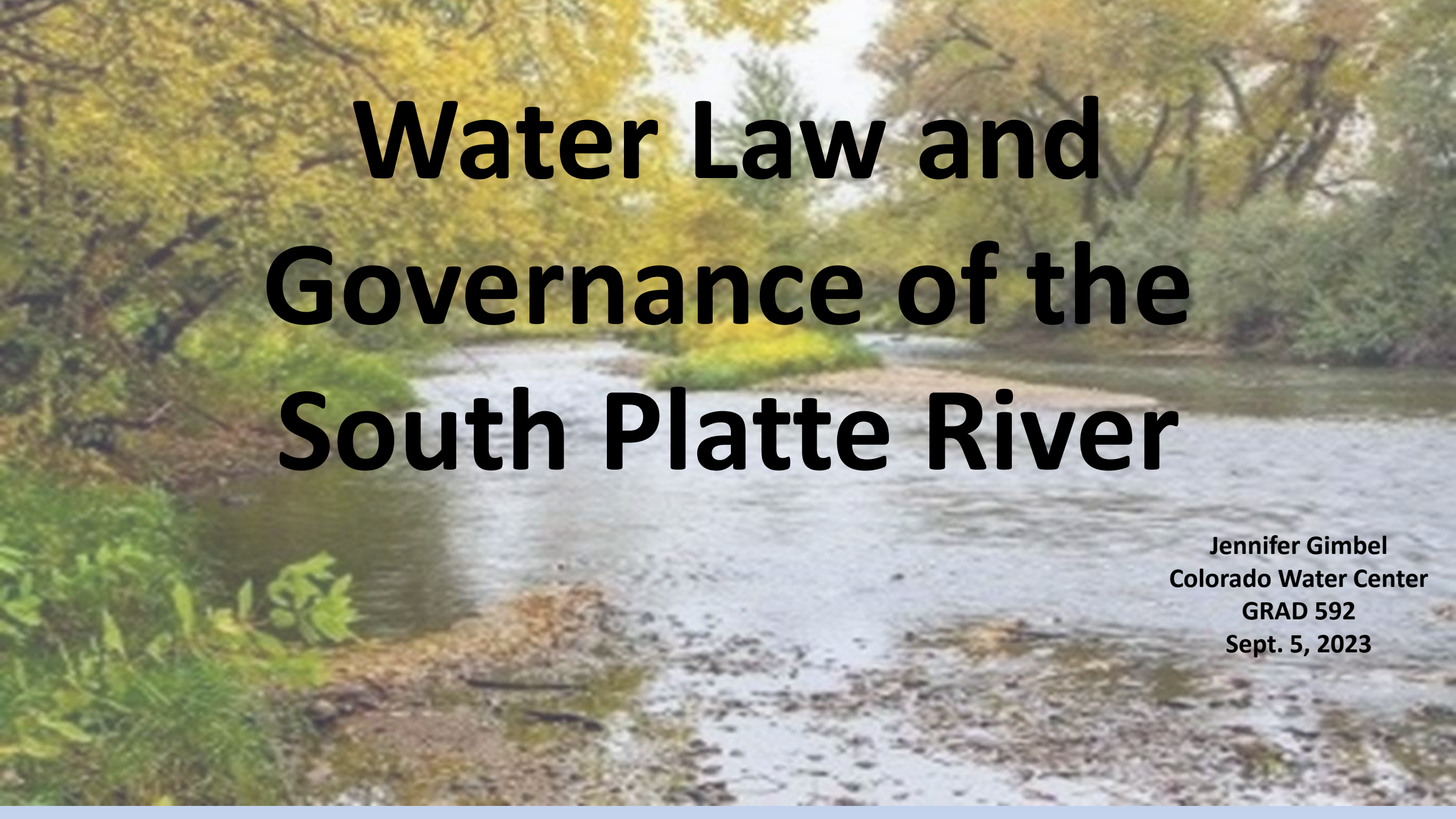
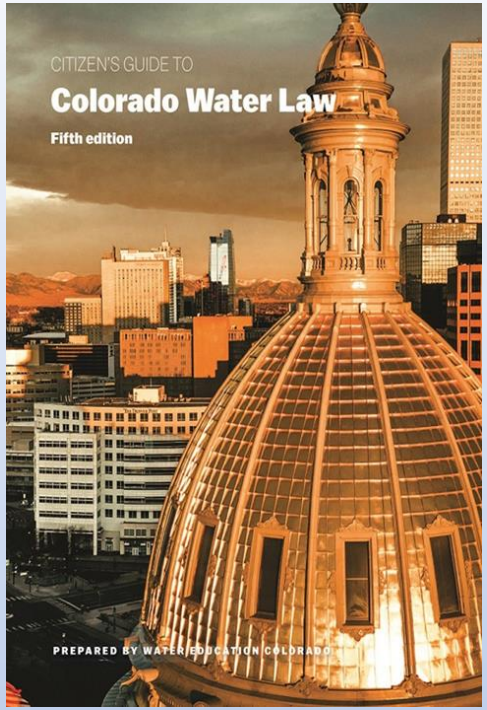
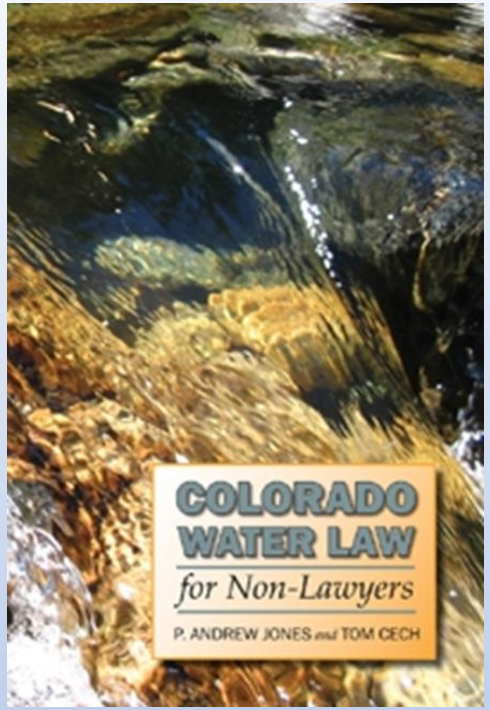


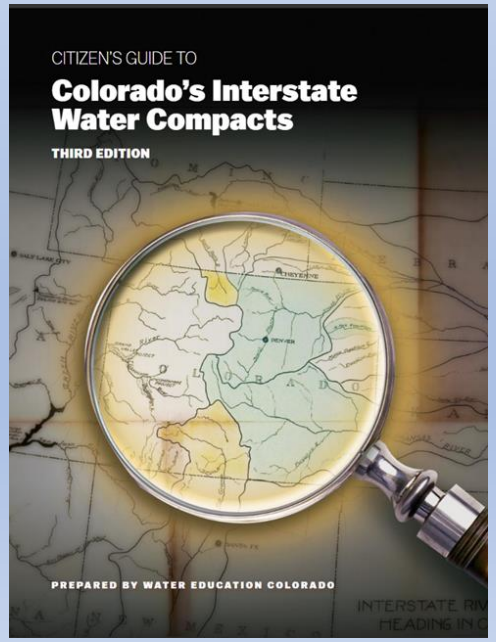
Water Law and Governance of the South Platte River

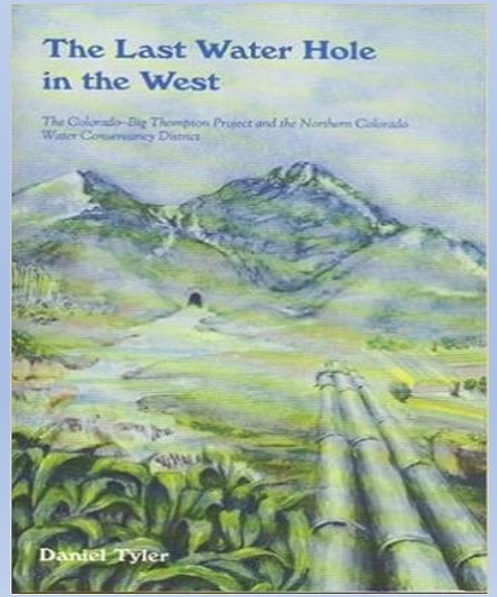
Jennifer Gimbel
Colorado Water Center
GRAD 592
Sept. 5, 2023

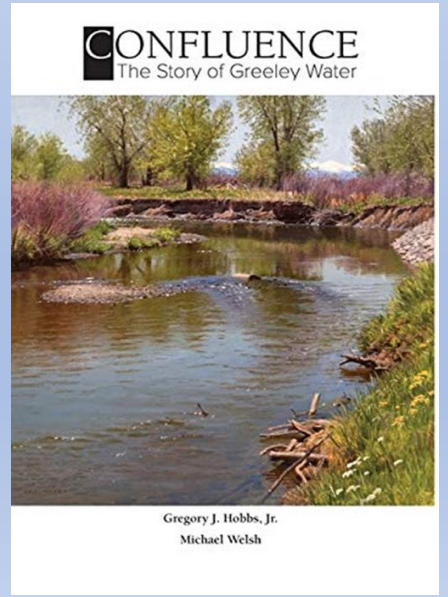
Reference Materials







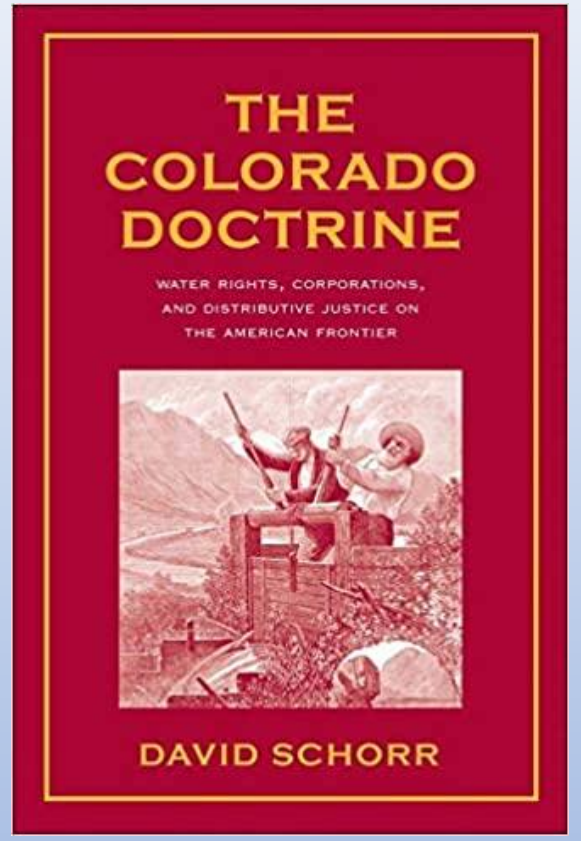




Riparian Water Rights

- "Reasonable use" by owner of land bordering stream or lake
- Upstream and downstream water users are coequal
- Share shortages
- Some states permit its use and require conditions to prevent harm to others.

Development of the Colorado Doctrine

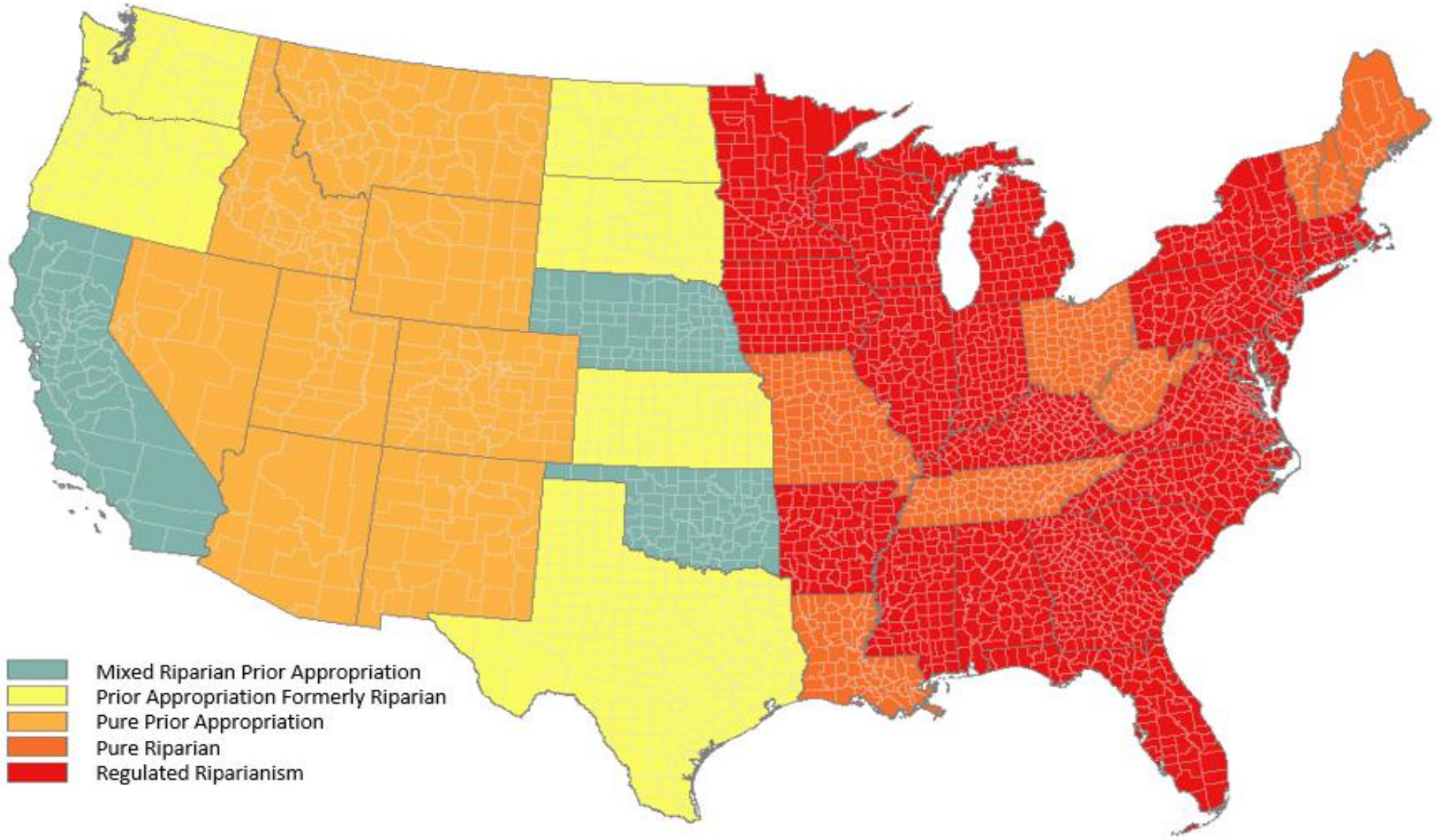


- 1859 Gold Rush in the Rockies.
- Claims were based on first possession
- Any party could use water and take away from stream
- In shortage- “First in time, first in right”
- Rights transferable

Prior Appropriation Doctrine

- Earliest appropriators have the highest priority; “First in time, first in right.”
- Water must be put to beneficial use without waste or speculation.
- Remote uses and transfers allowed.
- Right of use can be forfeited by non-use.

Surface Water Appropriation Governance Systems



Data Source: Christian-Smith, Juliet, et al., 2012.

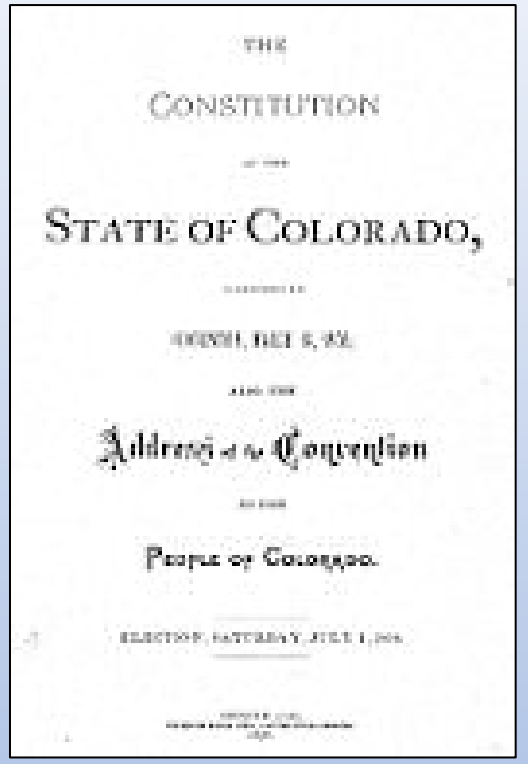
Water Markets LLC (2018)

1876 – Colorado becomes a state

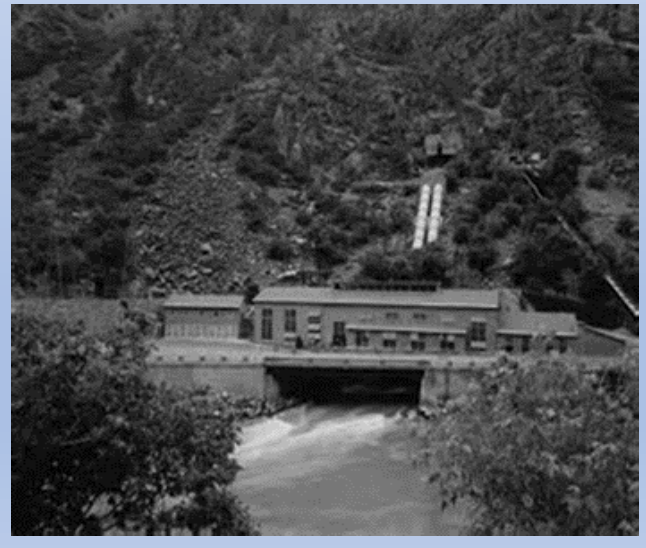
A strict Doctrine of Prior Appropriation is adopted in the state constitution.

"The right to divert the unappropriated waters of any natural stream to beneficial use shall never be denied."

Colorado Constitution 1876

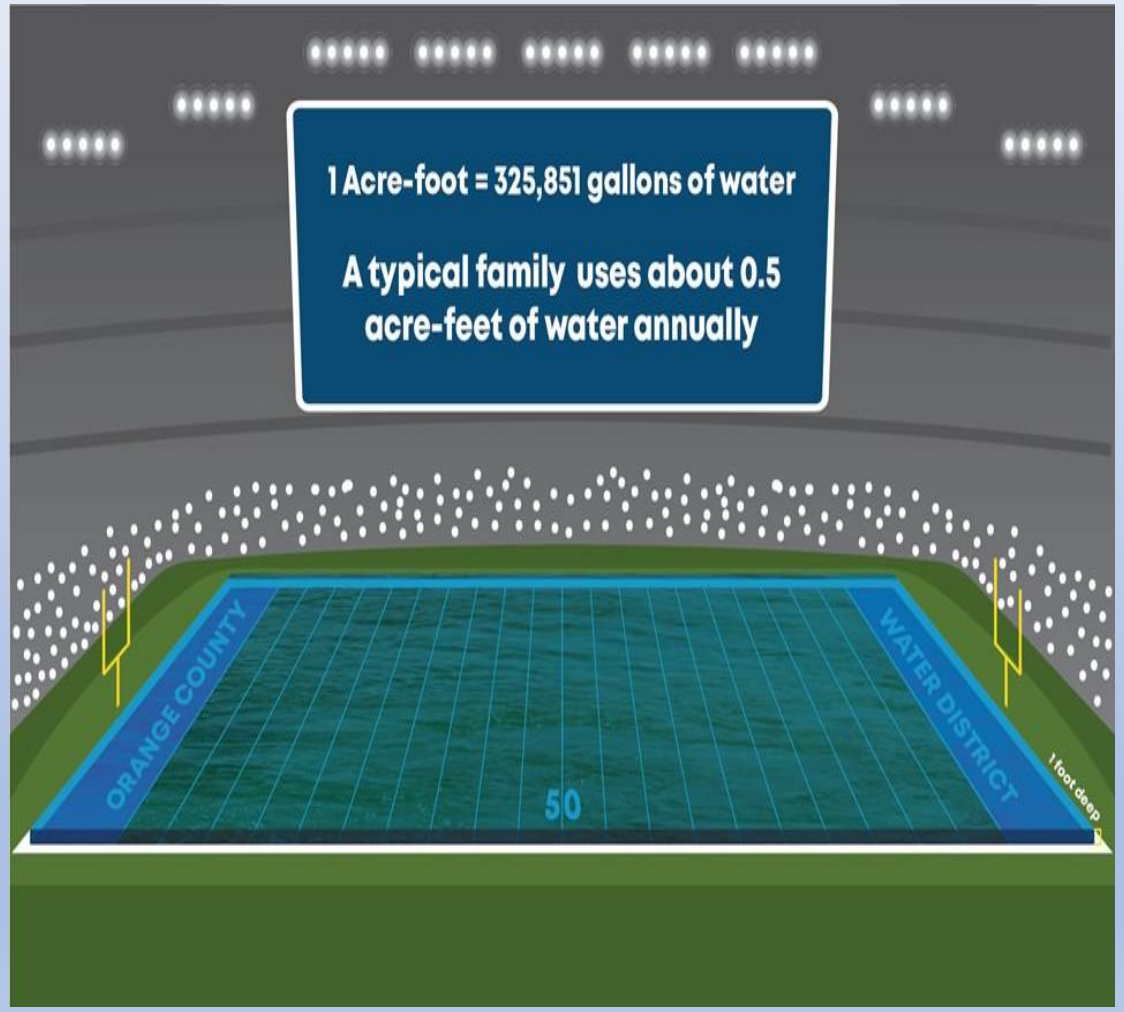

THE
CONSTITUTION
OF THE
STATE OF COLORADO,
Address of the Convention
TO THE
People of Colorado.

Early Beneficial Uses

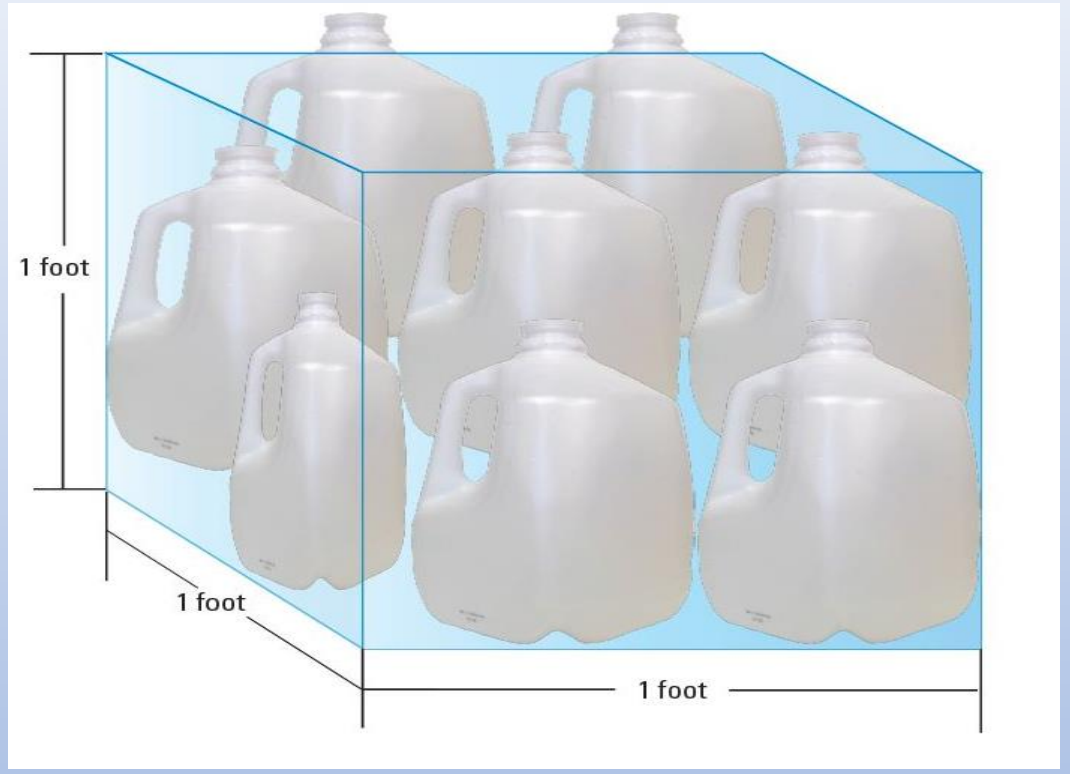


Definition of Beneficial Use Expands

Acre-Foot (AF)



Cubic Feet per Second (cfs)



Flow rate or discharge equal to one cubic foot of water per second. This rate is equivalent to approximately 7.5 gallons per second.

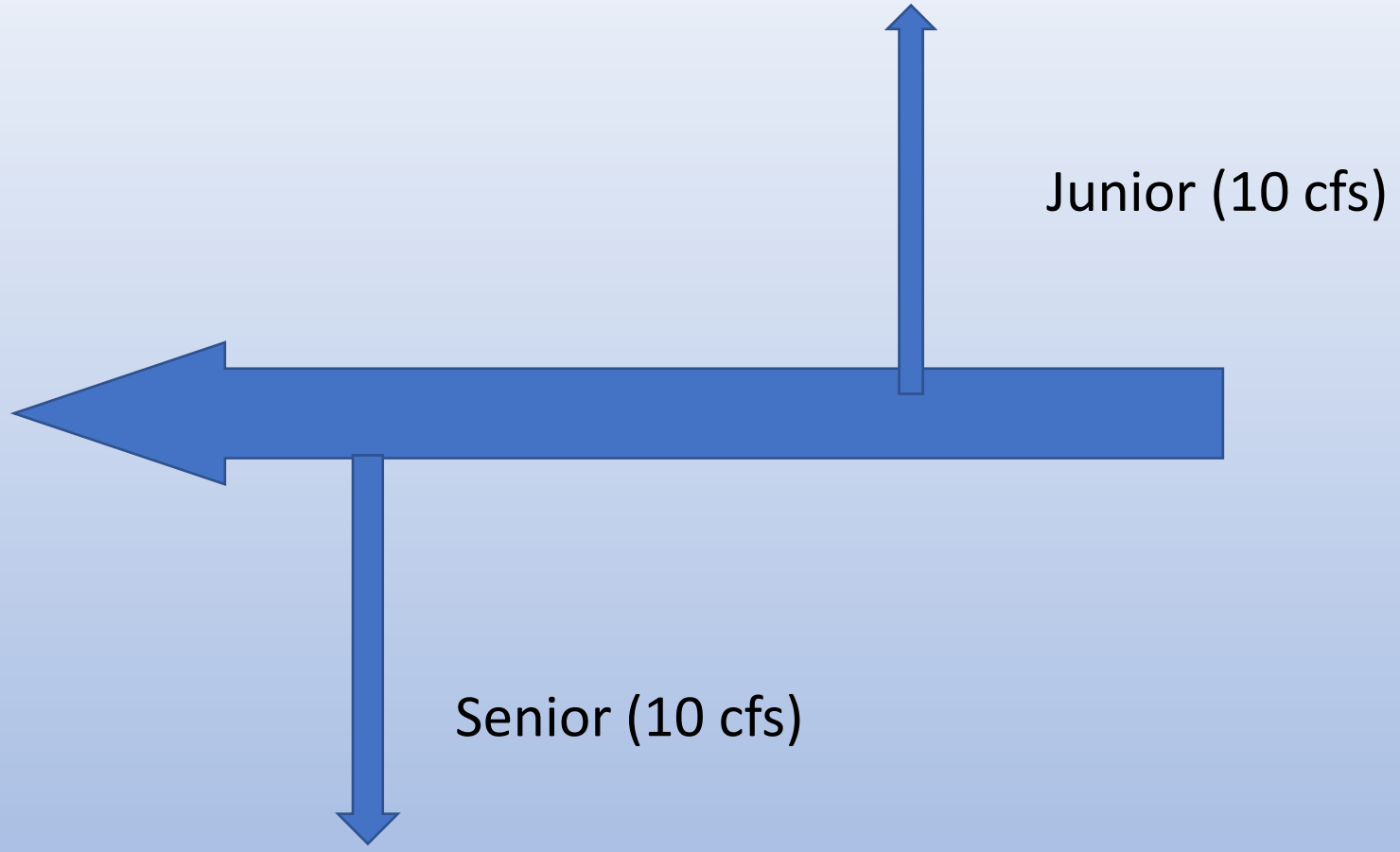
Streamflow Example from USGS

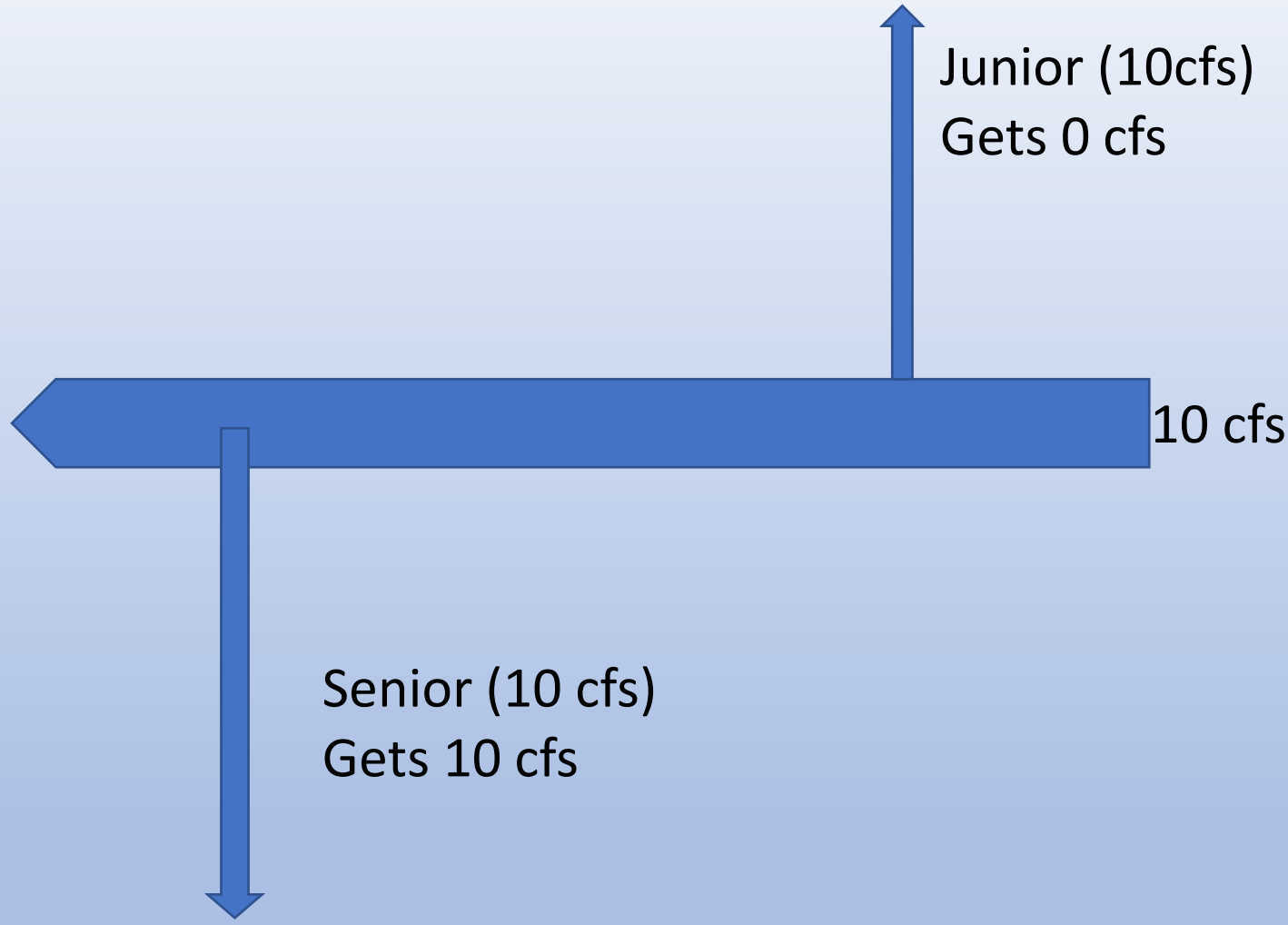
This is a typical flood on Peachtree Creek, shown in "before and after" pictures from the homeowner's 10-foot-high entryway. Base flow at Peachtree Creek (picture on the left) is around 2.5 feet, with a streamflow of about 25 cubic feet per second (cfs). The flood picture (on the right) was taken on May 6, 2003 in the late afternoon when stream stage was about 17 feet. The flood peaked that day at 7:30 PM Eastern Time in the evening, when the stream stage reached 17.77 feet with a corresponding instantaneous streamflow of 6,960 cfs.

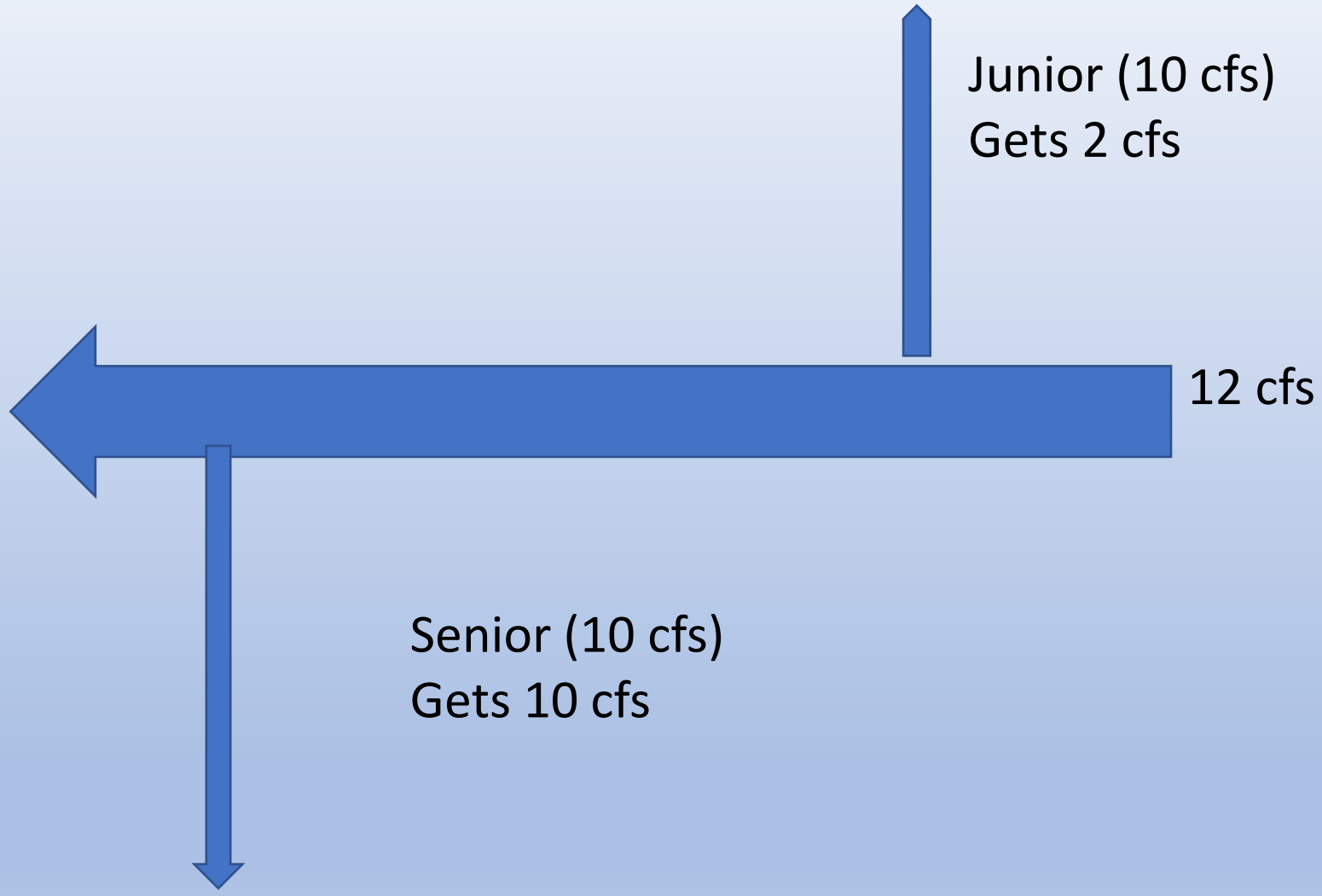
Credit: Howard Perlman, USGS

https://www.usgs.gov/special-topics/water-science-school/science/streamflow-and-water-cycle

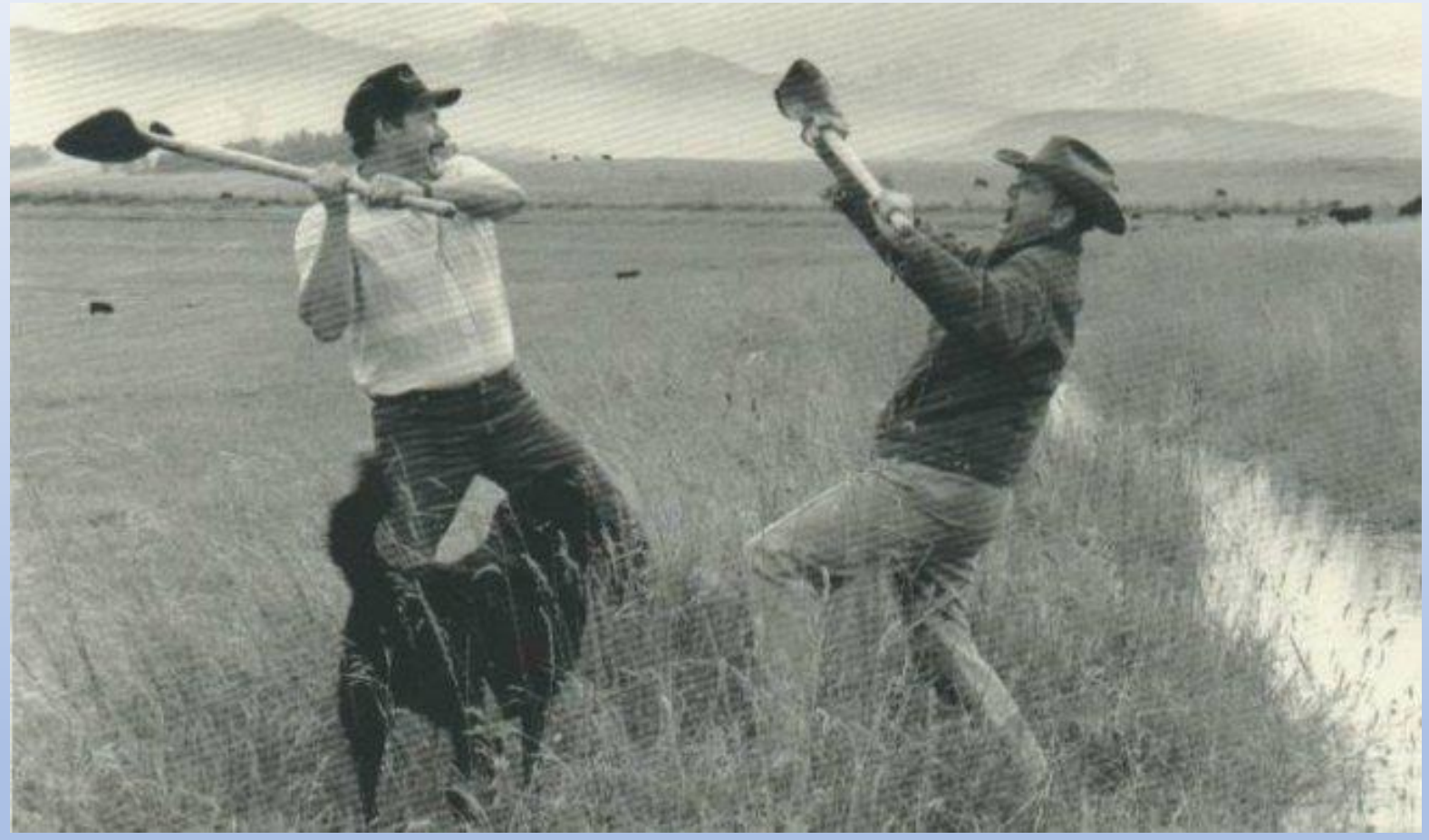
Water Administration Examples



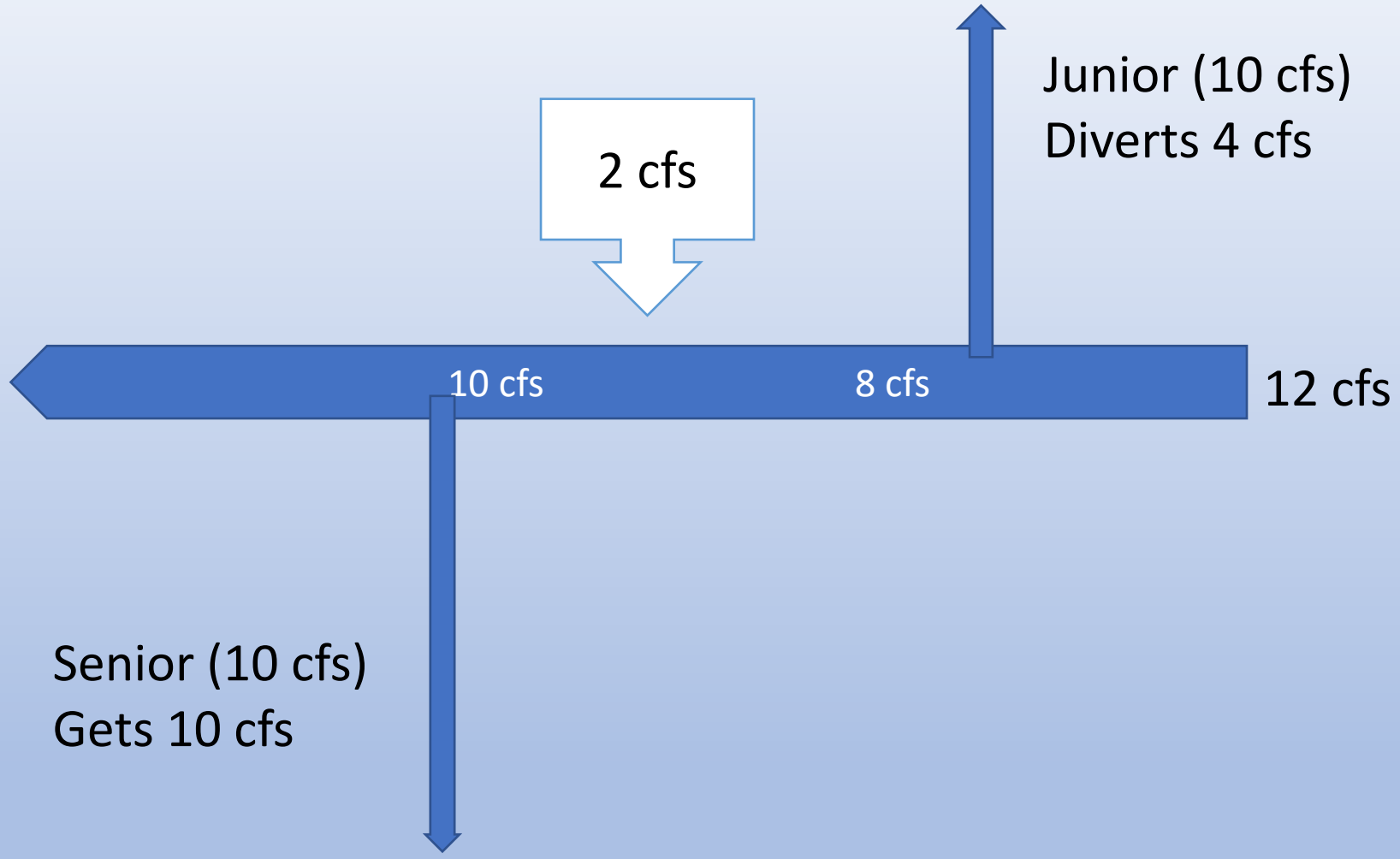

Junior (10cfs)
Gets 0 cfs
10 cfs
Senior (10 cfs)
Gets 10 cfs


Junior (10 cfs)
Gets 2 cfs
12 cfs
Senior (10 cfs)
Gets 10 cfs

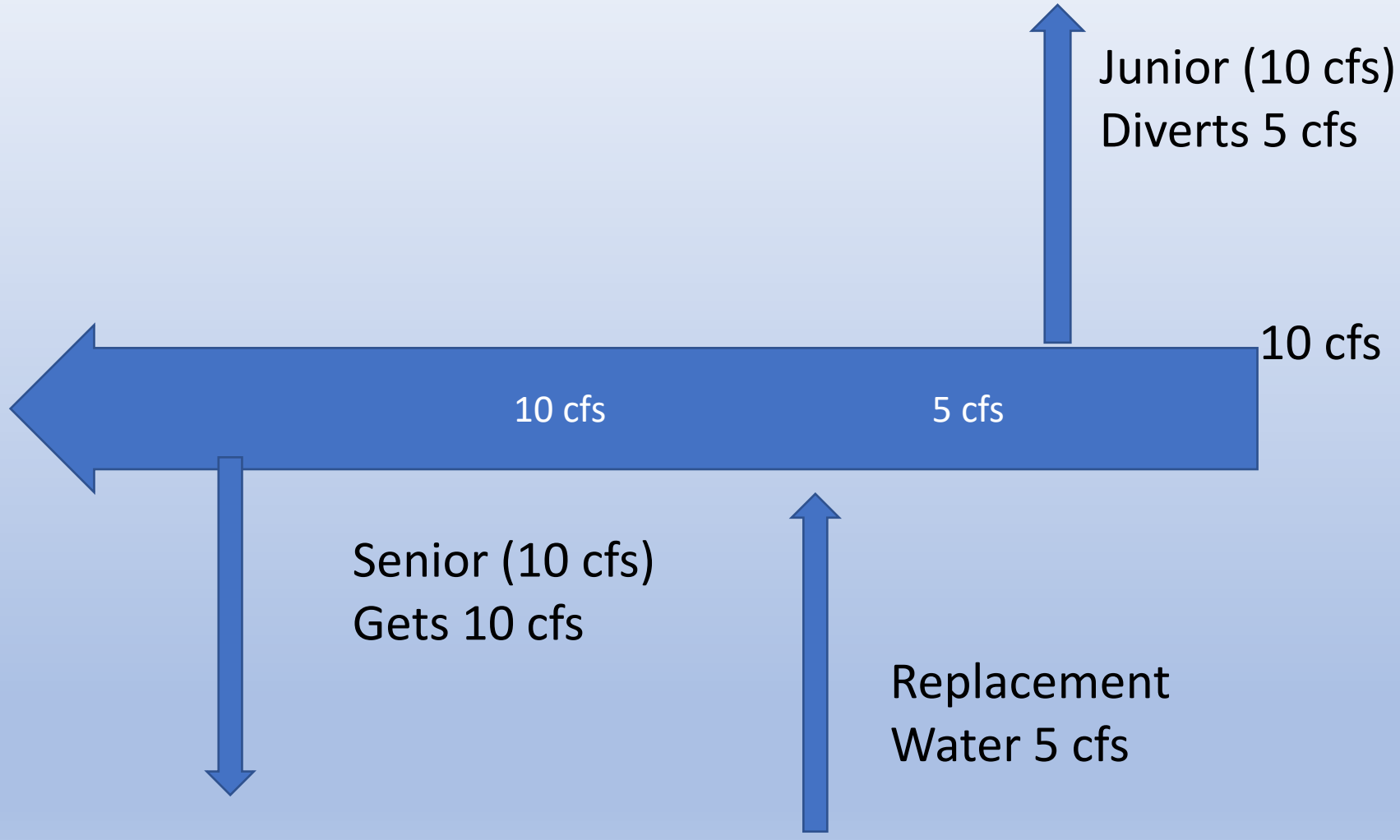
Maxim



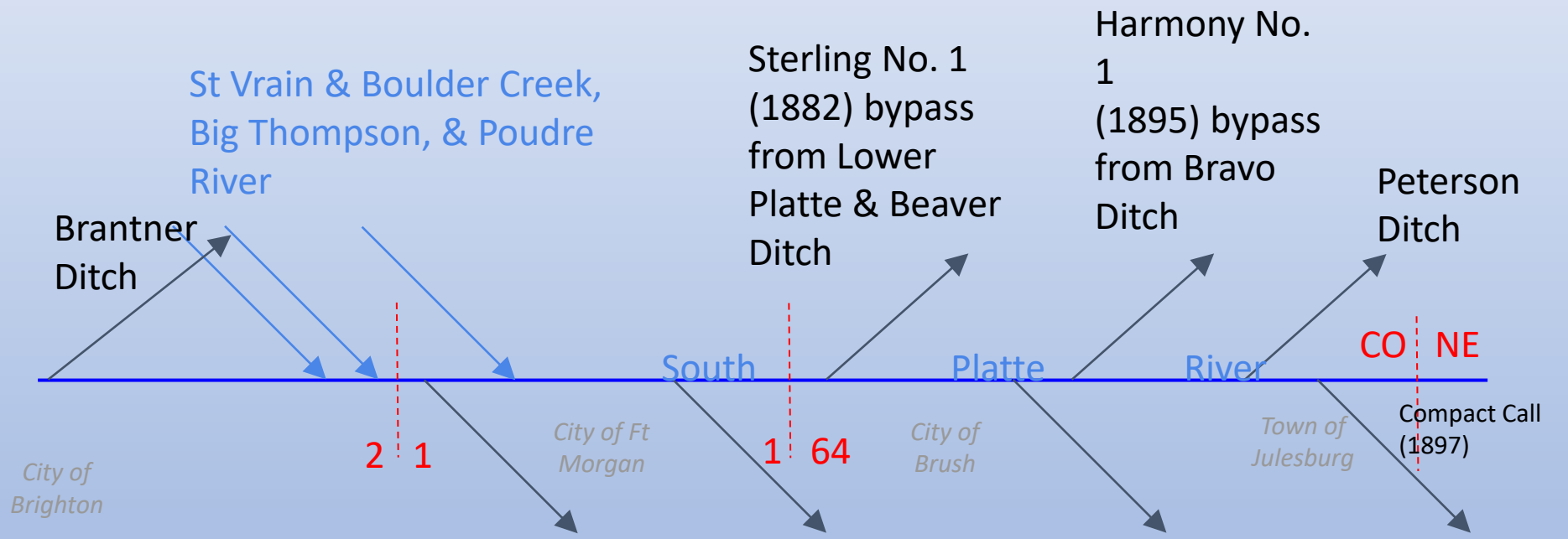
I’d rather be upstream with a shovel than downstream with a water right.

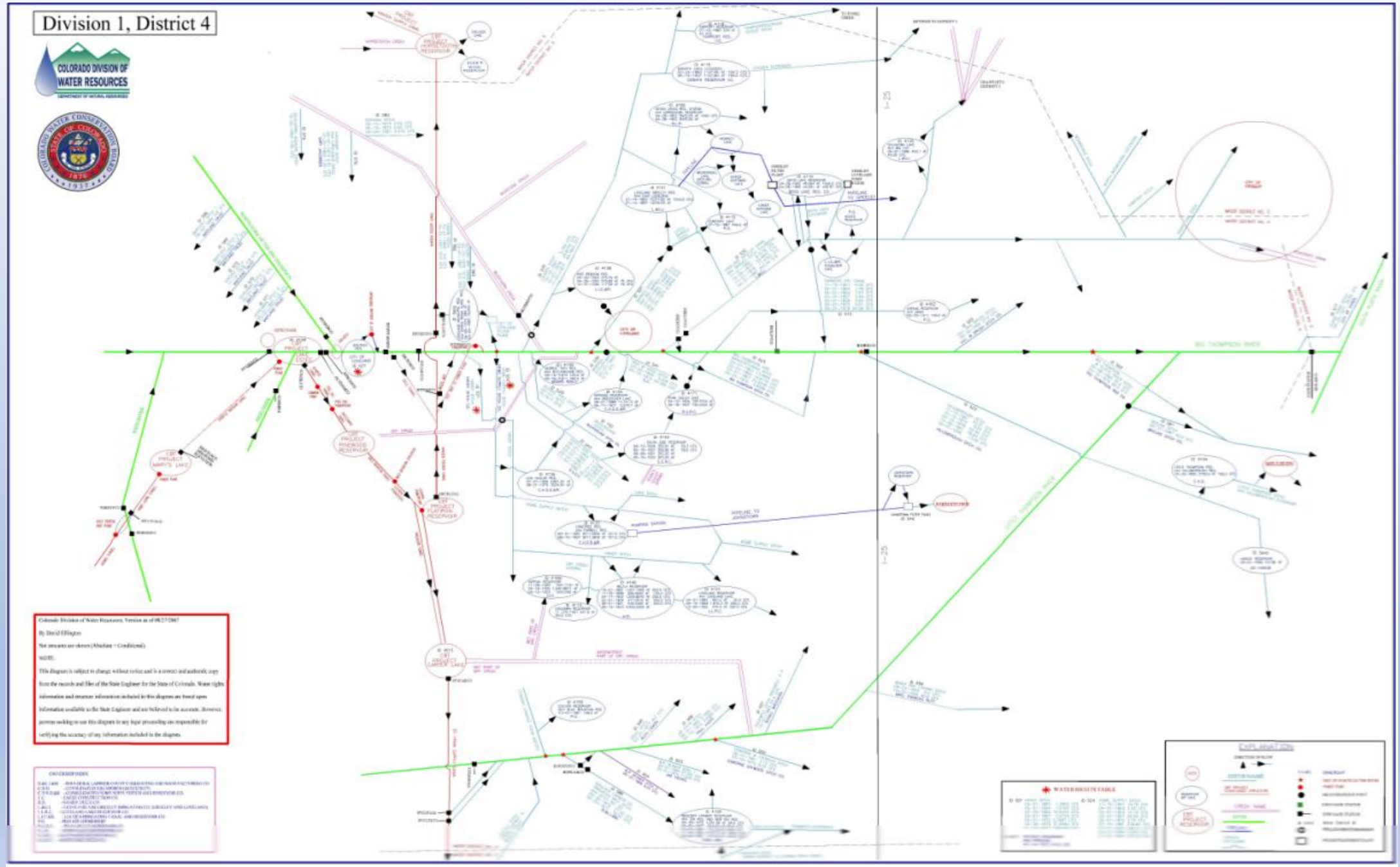

Junior (10 cfs)
Diverts 4 cfs
2 cfs
10 cfs
8 cfs
12 cfs
Senior (10 cfs)
Gets 10 cfs

Water Augmentation Plans

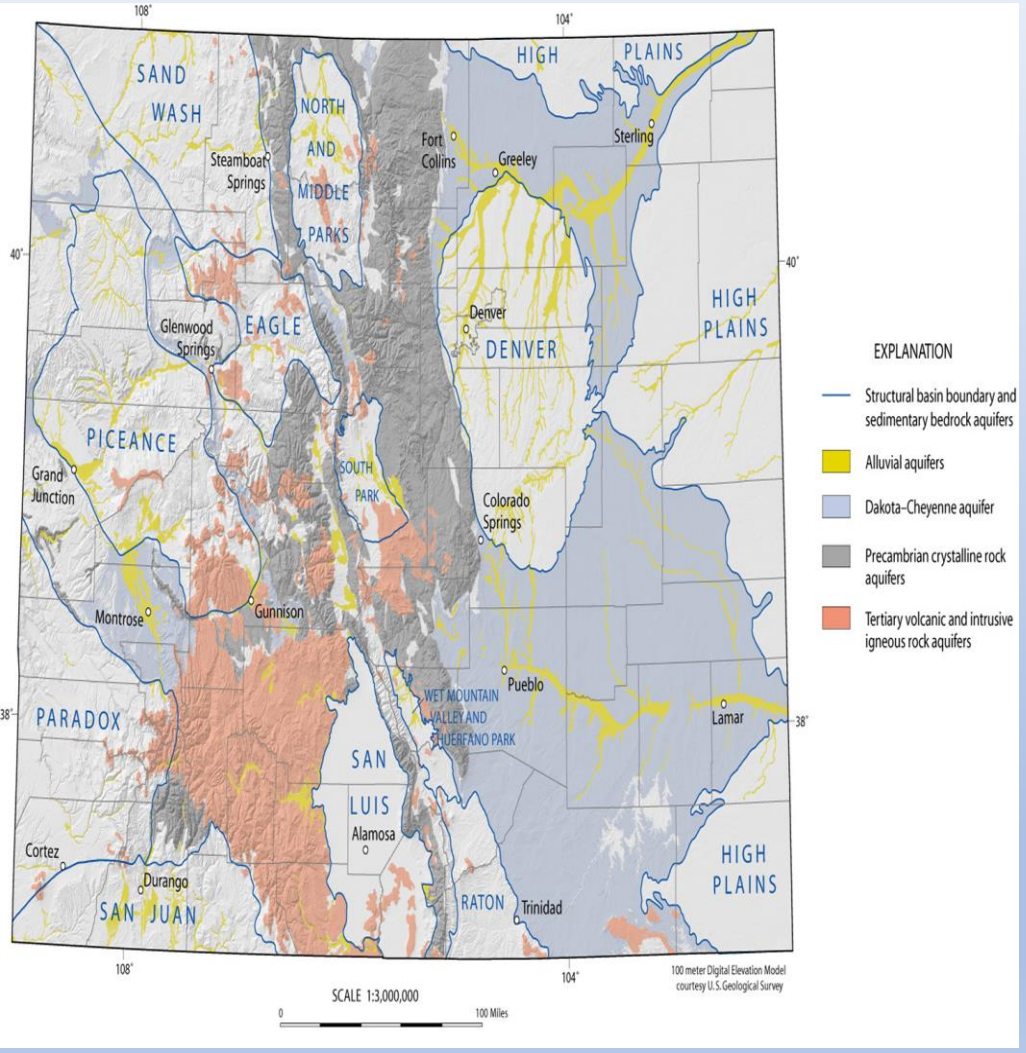


S. Platte River Calls - July 23, 2007




Division 1, District 4
COLORADO DIVISION OF WATER RESOURCES
Colorado Division of Water Resources, Version as of 08/27/2007
By David Ellington
Not amounts are shown (Abstract + Conditional)
NOTE:
This diagram is subject to change without notice and is a correct and authentic copy from the records and files of the State Engineer for the State of Colorado. Water rights information and structure information included in this diagram are based upon information available to the State Engineer and are believed to be accurate. However, persons making to use this diagram in any legal proceeding are responsible for verifying the accuracy of any information included in the diagram.
WATER RESISTIVITY TABLE
EXPLANATIONS

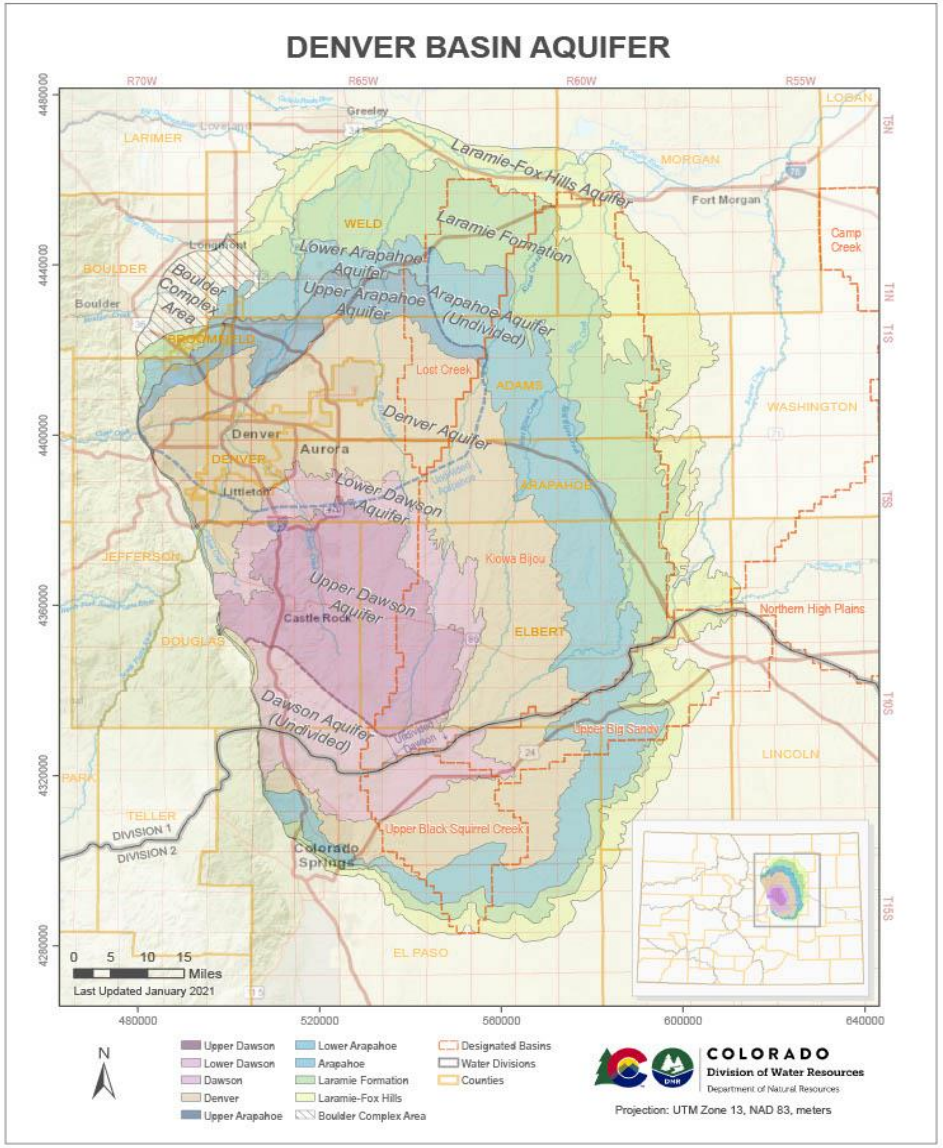
Groundwater



- Tributary: hydraulically connected to surface water
- Non-tributary: pumping will not materially effect surface water
- Not non-tributary: Denver Basin
- Designated Groundwater: not connected to surface water

Denver Basin Aquifers

- Water allocated to overlaying landowners at the rate of 1% per year over 100 years
- Not non-tributary: must replace 4% of pumped water must be returned to stream
- Non-tributary: must replace 2% to stream



Adjudication and Administration of Water Rights

Water Courts

Todd Taylor
District Court Judge/Water Judge

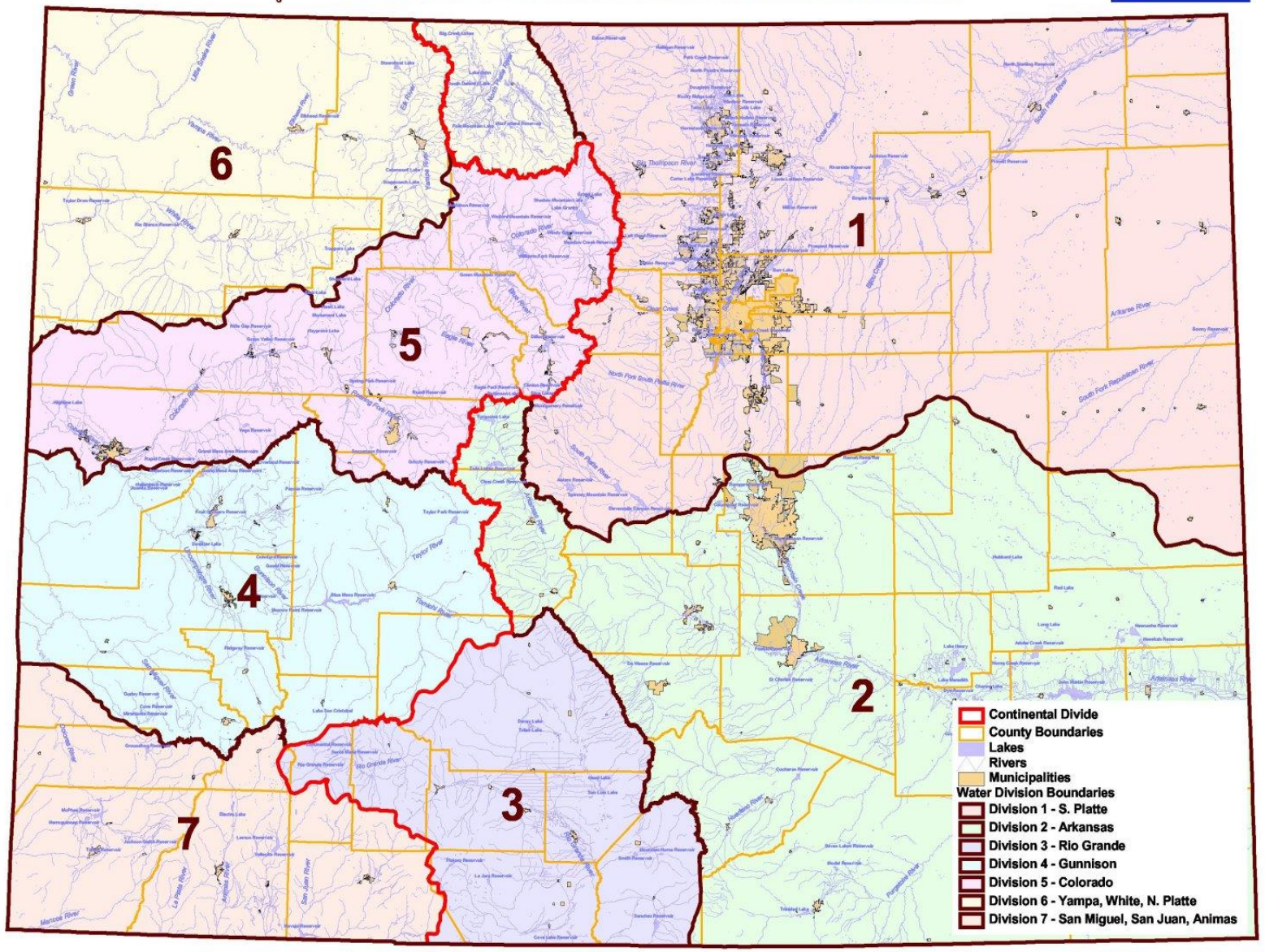
COLORADO
Division of Water Resources
Department of Natural Resources

Kevin Rein
State Engineer

COLORADO RIVER WATER CONSERVATION DISTRICT

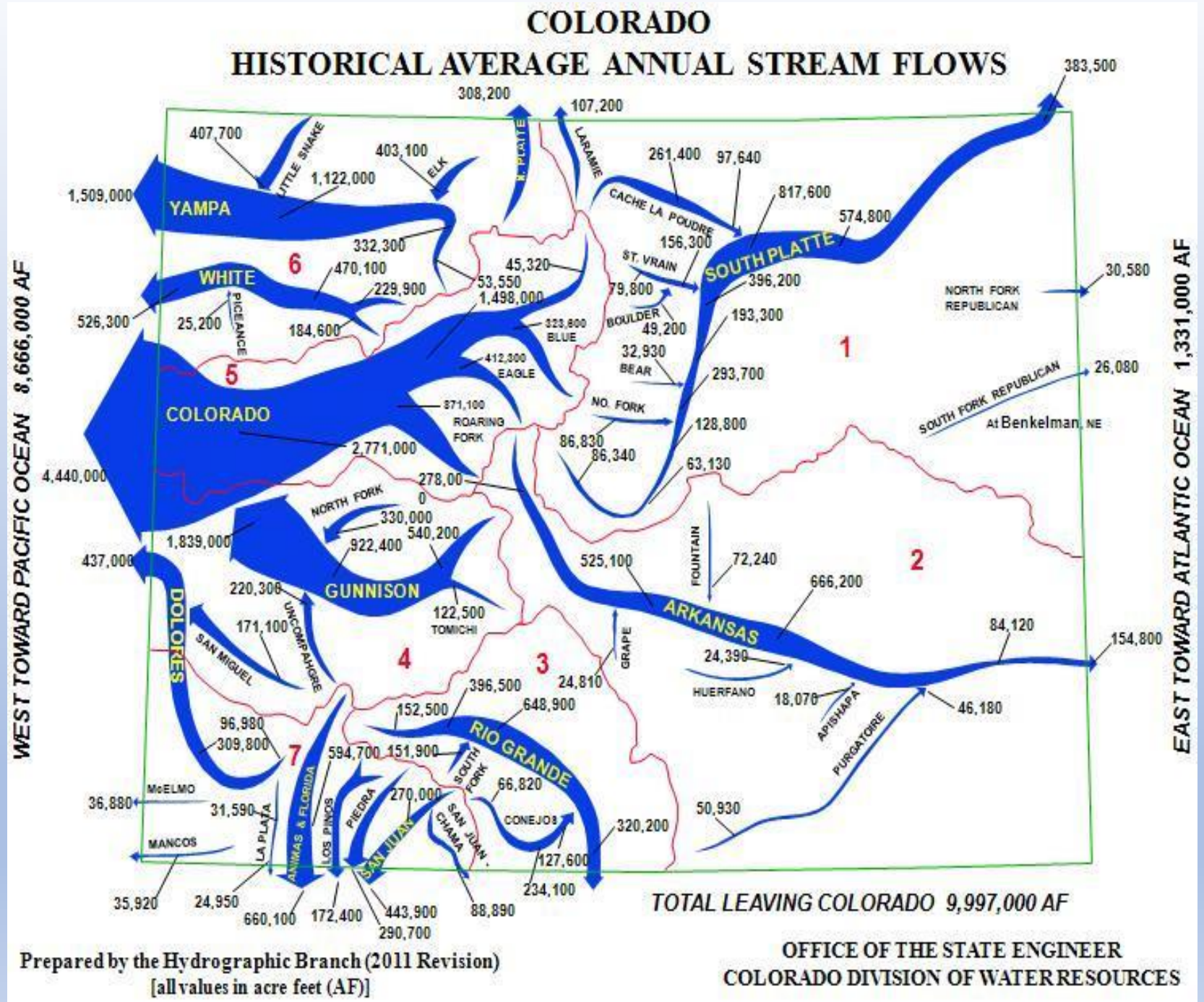
Water Divisions of Colorado

DIVISION V WATER RESOURCES



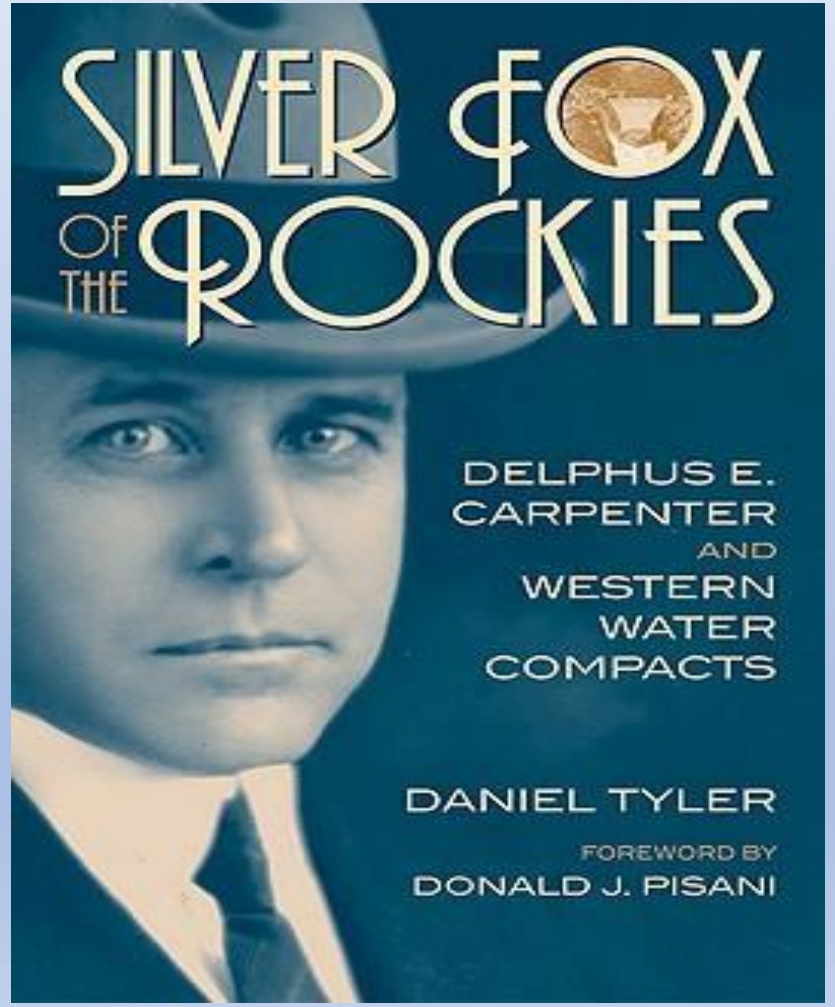
Colorado State Engineer
Division of Water Resources

- Administers water rights (curtail or adjust diversion)
- Issues water well permits
- Represents Colorado in interstate water compact proceedings
- Monitors streamflow and water use
- Participates in water court
- Approves construction and repair of dams and performs dam safety inspections,
- Issues licenses for well drillers and assures the safe and proper construction of water wells
- Maintains numerous databases of Colorado water information.



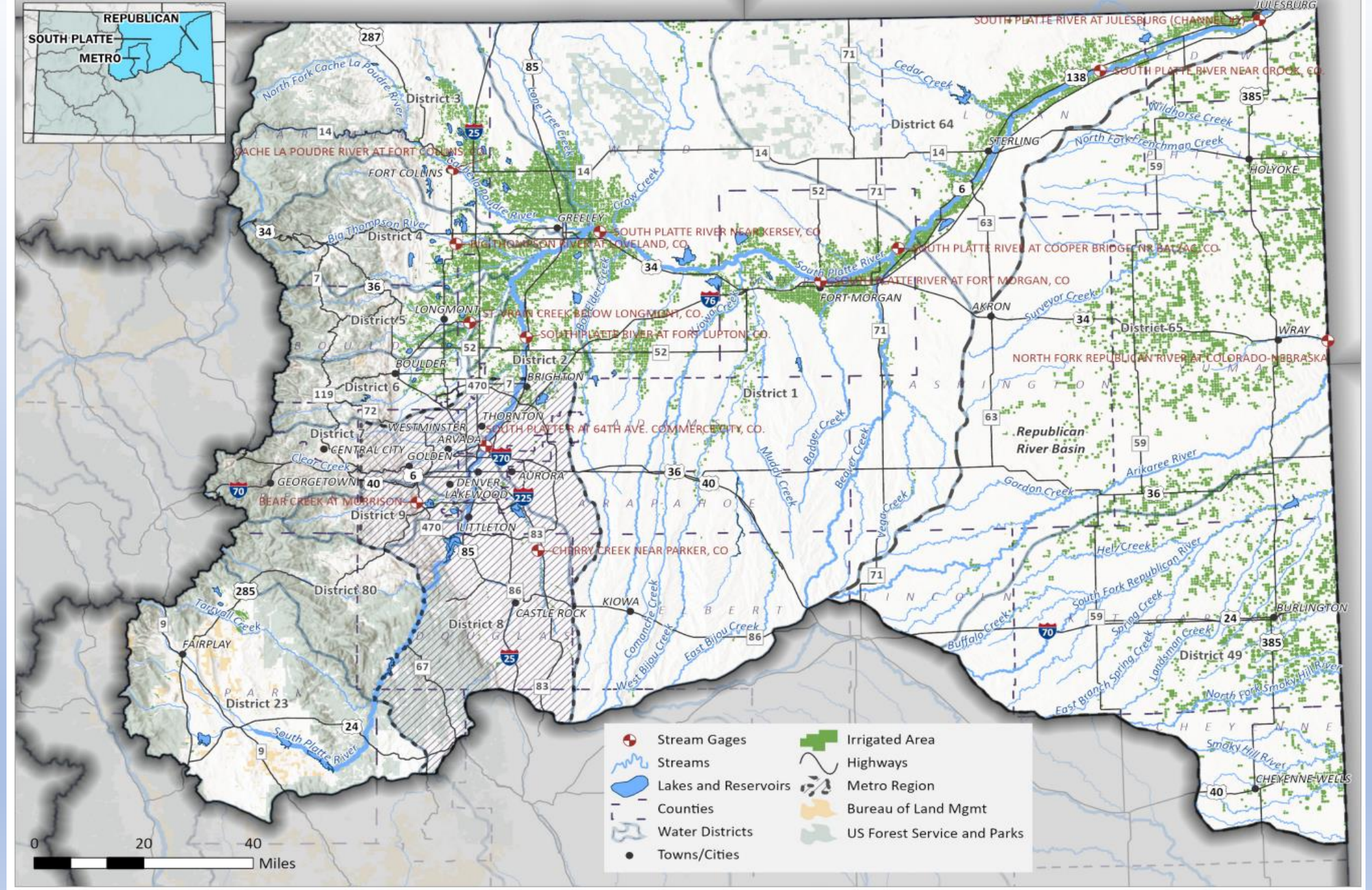
Sharing Colorado's Rivers

Delphus E. Carpenter
Father of Interstate Compacts

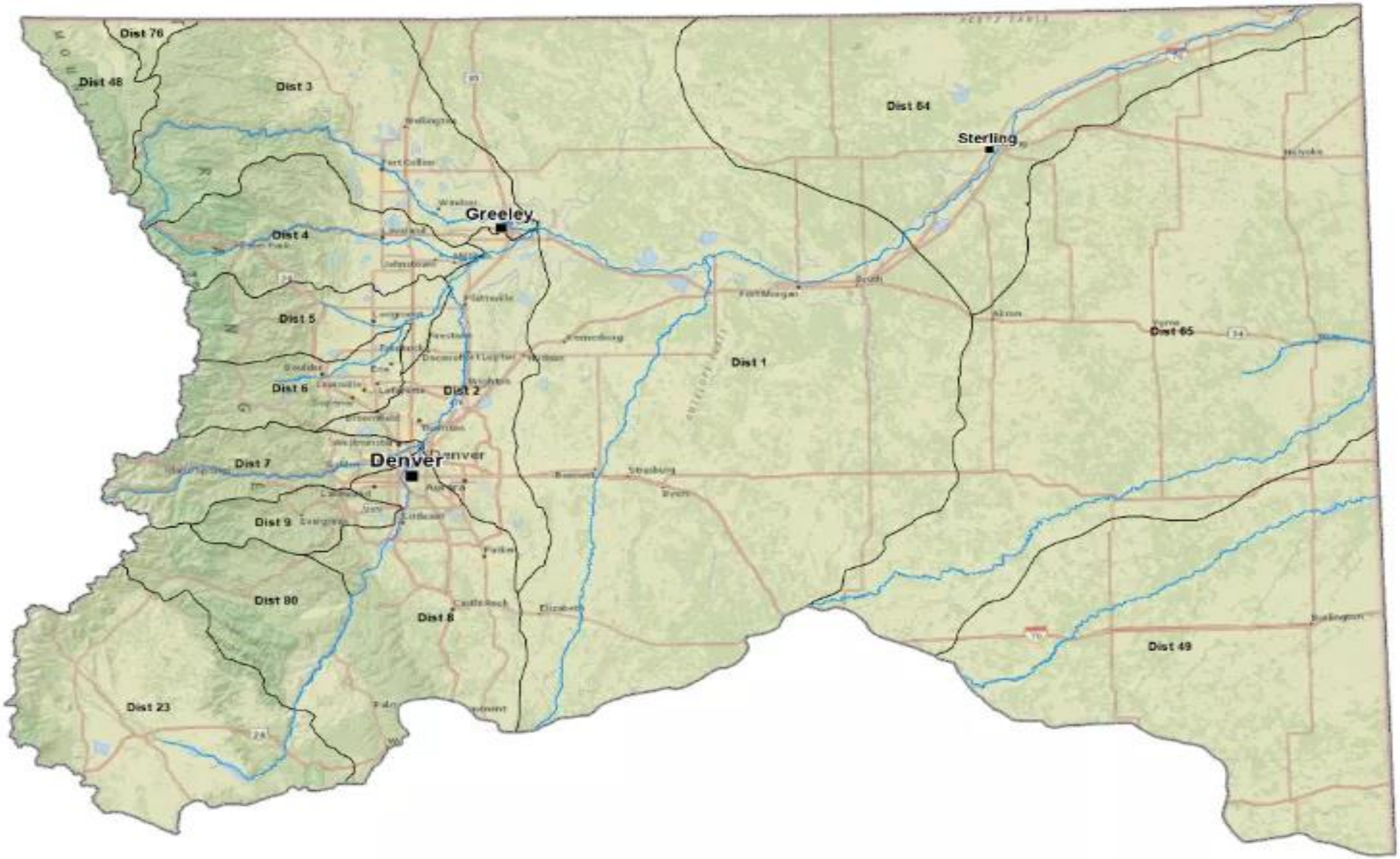


Colorado Interstate Compacts & U.S. Supreme Court Decrees

- 1922 Colorado River Compact
- 1922 La Plata River Compact
- 1923 South Platte River Compact
- 1938 Rio Grande Compact
- 1942 Republican River Compact
- 1944 Amended 1963 Costilla Creek Compact
- 1948 Upper Colorado River Compact
- 1949 Arkansas River Compact
- 1969 Amended Animas-LaPlata Project Compact
- Wyoming v Colorado (Laramie River Decree) 1922, amended 1957
- Nebraska v. Wyoming (North Platte Decree) (1945)



South Platte Basin Implementation Plan


Dist 76
Dist 48
Dist 3
Dist 64
Sterling
Greeley
Dist 4
Dist 5
Dist 1
Dist 65
Dist 6
Dist 2
Denver
Dist 7
Dist 9
Dist 80
Dist 8
Dist 49
Dist 23

South Platte River Compact (1923)

- Divided into upper and lower segments in Colorado
- Apportioned river in two seasons:
  - April 1 – October 15 (irrigation)
  - October 16 – March 31 (non-irrigation)
- During irrigation season:
  - Colorado must deliver 120 cfs to state line.
  - Only in district 64, water rights junior to 1897 may be curtailed to meet delivery obligations
- During non-irrigation season no restrictions on diversions in Colorado for compact purposes
- Colorado has continued to meet its obligations under the compact

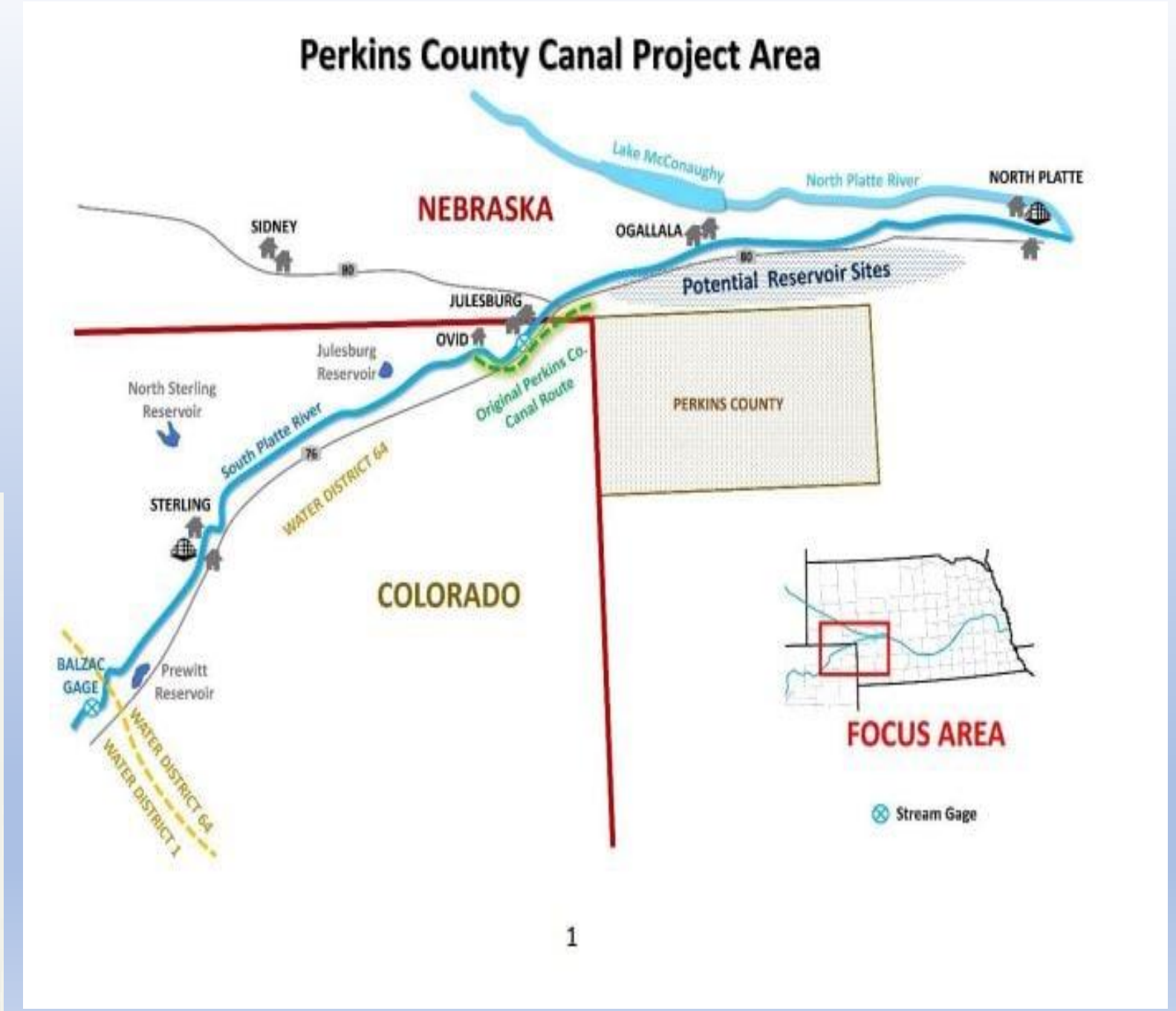
Whiskey's for Drinking
Water's for Fighting

Perkins County Canal
Article VI South Platte River Compact

- Colorado consents to the construction of the canal and diversion of up to 500 cfs for irrigation in Nebraska during the non-irrigation season.

- Colorado is NOT required to deliver 500 cfs to the canal. Canal gets whatever is available in river.

- Colorado reserves “the prior, preferred and superior right to store” 35,000 acre-feet if canal diverts from river.


Perkins County Canal Project Area
Lake McConaughy
North Platte River
NORTH PLATTE
NEBRASKA
SIDNEY
OGALLALA
80
Potential Reservoir Sites
JULESBURG
OVID
Julesburg Reservoir
North Sterling Reservoir
Original Perkins Co-Canal Route
PERKINS COUNTY
South Platte River
76
WATER DISTRICT 64
STERLING
COLORADO
BALZAC GAGE
Prewitt Reservoir
WATER DISTRICT 64
WATER DISTRICT 1
FOCUS AREA
Stream Gage

COLORADO WATER CENTER

COLORADO STATE UNIVERSITY