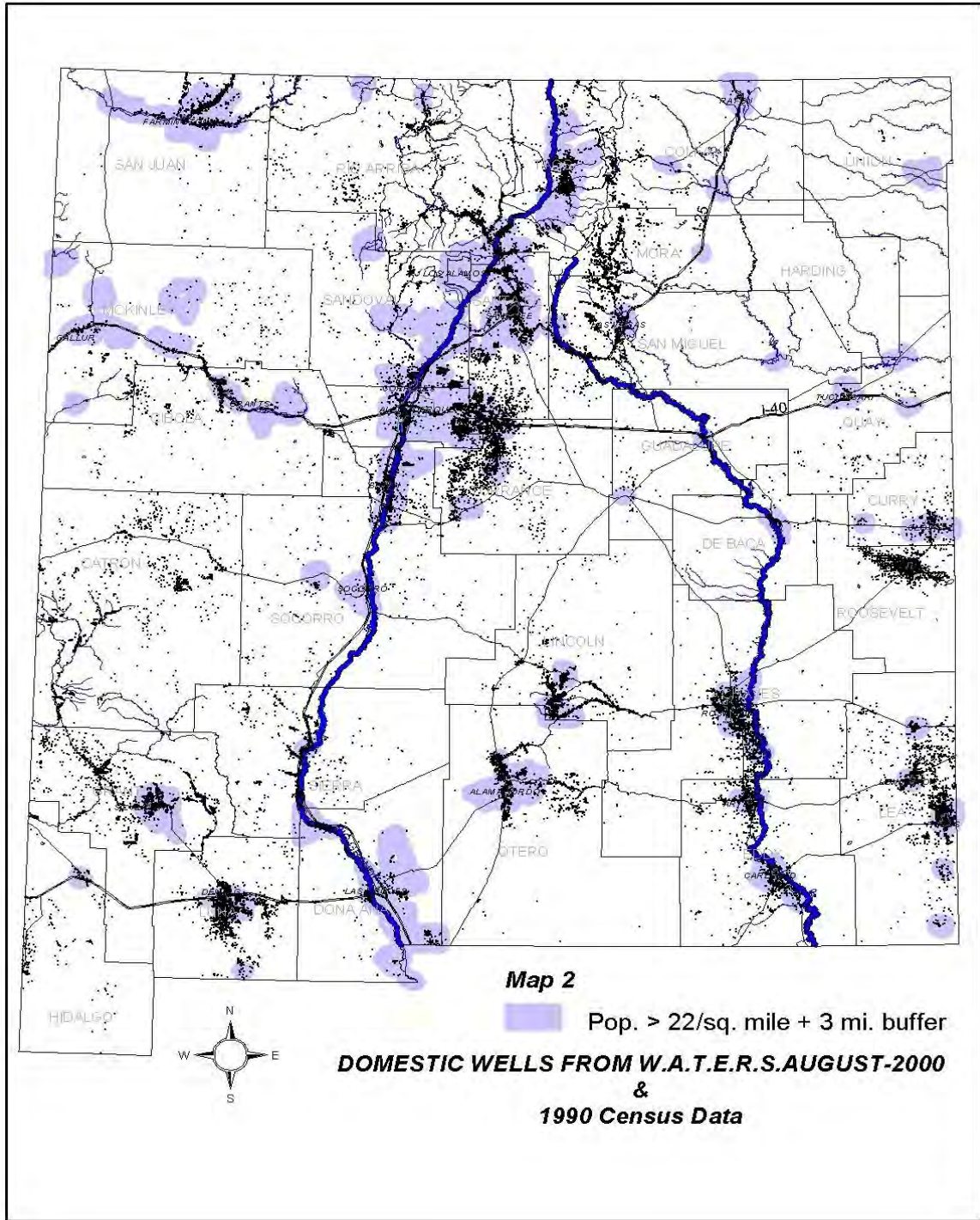


Brush and Rock Dam, Las Cruces Acequia – ca. 1912 (Courtesy of NMSU).



Domestic Wells

- ▶ Water Code authorizes domestic well permits for the diversion and use of groundwater for:
 - Domestic or household use; or
 - irrigation of not to exceed one acre of noncommercial trees, lawn or garden (NMSA Section 72-12-1.1)
- ▶ Permits allowed use of water up to 3 afy until 2006
- ▶ Meter readings show actual use of 0.3 afy



Aamodt Adjudication

- Filed in 1966
- Court entered a Final Decree for all water rights (both Pueblo and non-Pueblo) on July 14, 2017, bringing 51 years of litigation to a final conclusion.
- What took so long?
 - 4 Pueblos
 - 5,500 Non-Pueblo defendants
 - Acequia surface water irrigation rights
70 ditches, 2,700 irrigated acres
 - 2,700 Domestic Wells

Pueblo water rights

- ▶ No law to determine Pueblo water rights
 - Treaty of Guadalupe Hidalgo:
 - Recognized property rights of Mexican citizens – what were the water rights of the Pueblos under Spanish and Mexican law?
 - Federal reserved water rights doctrine:
 - Pueblos hold most lands under grants, not reservations
 - Aboriginal water right claims:
 - No treaties with US, so *Winans* Indian reserved right doctrine does not apply
- ▶ No law on Pueblos' right to separate legal representation

Acequias

- ▶ *Snow v. Abalos* (1914) – WRs owned by irrigators
- ▶ Politically influential in NM legislature
- ▶ Extremely early priority dates
 - In *Aamodt*, priorities range from 1716 to 1907
 - Testimony of expert historians critical
- ▶ Treaty of Guadalupe–Hidalgo
- ▶ Despite these challenges, adjudication of non-Indian acequia WRs was mostly completed early (1970s) in *Aamodt*

Domestic wells in *Aamodt*

- ▶ Early adjudications did not address domestic wells
 - Some excluded as de minimis
 - Some allowed adjudication if requested
- ▶ *Aamodt* first to individually adjudicate all domestic wells
 - Pueblos concerned about cumulative impact on GW supplies
 - 1983 injunction – new permits for indoor use only
- ▶ Ultimately, 2,700 domestic wells adjudicated
 - 900 over the last decade

Aamodt Settlement

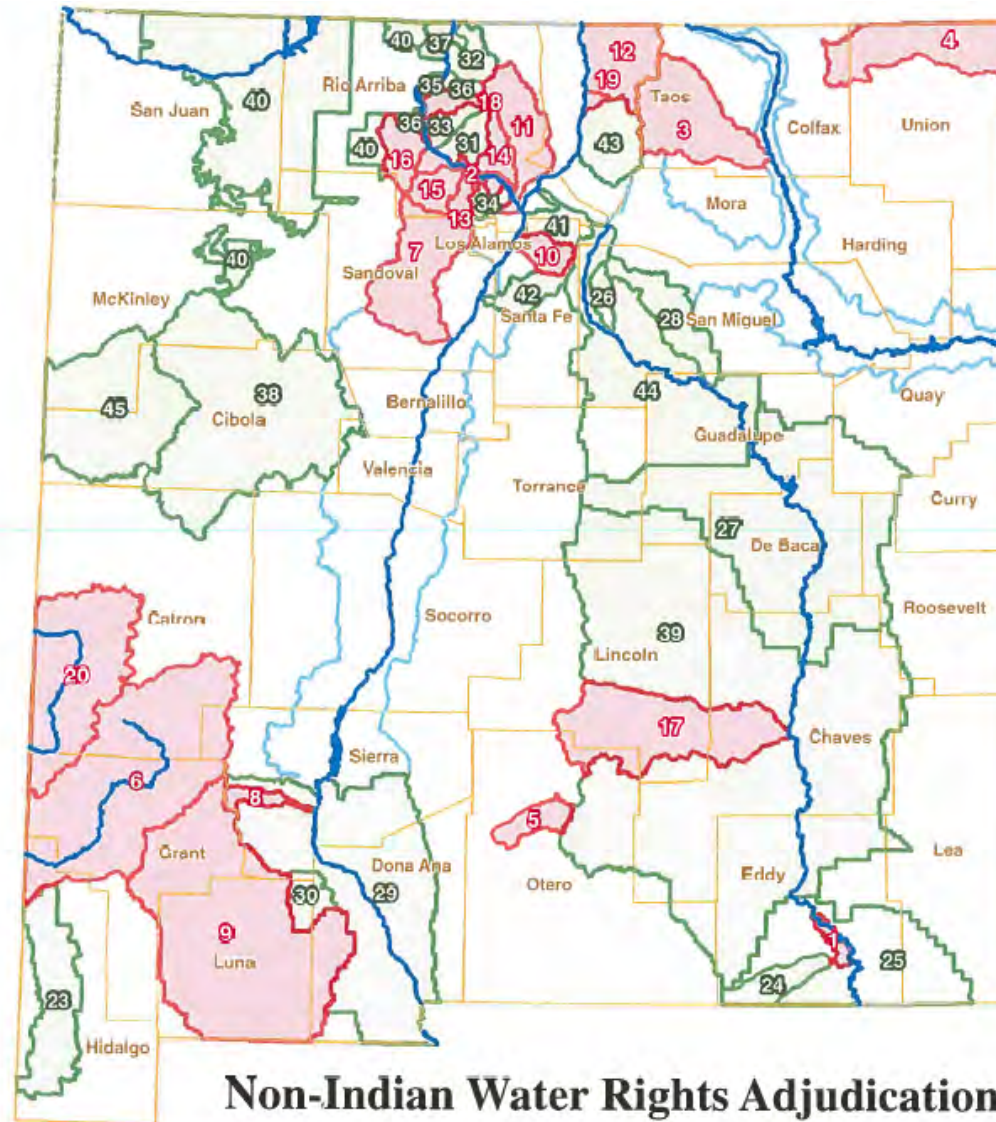
- Quantifies the water rights of the Pueblos of Nambé, Pojoaque, San Ildefonso and Tesuque in the Nambé-Pojoaque-Tesuque Basin.

Existing rights based on court-recognized
Historically Irrigated Acreage (HIA)

- Protects existing water rights
Acequias and domestic well uses
- Authorizes 1,079 AFY of water supply contracts from the San Juan Chama Project to satisfy future needs
- Funds construction of Regional Water System as domestic water supply in the basin
- Up to 4,000 AFY imported into NPT Basin

Implementation

- ▶ In July and August, 2017, the State Engineer issued permits to the Regional Water Authority for the diversion and consumptive use of at least 2,381 afy by the Pueblos, including 1,079 AFY of water supply contracts from the San Juan–Chama Project.
- ▶ September 12, 2017: State Engineer promulgated administrative Rules for the Nambe–Pojoaque–Tesuque Water Master District: Active Water Resource Management
- ▶ October 3, 2017: Metering Order for metering of all wells in district



Non-Indian Water Rights Adjudications

Number	Name	Completed Adjudications	Number	Name	Active Adjudications
1	Carlsbad Irrigation District		23	Animas Valley	
2	Chama Mainstem		24	Black River	
3	Cimarron/Riayado		25	Carlsbad Underground	
4	Dry Cimarron		26	Cow Creek	
5	Fresno/La Luz		27	Fl. Summer	
6	Gila River		28	Galinas River	
7	Jemez		29	Lower Rio Grande	
8	Las Animas Creek		30	Nuth-Hockett	
9	Membras Basin		31	Rio Chama - Canyon Creek	
10	Nambé/Pojoaque/Tesuque		32	Rio Chama - Rio Brazos	
11	Ojo Caliente		33	Rio Chama - Rio Cebola	
12	Red River - Cabresco Creek - West Ladr.		34	Rio Chama - Rio Del Oso	
13	Rio Chama - Canones Creek		35	Rio Chama - Rutherford	
14	Rio Chama - El Rio		36	Rio Chama - Tierra Amarilla	
15	Rio Chama - Rio Gallina		37	Rio Chama - Village of Chama	
16	Rio Chama - Rio Nutrias		38	Rio San Jose	
17	Rio Chama - Rio Puerco		39	Roswell Artesian	
18	Rio Hondo - Bonito - Ruidoso		40	San Juan	
19	San Cristobal		41	Santa Cruz/Turistas	
20	San Francisco River		42	Santa Fe	
			43	Taos/Hondo/Grande	
			44	Uppigal Pecos	
			45	Zuni	

Legend

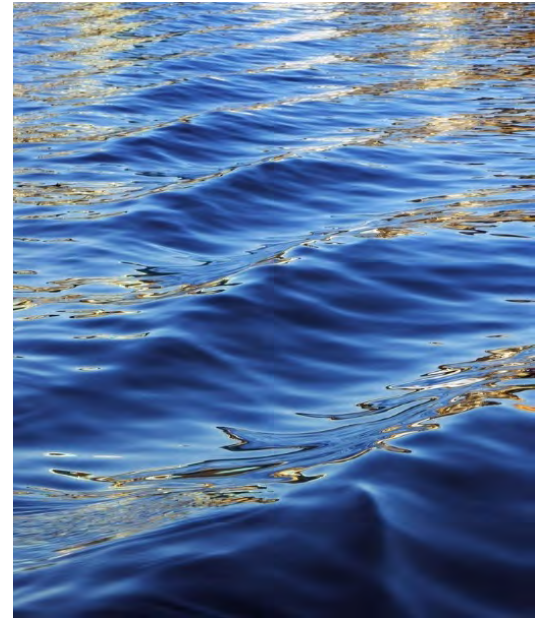
- Streams
- County
- Completed Adjudications
- Active Adjudications
- Not Adjudicated





Water Right Adjudication in Idaho

John K. Simpson



Adjudication

"Adjudication serves a noble purpose," he said. "It lets people of Idaho know just what they own. Everything from farming to fishing to mining and manufacturing requires water. Each of these will go smoothly now that they know what they own."

U.S. Supreme Court Justice Antonin Scalia

August 25, 2014



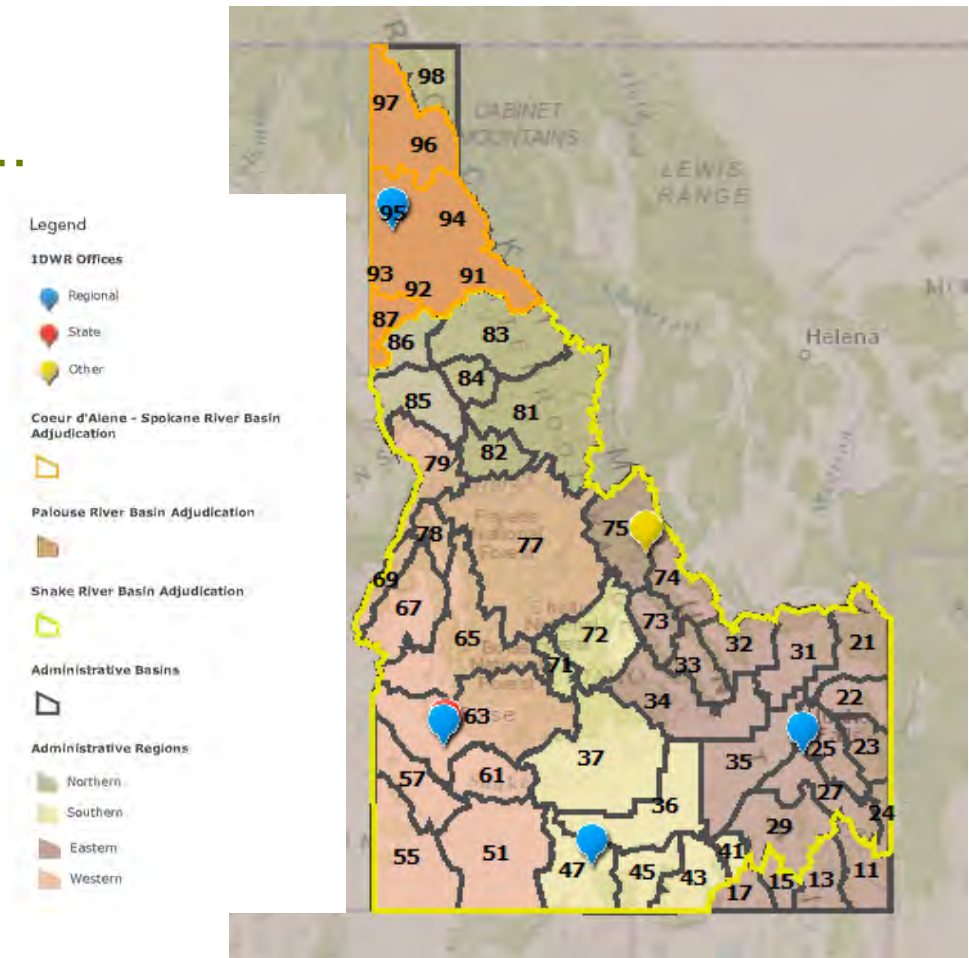
Purposes of Idaho Water Adjudications

- Snake River Basin Adjudication
 - Swan Falls Settlement
- Confirm Uses
 - Mandatory Permit Process
 - 1971 Surface Water
 - 1963 Groundwater
 - Prior to those dates one could acquire a right by Constitutional Method
 - Diversion
 - Intent
 - Beneficial use



Adjudication, continued...

- Snake River Basin Adjudication (SRBA)
 - 158,664 Water Right Claims Decreed as of June 7, 2017
- Coeur d'Alene-Spokane River Basin Adjudication (CSRBA)
 - Basins 91-95
 - 11,853 Total Number of Claims filed, 7,647 claims remaining to be reported as of June 7, 2017
 - 13,000 Claims originally projected
- Palouse River Basin Adjudication (PRBA)
 - Basin 87
 - Commencement Order issued March 1, 2017
 - IDWR requesting all federal claims be submitted by December 2019
- Clark Fork-Pend Oreille River Basins Adjudication (CFPRBA)
 - Basins 96-97





- WestFAST
 - *Supports a continued commitment on the part of Federal, and State organizations to improve the effectiveness of collaboration to seek solutions to water issues in the Western States*

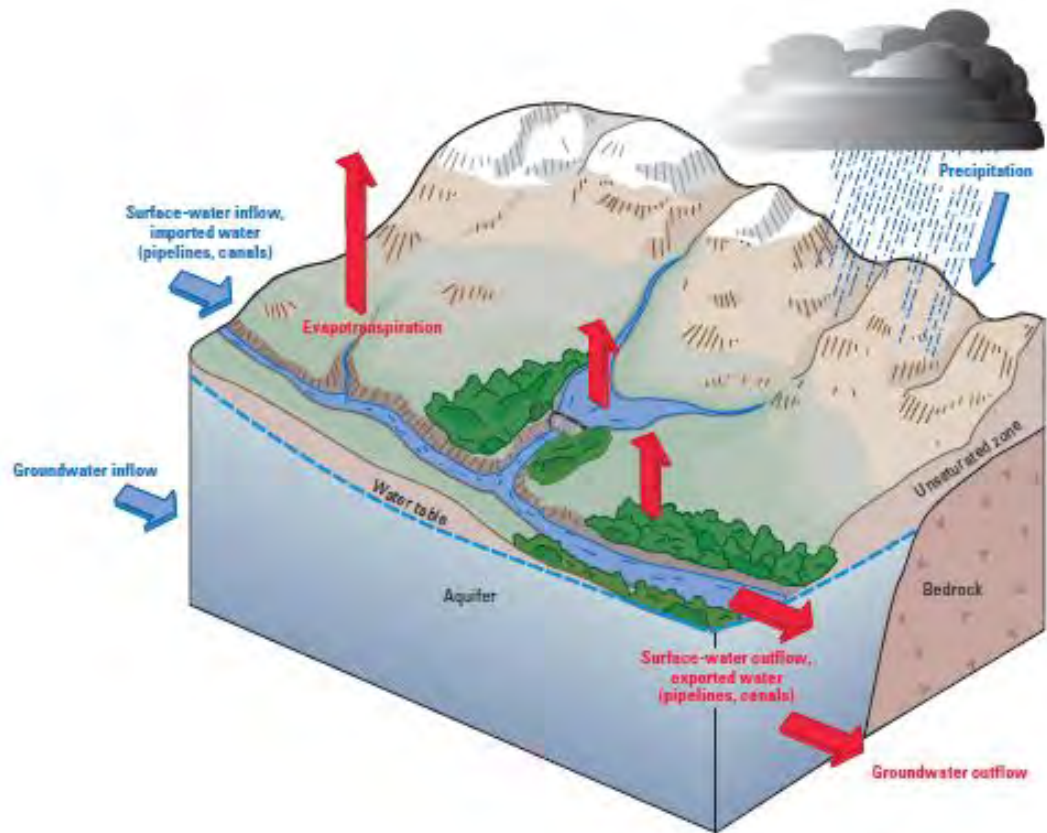
WestFAST and the WSWC have formed a **Federal Non-Tribal Reserved Water Rights Workgroup** to improve understanding of responsibilities of state and federal actors in water allocation and management. The workgroup is -

- Developing an information clearinghouse
- Co-sponsor regular Workgroup conferences to improve mutual understanding in as well as to identify ways that we can work together.
 - [McCarran Act Amendment](#)
 - [Groundwater and Meeting Federal Water Needs](#)
 - [Continuing State-Federal Relationships through the Implementation Phase of Decreed and Adjudicated Water Rights](#)

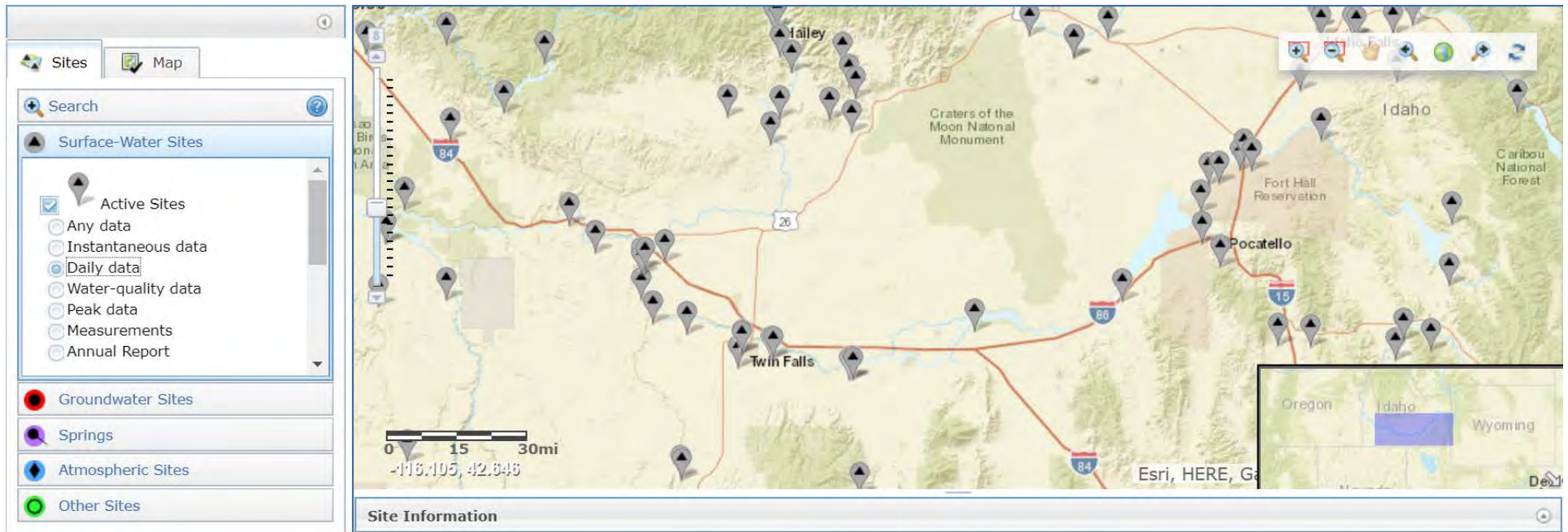


How much is available?

Water budgets account for the inputs to, outputs from, and changes in the amount of water in the various components of the water cycle. They are the hydrologic equivalent of the deposits to, withdrawals from, and changes in the balance in a checking account and provide the hydrologic foundation for analysis of water availability.

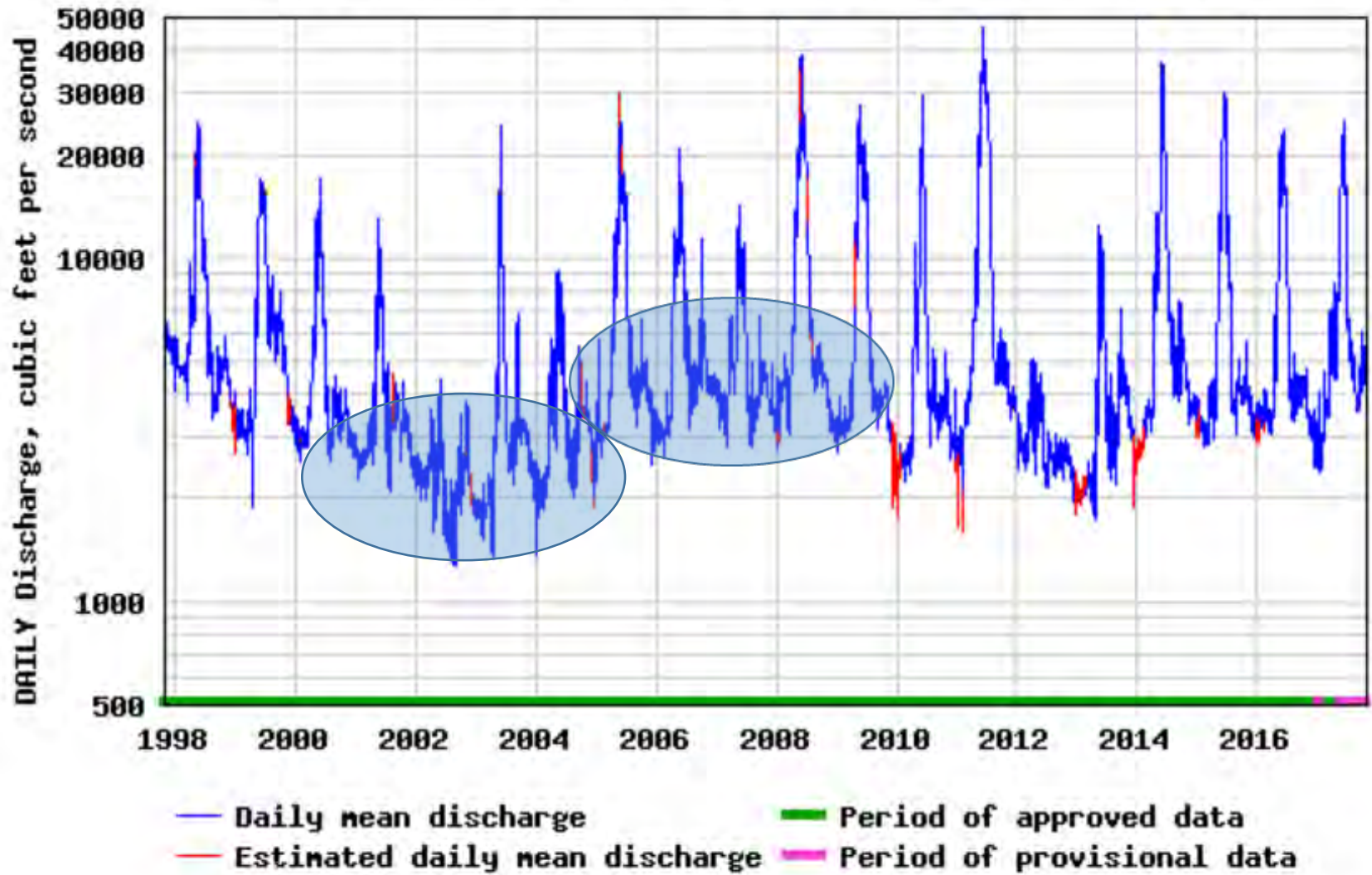


Active USGS streamflow gaging stations in Snake River Plain

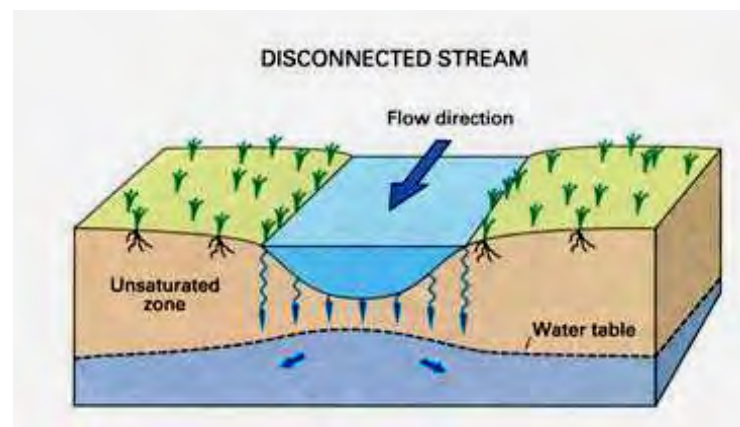
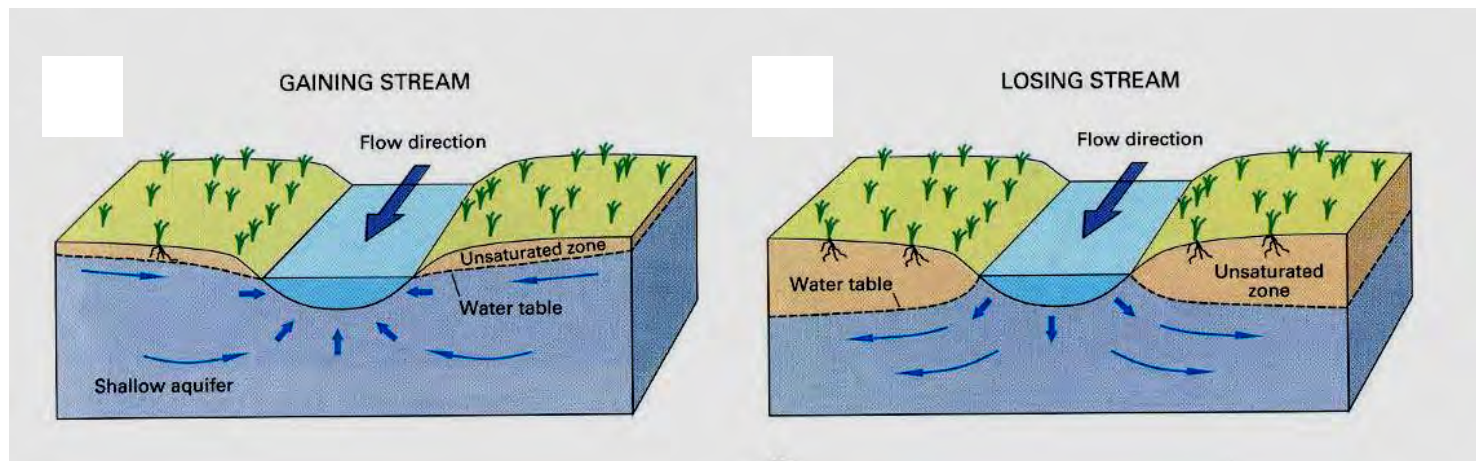


Discharge, cubic feet per second

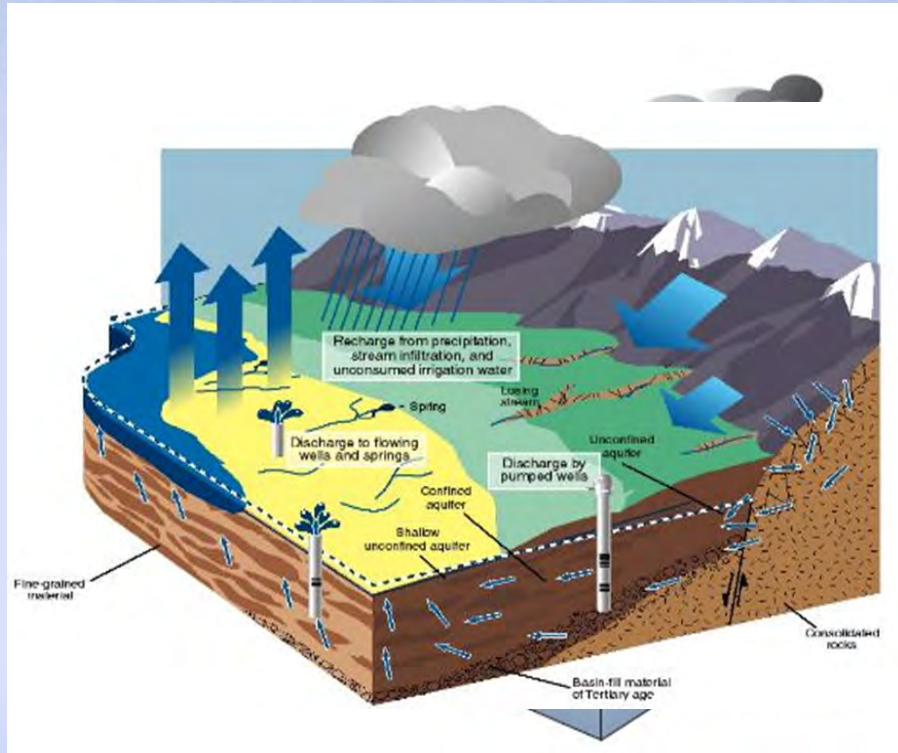
USGS 09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE



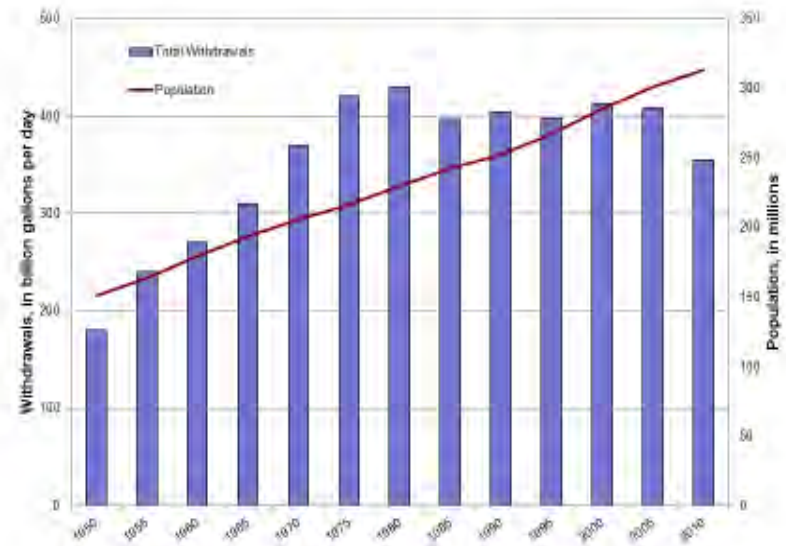
Concepts of groundwater/surface-water interaction



Use/demand



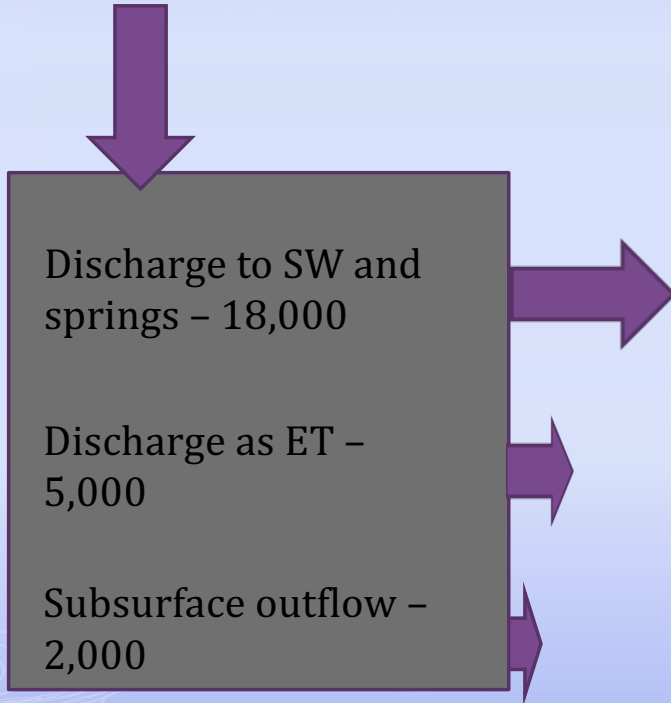
Trends in population and total withdrawals, 1950-2010



... withdrawals from an aquifer must be balanced

Predevelopment conditions

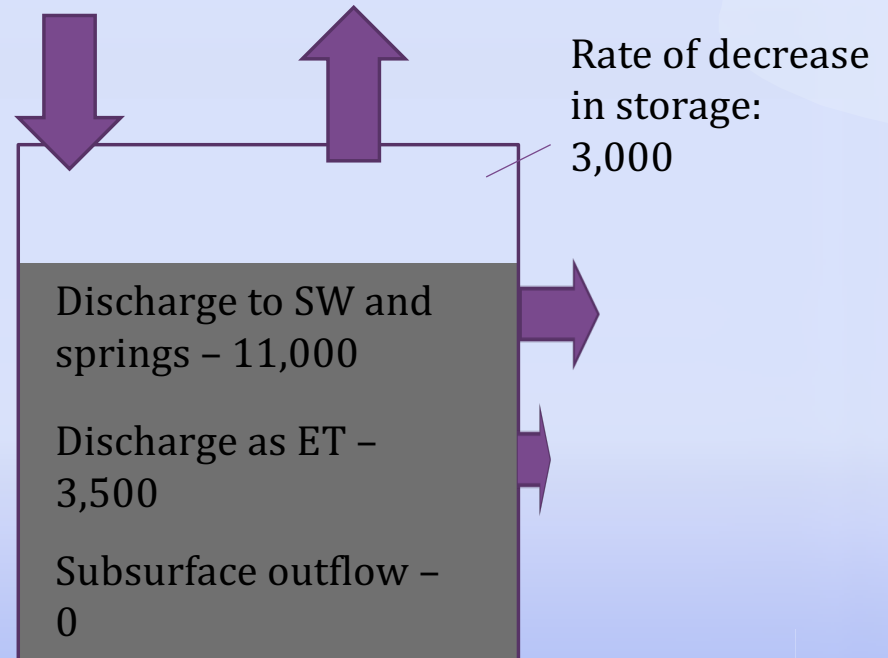
Natural and
Induced recharge
25,000



Declining natural recharge (snowpack) Groundwater development

Natural and
Induced recharge
18,500

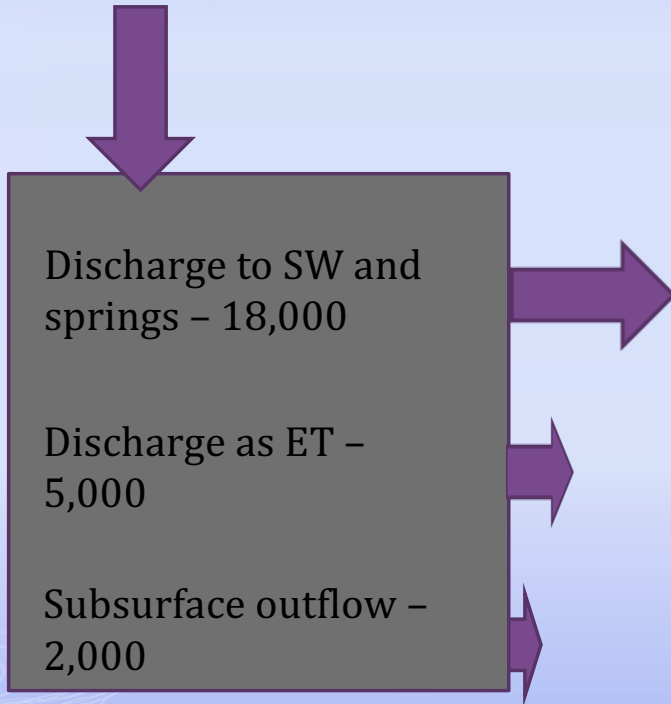
Pumpage
6,500



... withdrawals from an aquifer must be balanced

Predevelopment conditions

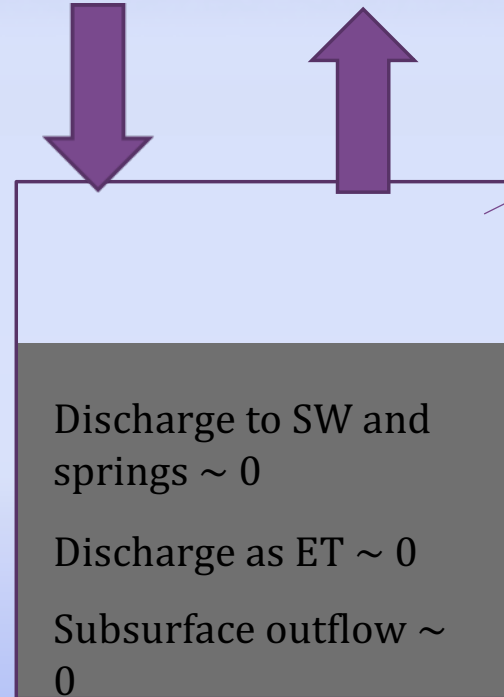
Natural and
Induced recharge
25,000



Groundwater development beyond recharge

Natural and
Induced recharge
25,000

Pumpage
25,000

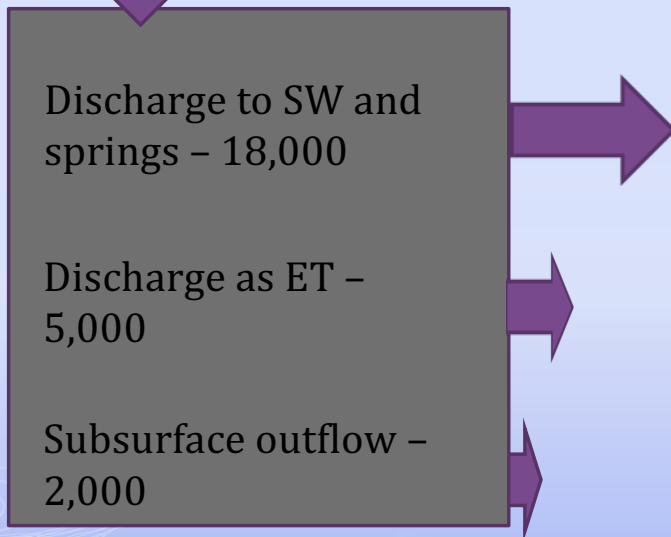


Rate of decrease
in storage ~ 0 in
long term

... withdrawals from an aquifer must be balanced

Predevelopment conditions

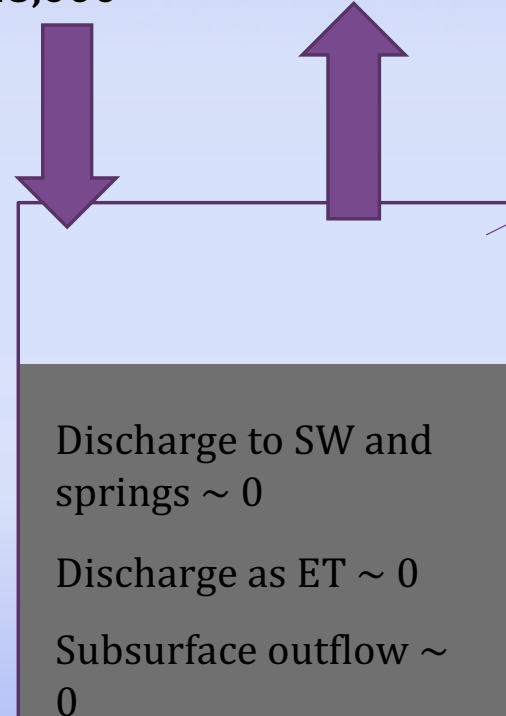
Natural and
Induced recharge
25,000



Groundwater development beyond recharge

Natural and
Induced recharge
28,000

Pumpage
34,000



Rate of decrease
in storage:
6,000



HOME

CONTACT

NEWS & EVENTS

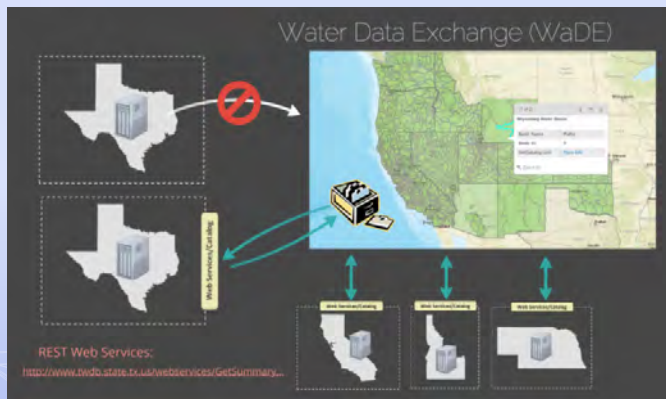
ABOUT WADE

Join the WaDE Community

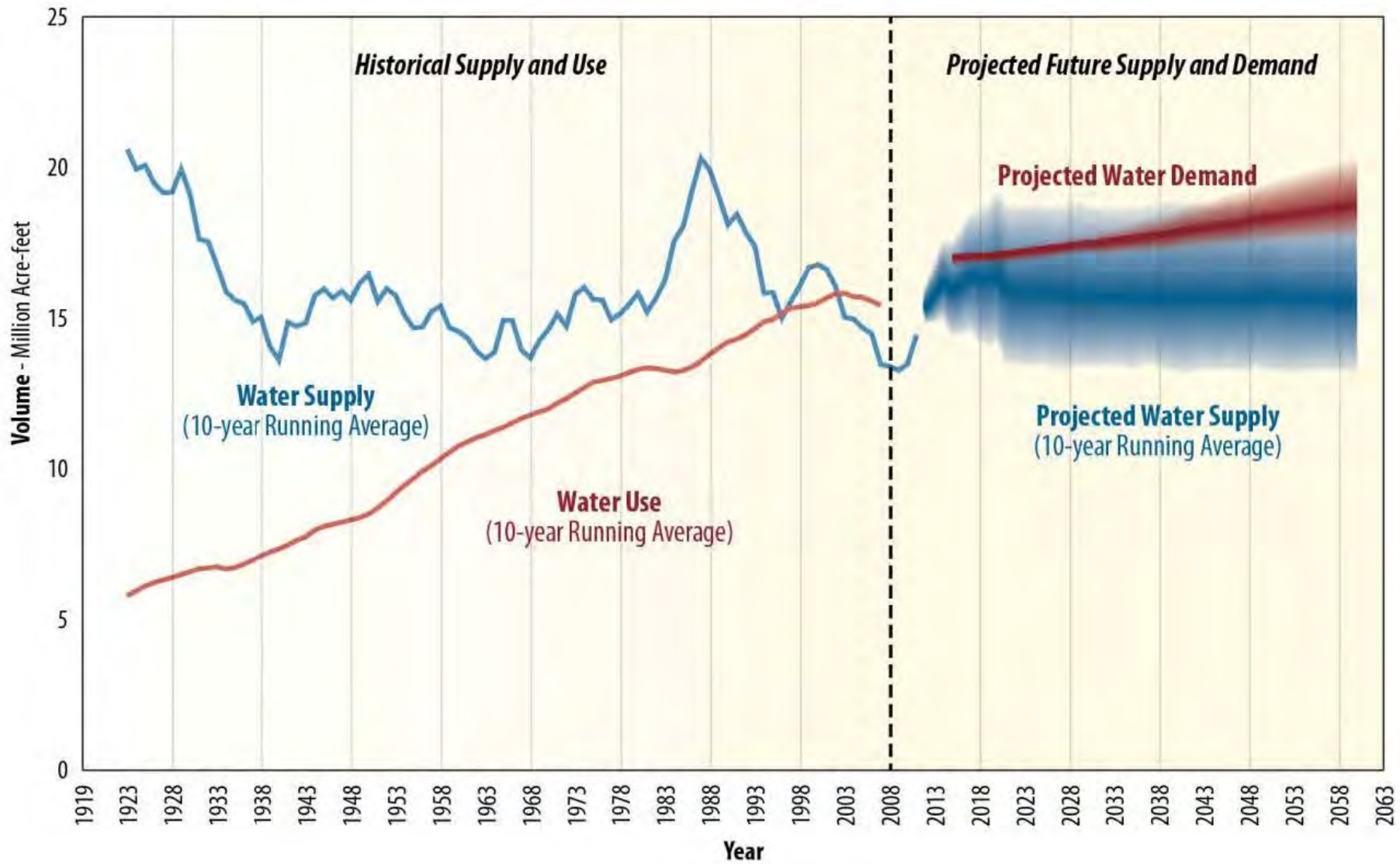


WaDE

The Water Data Exchange or WaDE project enables states to share data with each other and the public in a more streamlined and cost-effective way. WaDE provides access to water allocation, supply, and demand data that are maintained by state and other governmental agencies.



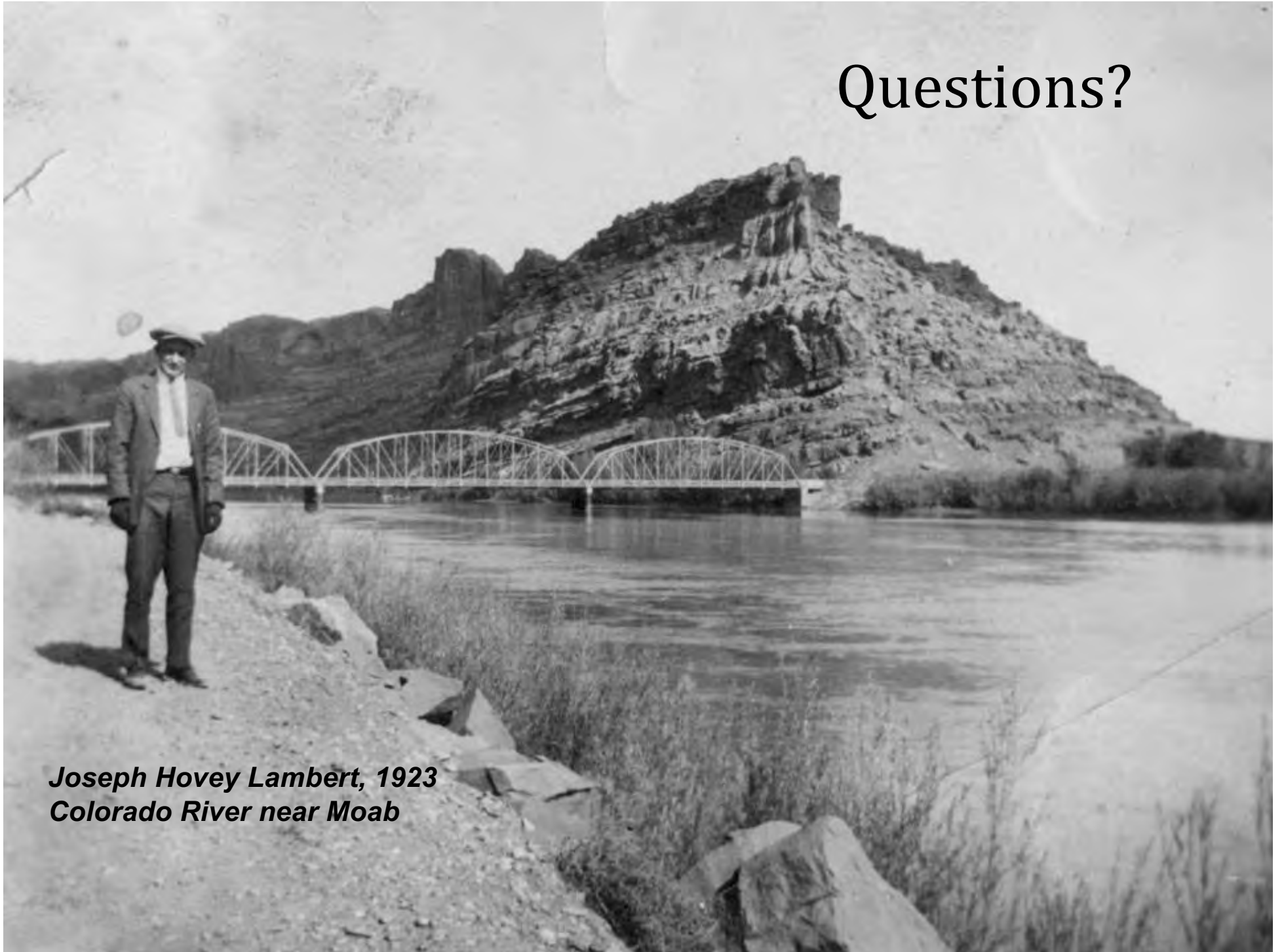
WestFAST played a significant role in supporting the creation and design of the WSWC Water Data Exchange



Colorado River Basin Study - Historical water supply and demand on the left of

Questions?

*Joseph Hovey Lambert, 1923
Colorado River near Moab*



Adjudications: Why do they take so long?

- Sheer number of claims recognized under state law and constitutional protections
- Lack of data on physical and legal water use
- Multiple administrative and judicial processes
- Due process, notice and protests, hearings
- Technical investigations needed to verify claims
- Lack of financial and staff resources
- Numerous unquantified federal/tribal water claims

What can federal agencies do to expedite consideration of their claims in an adjudication?

- Federal agencies should place a higher priority on educating their leaders and applicable staff regarding western water rights.
- Federal agencies should consult with states before asserting water rights claims.
- General stream adjudications pursuant to the McCarran Amendment should be brought in state and not in federal court.
- There must be high-level federal involvement in negotiations and mediation.
- Federal agencies should be given policy direction to ensure that federal claims filed in state adjudications have a sound basis in fact and law.
- Requiring the federal government to provide whatever evidence it may have to substantiate its claims at the time of filing.
- As a matter of policy, federal agencies should pay a fair share of the costs associated with adjudicating their claims in state adjudications.