

Multi-State Salinity Coalition

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Drought – Mid 1950's



Water Development in the West

Arid West



Water Rights

- Riparian:
 - Based on the ownership of the land adjacent to a water body, such as a river, stream, or lake.
 - Originating from English common law, these rights are tied to the property's proximity to the water source.



Water Rights

- Prior Appropriation:
 - First in time, first in right, meaning the first person or entity to use the water for a beneficial purpose obtains the right.
 - Originating from water-scarce regions like the western United States during the gold rush era, prioritizes efficient water allocation.



Western Water

- Homestead Act – 1862
- Provided land to settlers
- ONLY if productive
- Irrigation to transform the land



Western Water

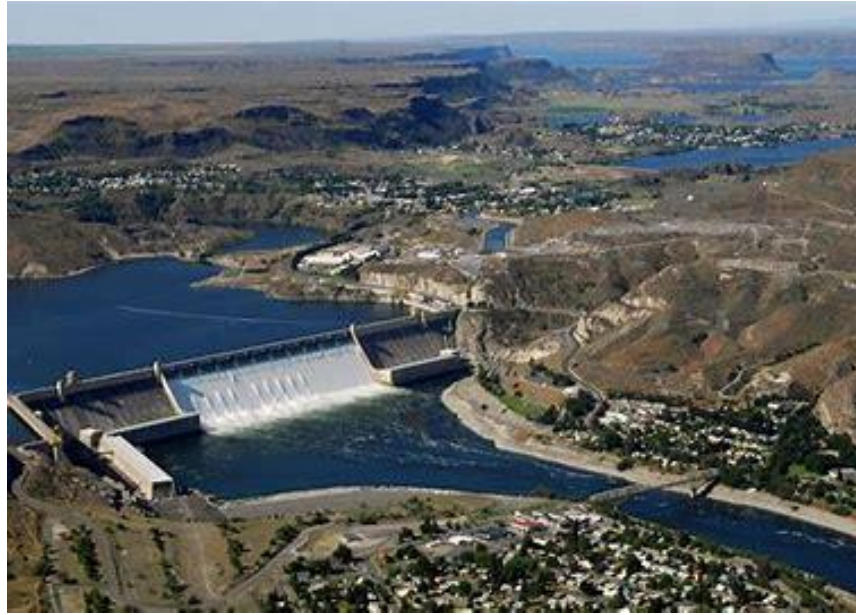
Reclamation Act – 1902

Reclamation Service

Large scale irrigation projects



Iconic Structures



Urbanization



Law of the River

The Colorado River Compact of 1922

The cornerstone of the "Law of the River",

Lower and upper basins each having the right to develop and use 7.5 million acre-feet annually.



Law of the River

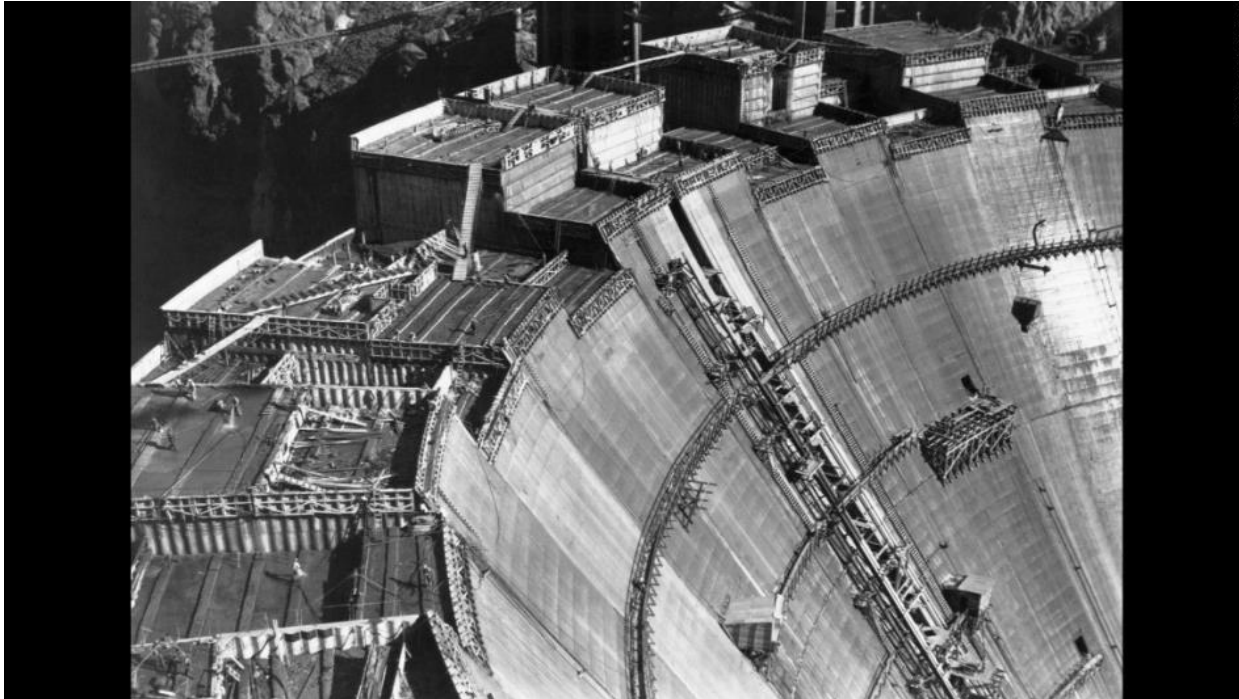
The Boulder Canyon Project Act of 1928

Authorized the construction of Hoover Dam
Apportioned the lower basin's 7.5 maf
AZ (2.8 maf), CA (4.4 maf), and NV (0.3 maf).

California Seven Party Agreement of 1931

Settled the conflict between California
agricultural and municipal interests.

The seven principals - Palo Verde Irrigation
District, Yuma Project, Imperial Irrigation
District, Coachella Valley Irrigation District,
Metropolitan Water District, and the City and
County of San Diego.





Law of the River

The Mexican Water Treaty of 1944

Committed 1.5 maf to Mexico.
(Morelos Dam)

Upper Colorado River Basin Compact of 1948

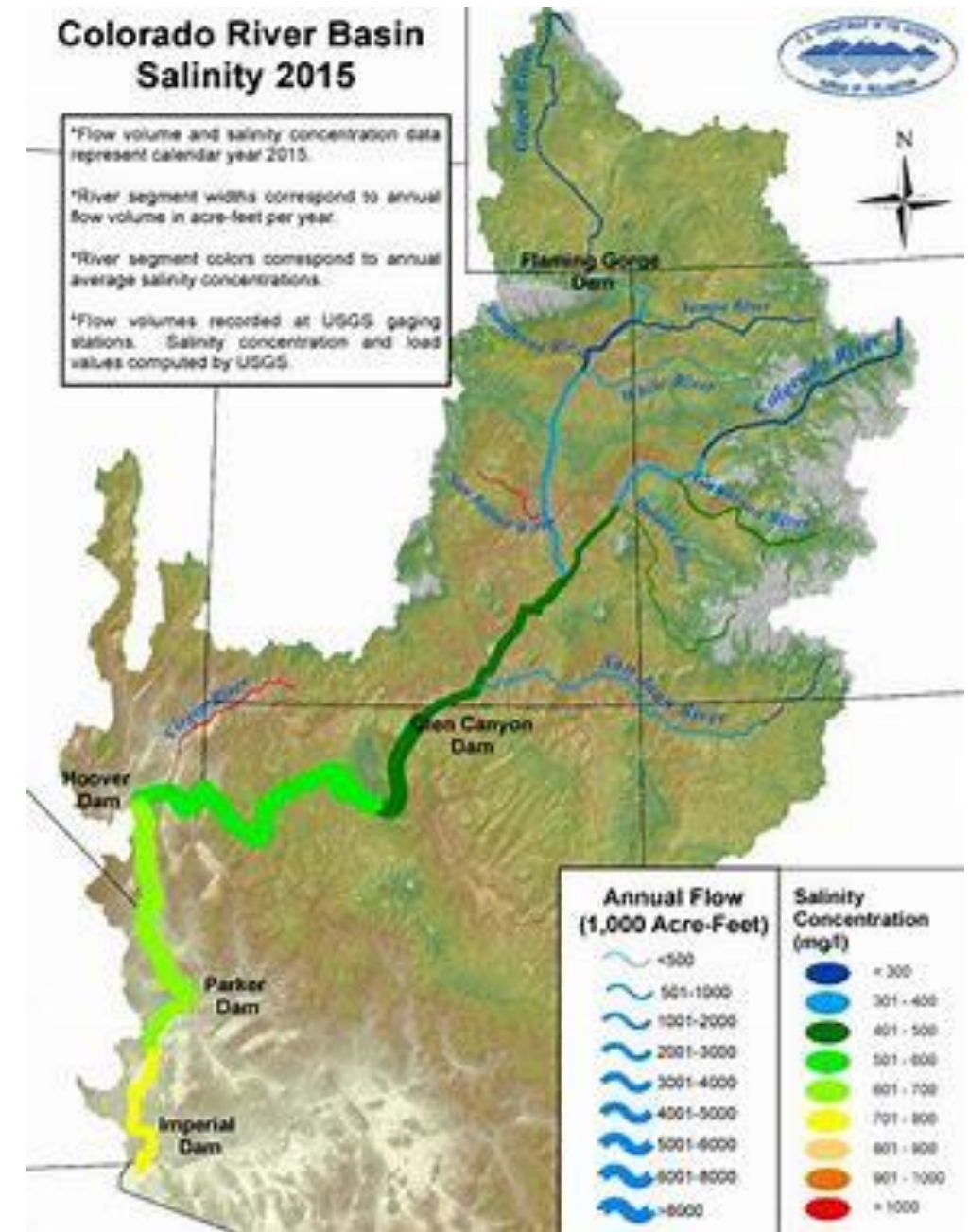
Apportioned the Upper Basin's 7.5 maf among

CO (51.75 percent -3.9 maf),
NM (11.25 percent - 0.85 maf),
UT (23 percent – 1.7 maf),
WY (14 percent – 1.0 maf).

Colorado River Basin Salinity Control Program

CRBSCP

- High salinity levels in the Colorado River
- Negative impacts
- CRBSCP created in 1974
- Purpose: Reduce salinity levels



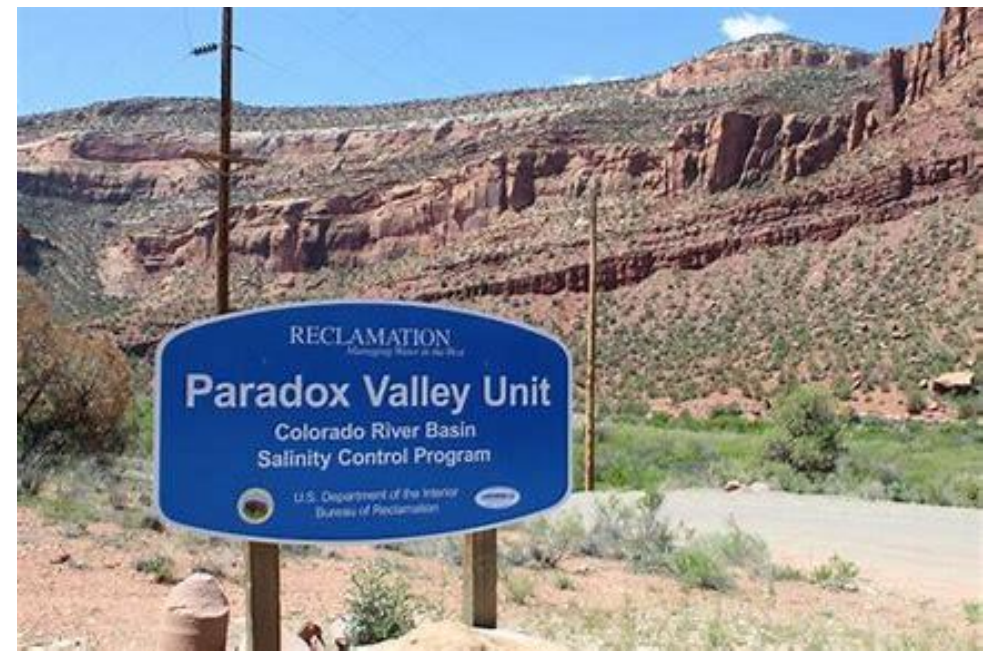
CRBSCP

- Irrigation Runoff
- Salt Disposal and Removal
- Collaborative Efforts with Mexico
- Monitoring and Research



CRBSCP – Paradox Valley

- Located along the Dolores River 50 miles southwest of Grand Junction, CO
- Purpose: Extract naturally occurring brine groundwater in the Paradox Valley, thereby preventing it from entering the Dolores River, a major tributary of the Colorado River.



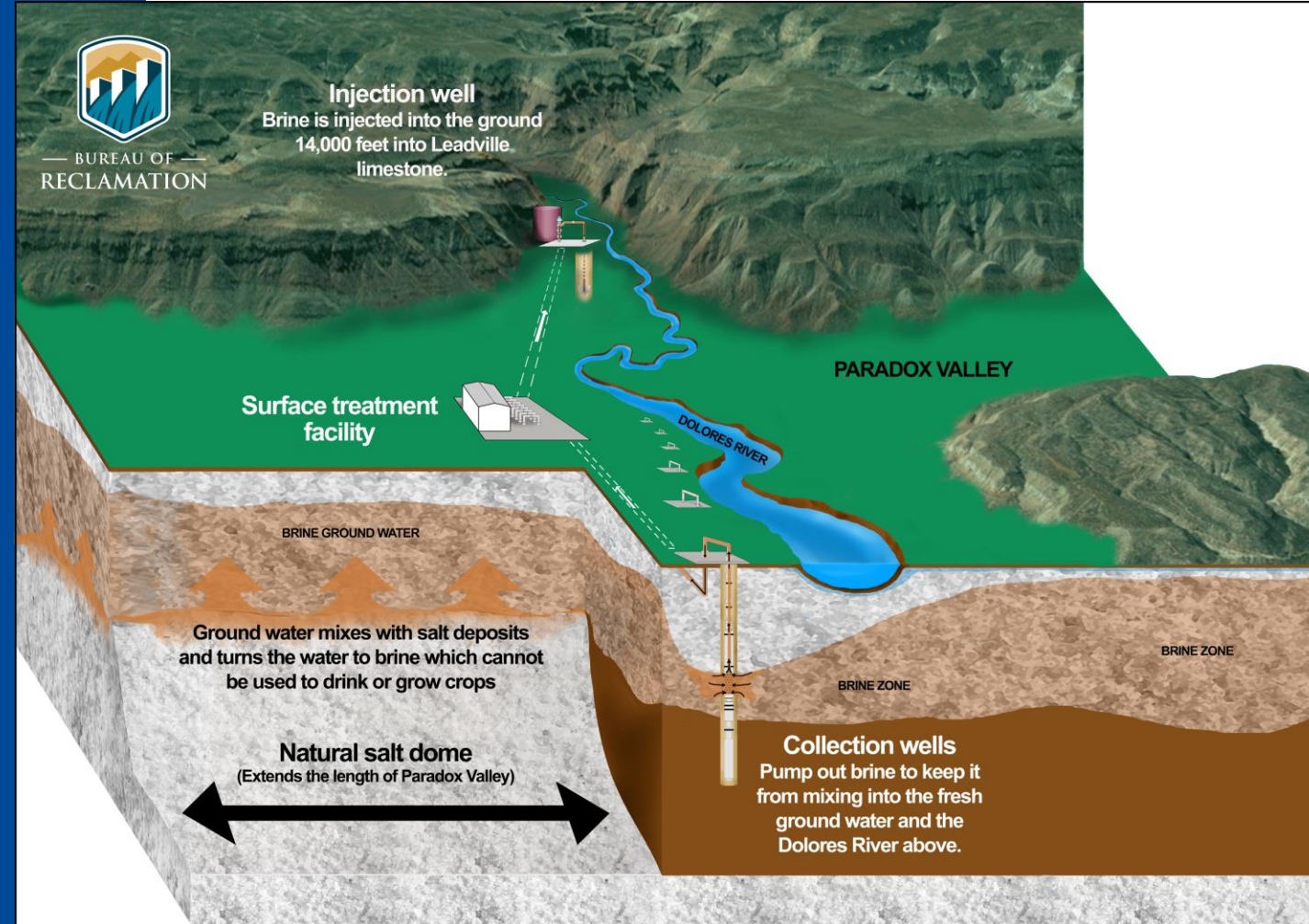
CRBSCP – Paradox Valley

- Saline concentrations have been measured in excess of 250,000 milligrams per liter—about eight times saltier than seawater
- Has contributed up to 200,000 tons of salt per year to the Colorado River system
- The PVU removed 63,000 tons of salt in 2024, which is up from 53,000 tons of salt from 2023.



CRBSCP

- Collection Wells
- Surface Treatment Facility
- Injection Well
- 14,000 Feet into Leadville Limestone Formation



CRBSCP

- Bedrock Store



New Mexico Acequias



NM Acequias

Moorish Influence

Spanish Settlers – 16th Century

Rio Grande Villages

Pueblos

Community



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Questions

