Interim Water & Natural Resources Committee Farmington, New Mexico August 8, 2023

Estevan Lopez, P.E. New Mexico UCRC Commissioner & Governor's Representative for New Mexico on Colorado River Matters



Colorado River Compact 1922

Bishops Lodge – Santa Fe, New Mexico



Colorado River Basin

- 1922 Compact 7 basin states share
 Colorado River
 Water
 - Upper Basin -7.5 MAF/Y
 - Lower Basin –
 7.5 MAF/Y +
 1.0MAF/Y
- 1944 Treaty -Mexico gets 1.5 MAF/Y under the

1948 Upper Colorado River Compact

- Creates ability for Upper Basin to implement 1922 Compact
- Establishes apportionments based on depletions from available supply:
 - 51.75% Colorado
 - 23% Utah
 - 14 % Wyoming
 - 11.25% New Mexico
 - + 50kaf to Arizona
- Establishes the Upper Colorado River Commission with representatives from Colorado, New Mexico, Utah, Wyoming and U.S.
- Collaboration among the Upper Division States to address shared risks, obligations and opportunities
- Resolved uncertainty among Upper Division States PRIOR to additional development



The Upper Basin



The Problem: Depleting our Savings Account



Combined End-of-Year Storage in Lake Powell and Lake Mead since 2000



Lake Mead – 2015



Cross Section of Glen Canyon Dam

The Reprieve



Courtesy of USBOR

Upper Basin Snowfall in the winter of 22-23 alleviated the immediate crisis.

Upper Basin - Lower Basin Key Differences

- Supply Dominated vs Entitlement/Storage Dominated
 - Upper Basin relies on annual runoff
 - Lower Basin relies on storage uses downstream of Lake Mead
- Complicated and distributed vs Simple and concentrated
 - Upper Basin = 10,000 + turnouts in 4 states
 - Lower Basin ~30 turnouts (mainstem) in 3 states + Mexico
- Depletion accounting vs CU accounting
 - Upper Basin accounts for depletions, CU and Losses
 - Evaporation + Losses + CU = Depletions
 - Lower Basin accounts ONLY for CU
 - Diversions return flows = CU
 - Evaporation and losses occur in the Lower Basin
 - Lower Basin Mainstem + Mexico depletions (CU + Evap/Losses) routinely 2x Upper Basin
 - Lower Basin + Mexico depletions > 9.0 MAF/yr
 - Upper Basin < 4.5 MAF/yr





Colorado River Basin Water Use in New Mexico

- Upper Colorado Basin in NM
- Upper Colorado Basin
 - NM apportionment is 838,125 af/yr pursuant to the two compacts
 - Use often limited by water supply
 - Current average around 410,000 af/yr
 - Potential up to 642,000 af/yr by 2070
 - Most of the increase will come from tribal water development
- Lower Colorado Basin
 - Includes the Gila/San Francisco and Little Colorado subbasins
 - Gila water use is limited by two decrees
 - Little Colorado water use is limited by water supply
 - In total, average use less than 40,000 af/yr.

San Juan Basinshowing Navajo Reservoir, NIIP, San Juan Chama Project,of NMAnimas La Plata Project, and NGWSP Pipelines



Estimated Consumptive Use of Upper Basin Water in New Mexico

Averages (acre-feet per year) 2011-2017		
1. NIIP	182,000	
2. San Juan-Chama	85,500	
3. Non-NIIP Agriculture	57,700	
4. Power	39,700	
5. Evaporation	26,700	
6. Municipal	10,500	
Total average currently used	410,300	

Shortages on the San Juan Chama Project (2012-2021)

Year	Allocation(AF)	% Allocation
2012	96,200	100.0%
2013	96,067	99.9%
2014	85,496	88.9%
2015	89,300	92.8%
2016	92,500	96.2%
2017	96,200	100.0%
2018	86,000	89.4%
2019	96,200	100.0%
2020	78,000	81.1%
2021	63,000	65.5%

Navajo Reservoir to Lake Powell



Federally Recognized Colorado River Tribes



