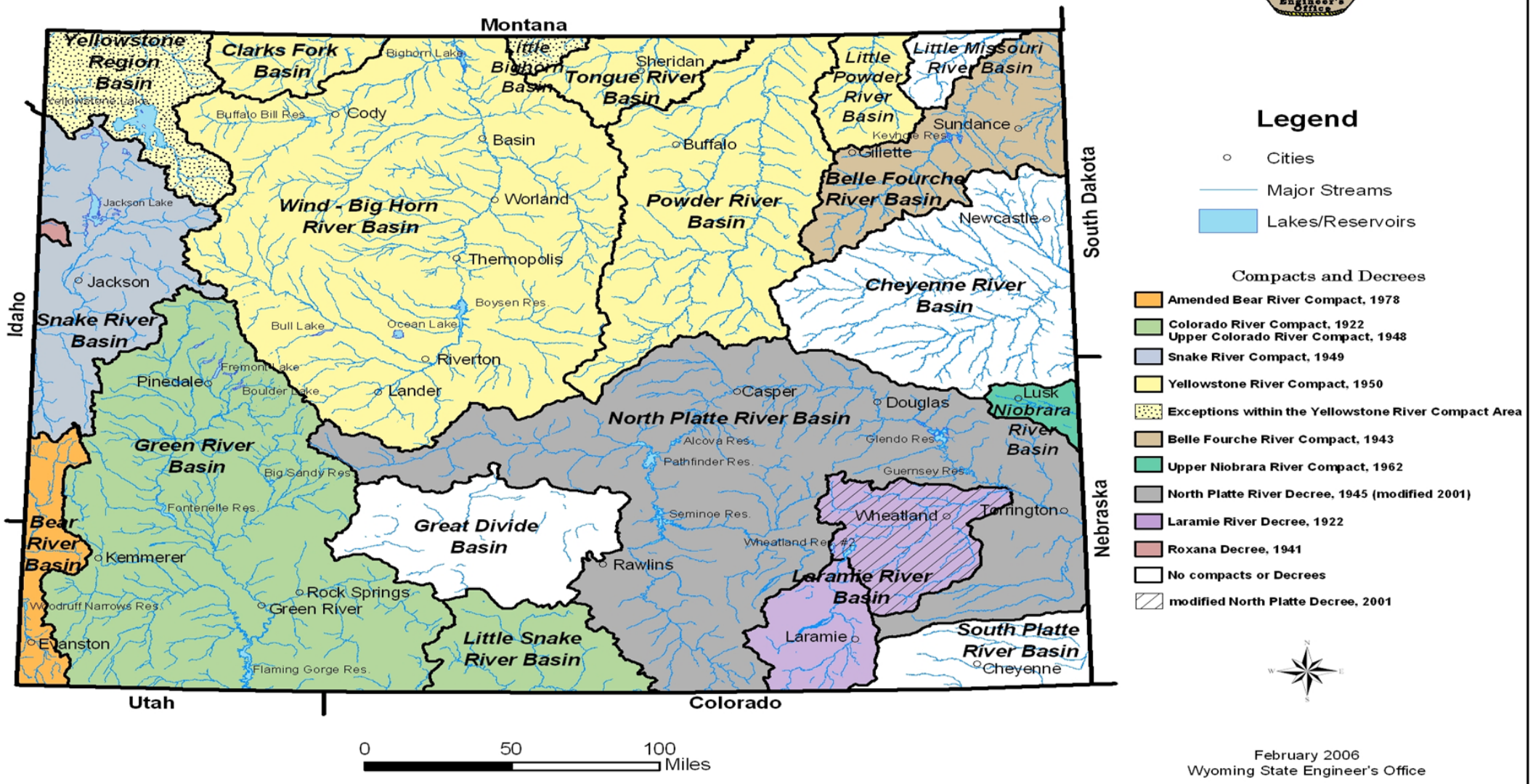
Select Water Committee
May 8, 2025
Interstate Agreements in the Colorado River Basin

Review and Update

Interstate Water Allocation

- Three mechanisms are available for allocating interstate streams between states:
  - **U.S. Supreme Court Decisions** – A court decree allocating water between states based upon equitable considerations—equitable apportionment. (U.S. Const. Art. III, § 2, cl. 1)
  - **Interstate Compacts** – An agreement between two or more states allocating use of water from interstate streams with the consent and approval of Congress. (U.S. Const. Art. I, § 10, ¶ 3)
    - Compacts are agreements between states (contracts), state statutes, and federal statutes.
  - **Congressional Action** – Congressional apportionment of water between states (Boulder Canyon Project Act of 1928).

Wyoming River Basin Compacts and Decrees



Legend

- Cities
- Major Streams
- Lakes/Reservoirs

Compacts and Decrees

- Amended Bear River Compact, 1978
- Colorado River Compact, 1922
  Upper Colorado River Compact, 1948
- Snake River Compact, 1949
- Yellowstone River Compact, 1950
- Exceptions within the Yellowstone River Compact Area
- Belle Fourche River Compact, 1943
- Upper Niobrara River Compact, 1962
- North Platte River Decree, 1945 (modified 2001)
- Laramie River Decree, 1922
- Roxana Decree, 1941
- No compacts or Decrees
- modified North Platte Decree, 2001

February 2006
Wyoming State Engineer's Office

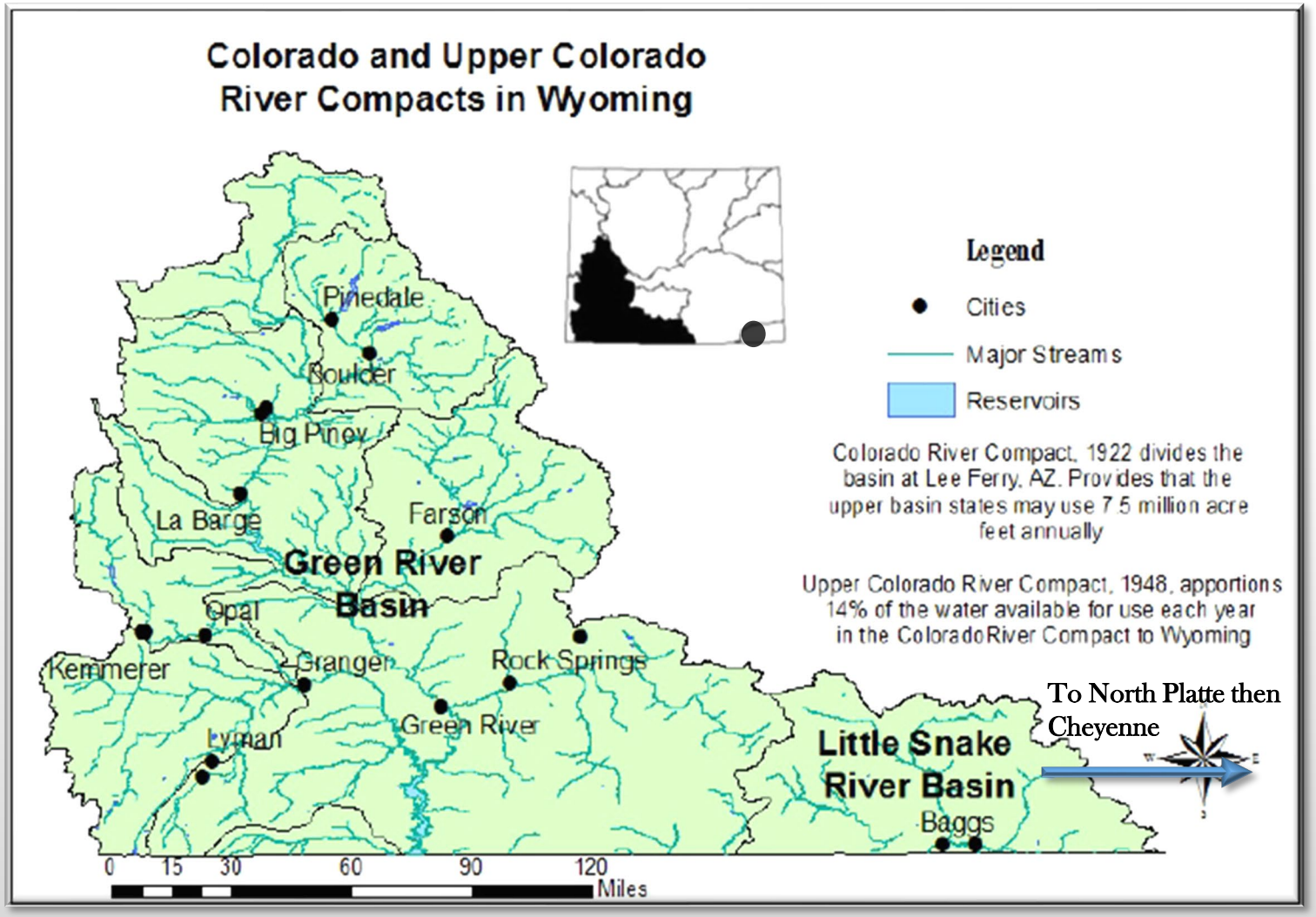
Colorado River System:

- Entire CO River Basin covers nearly 250,000 Square Miles.
- Provides water to seven U.S. States and two Mexican States.
- Supplies water to 40 million people and 5.5 million acres of irrigated lands.
- Served area has economic value of approx. $1.4 trillion annually.
- Capacity to store four years of average annual flow.

The Colorado River Basin includes areas outside of the Basin beneficially served by System water: Cheyenne, Salt Lake City, Denver & Colorado Springs, Albuquerque and NM Rio Grande valley, Los Angeles & San Diego, Imperial & Coachella Valleys etc.

Colorado River Basin in Wyoming

In Wyoming, the Colorado River Basin covers about 17,000 square miles, including the areas drained by the Little Snake and Green Rivers, and supplies water to the City of Cheyenne by a trans-basin diversion from the Little Snake Basin.



Issues Leading to 1922 Compact Negotiation

Imperial Valley's increasing agricultural demands

Los Angeles was rapidly growing; water demands were increasing

Lower Basin States needed flood control and storage

Upper Basin States needed to secure future supplies

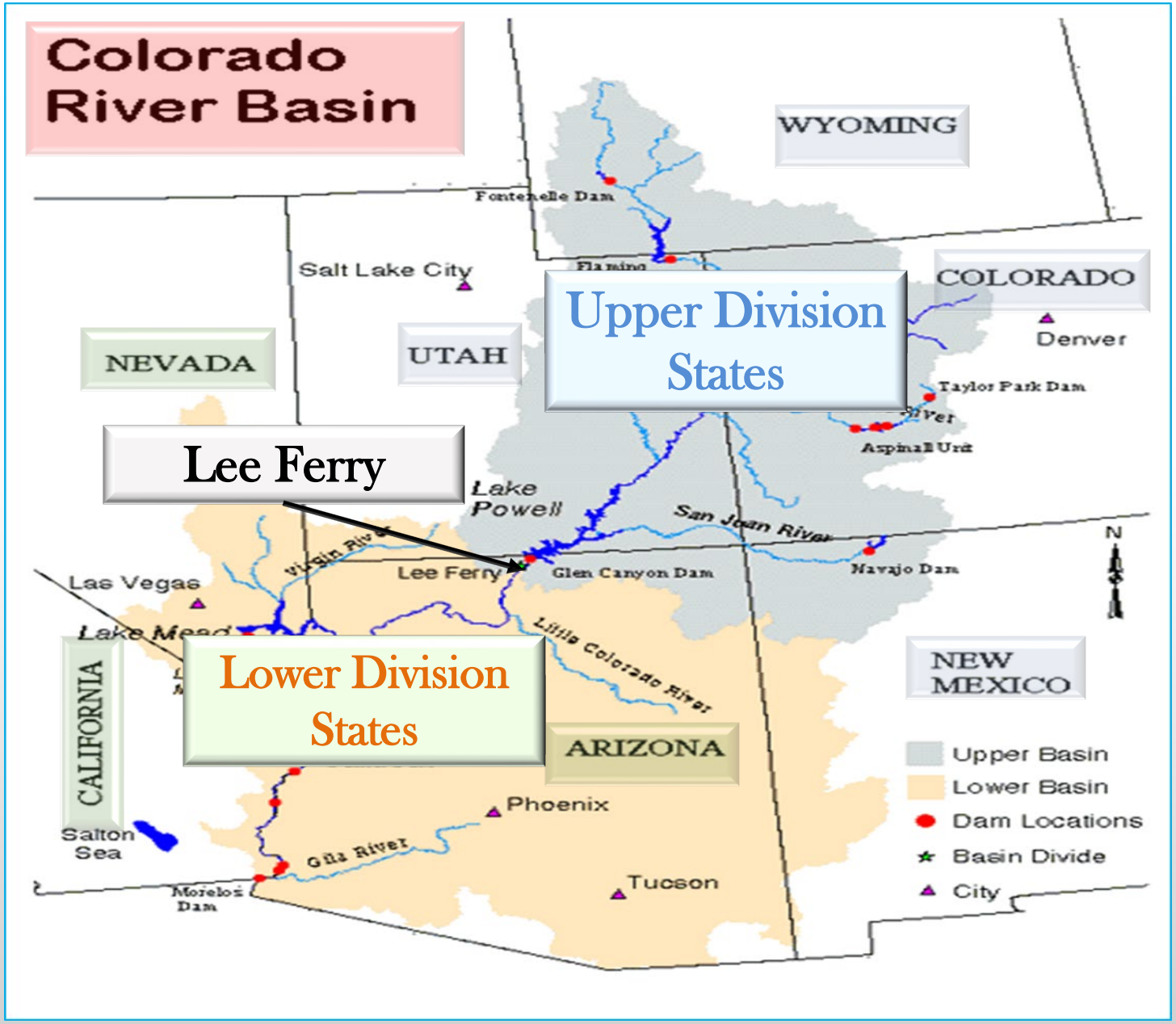
Colorado River Compact (1922)


United States of America

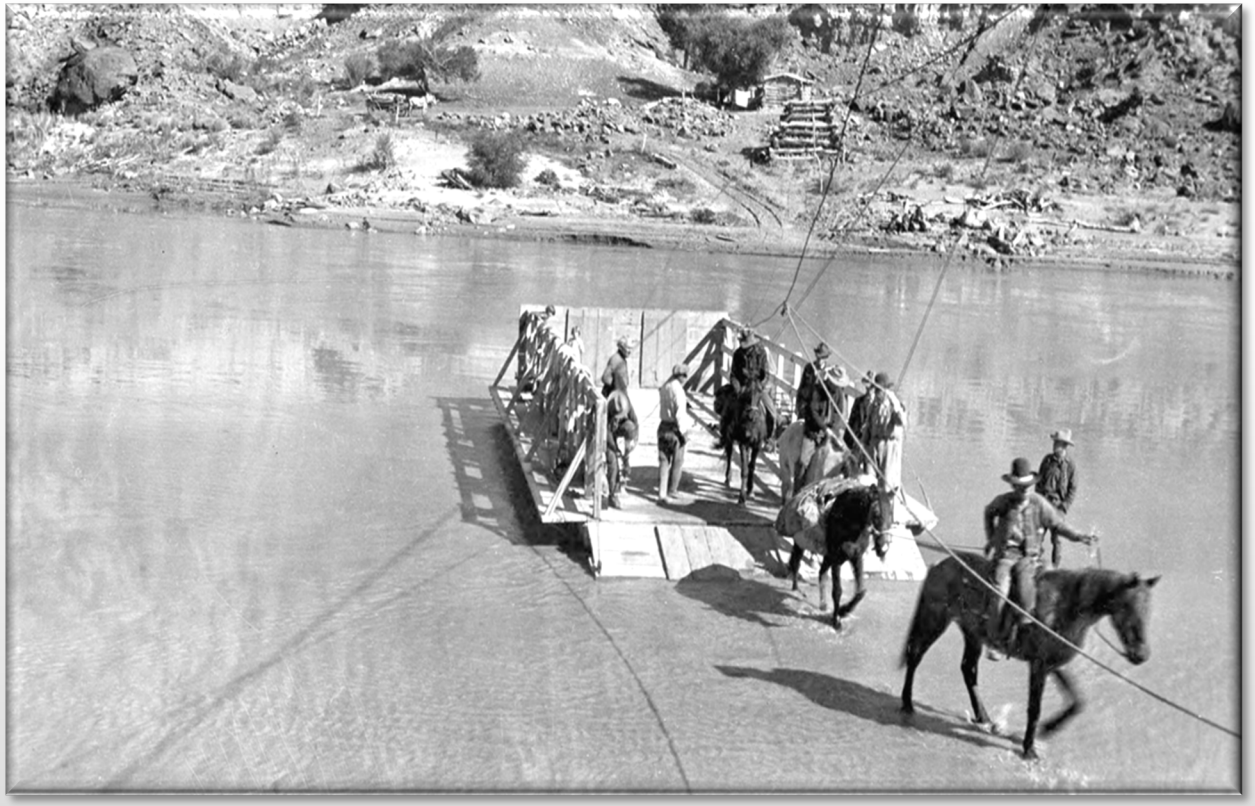
DEPARTMENT OF STATE

- ✓Eliminates prior appropriation considerations between states (WY v. CO: 1921)
  - Allow upstream States to develop supplies at their own pace
- ✓Provides equitable division and apportionment of the use of the system waters
- ✓Maintains state autonomy as opposed to federal control
  - Consensus that states would be in better position if they agree to terms, as opposed to a court or Federal Government dictating.
- ✓Promote interstate comity
- ✓Remove causes of present and future controversies
- ✓Prioritizes domestic, agricultural and power uses over river navigation and agricultural and domestic uses over power uses
- ✓Provisions within the Compact cannot interfere with U.S. obligations to Indian Tribes
- ✓Protects “Present Perfected Rights” (rights existing at the time of the Compact (or later?))

1922 Compact Divides the River

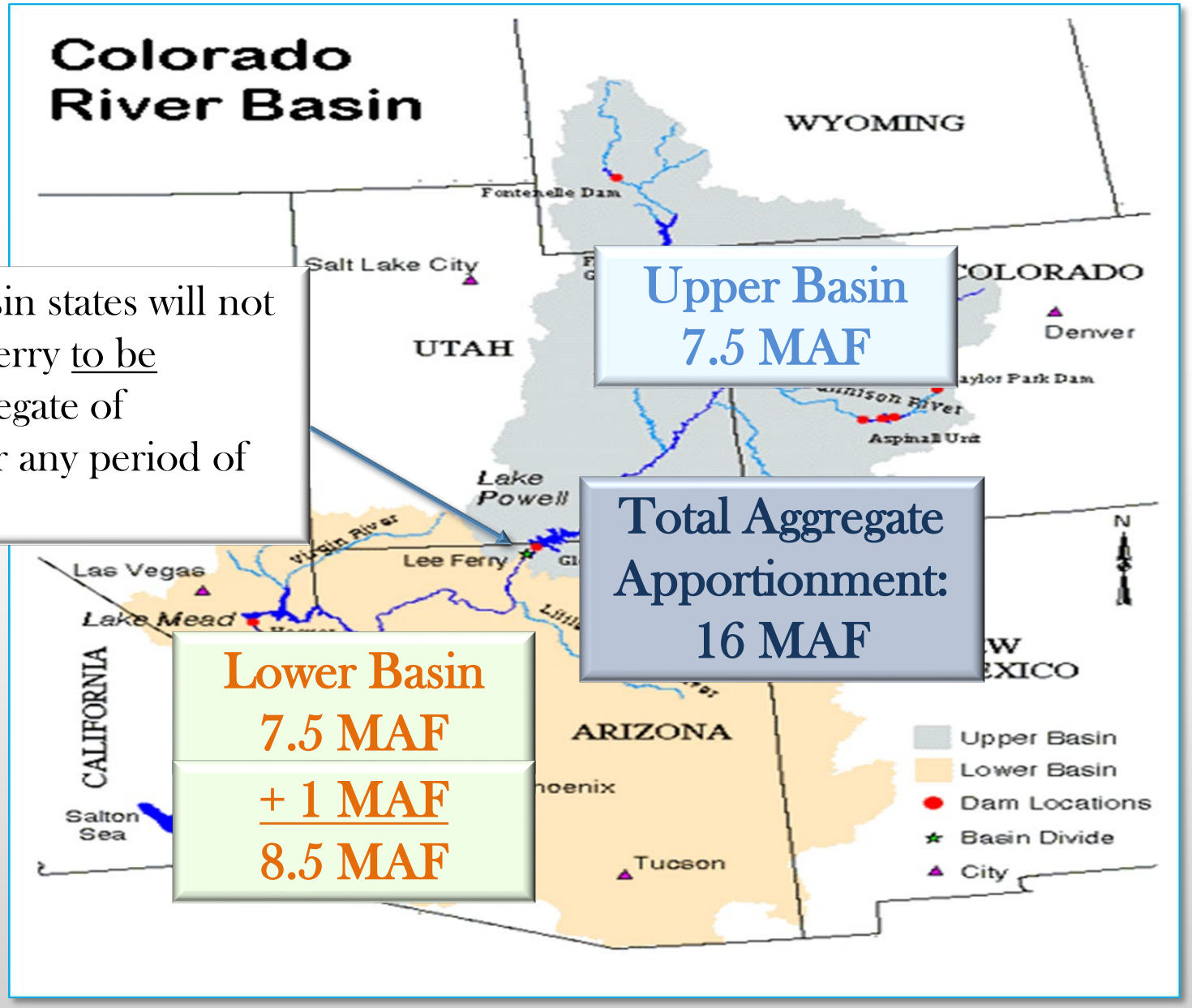


Lee's Ferry, just upstream of Lee Ferry defined as "one mile below the mouth of the Paria River."



The 1922 Compact does not apportion water, it apportions the "exclusive beneficial consumptive use" of water.

Art. III (d) - Upper Basin states will not cause the flow at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years.



Boulder Canyon Project Act (1928)

- After California agreed to limit itself to 4.4 MAF, the Act congressionally approved the 1922 Compact effective upon ratification by California and five other states.

- Authorized Boulder (Hoover) Dam and the All-American Canal.

- *Suggested* division of the Lower Basin's 7.5 MAF:
  - ✓ .3 MAF to Nevada
  - ✓ 2.8 MAF to Arizona
  - ✓ 4.4 MAF to California

  In 1964, the U.S. Supreme Court adjudicated those amounts in Arizona v. California. Lower Basin uses are measured at points of diversion; fails to include evaporation and system losses.

- Established statutory scheme for Secretary of Interior to contract for storage and delivery of water from Hoover Dam, establishing Secretary as *Water Master* in Lower Basin.

Boulder Canyon Project Act (1928)
Hoover Dam

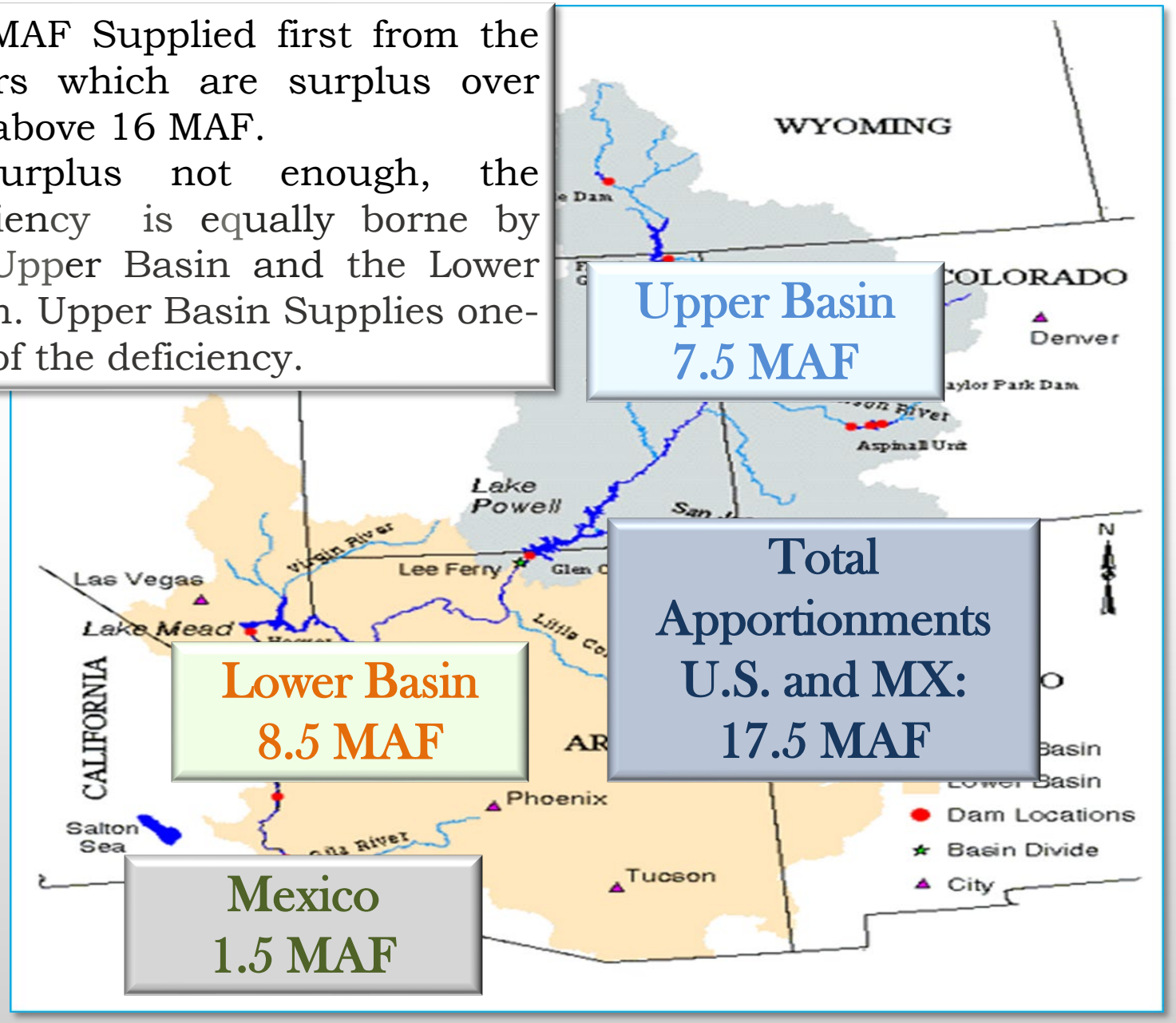
Mainstream users in each Lower Basin State must have a direct contract with Reclamation, or receive water through a water entity which has a direct contract with Reclamation. Lake Mead active capacity: 27 MAF

Boulder Canyon Project Act (1928)
All American Canal

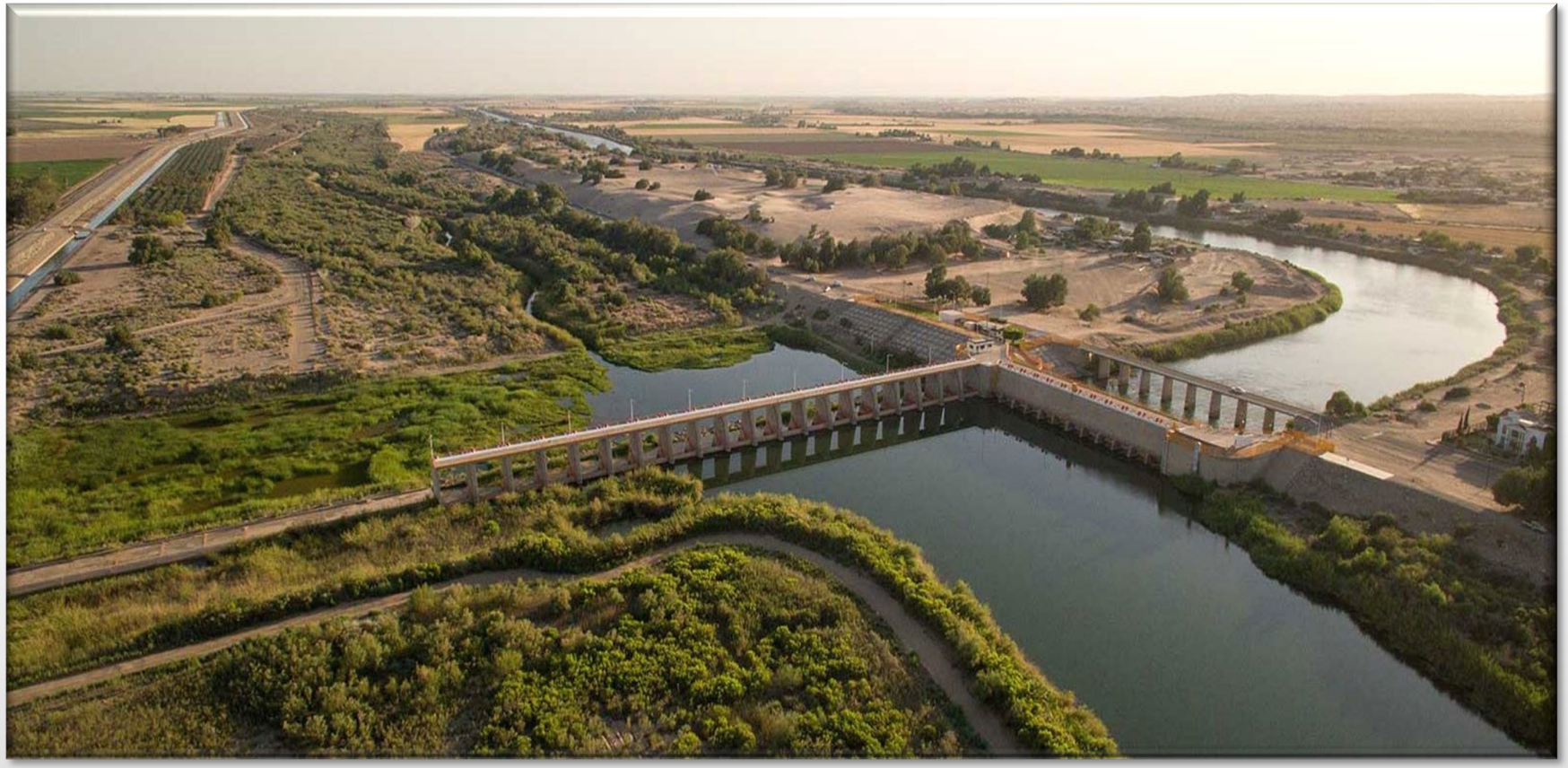
Imperial Dam; The All-American Canal serves the Imperial and Coachella Valleys in southern California and the Yuma Project in California and Arizona. The canal has a design capacity of **15,155 cubic feet per second.**

Treaty with Mexico, 1944

- ✓ 1.5 MAF Supplied first from the waters which are surplus over and above 16 MAF.
- ✓ If surplus not enough, the deficiency is equally borne by the Upper Basin and the Lower Basin. Upper Basin Supplies one-half of the deficiency.



Treaty with Mexico, 1944



Morelos Dam, Northern International Boundary

Upper Colorado River Basin Compact of 1948

- Divides the Upper Basin's allocation between Arizona, Colorado, Utah, New Mexico, and Wyoming.
  - ✓ Apportions beneficial consumptive use of water.

- Establishes the *Upper Colorado River Commission ("UCRC")*. One commissioner from each of the Upper Division States and one commissioner representing the United States. Arizona is not represented.

- Contains provisions for possible curtailment of Colorado River water use.
  - ✓ "The extent of curtailment by each state shall be determined in such amounts and at such times as determined by the UCRC." (1948 Compact, Article IV).
  - ✓ Curtailment shall become necessary in order that the flow at Lee Ferry shall not be depleted below that required by Article III of the Colorado River Compact (75/10 or more or less? Mexico Deficiency?)
  - ✓ Rights perfected prior to the 1922 Colorado River Compact are excluded.

- UCRC does NOT have authority to determine how curtailment of use will be implemented within an individual state. The State Engineer is responsible for implementing curtailment within Wyoming to maintain compact compliance: <u>Priority regulation</u>.
  - ✓ Without UCRC finding, only voluntary reductions are possible (requiring funding, program, credit, etc.)

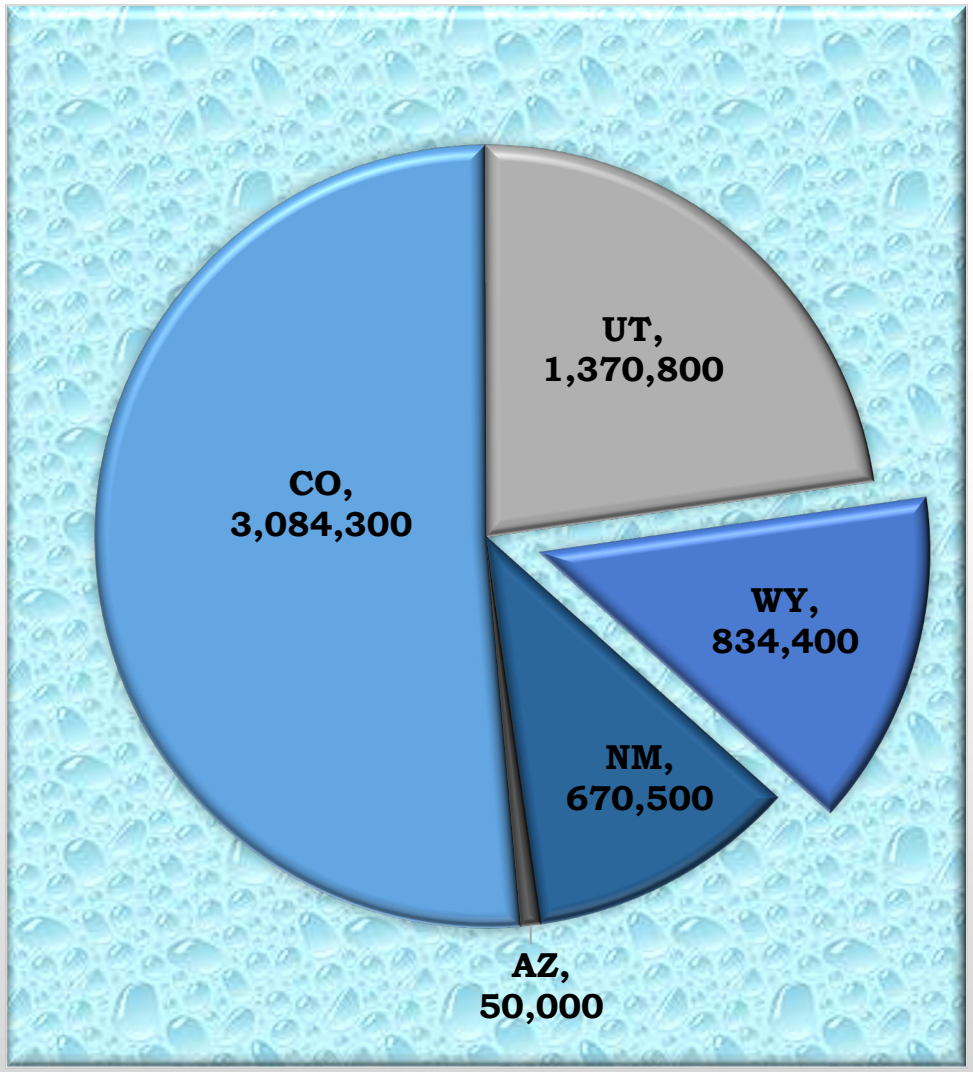
The Upper Colorado River Basin Compact
Apportionments and Demands

Article III(a) of the Upper Colorado River Basin Compact apportions to individual states the Upper Basin's share of the beneficial consumptive use of water apportioned under the Colorado River Compact (7.5 MAF). Arizona gets 50,000 AF annually. The other states may consumptively use a set percentage of the remaining water available for use each year.

Upper Colorado River Basin Compact
Apportionment of Full Supply (7.5 MAF) and of Available Consumptive Use Identified in 2007 Hydrologic Determination (at least 6.01 MAF)

State	Percentage	Share of 7.5 MAF (full supply)	Share of 6.01 MAF (5.96 MAF after AZ)
Colorado	51.75	3,855,375	3,084,300
New Mexico	11.25	838,125	670,500
Utah	23	1,713,500	1,370,800
Wyoming	14	1,043,000	834,400
Total	100	7,450,000	5,960,000

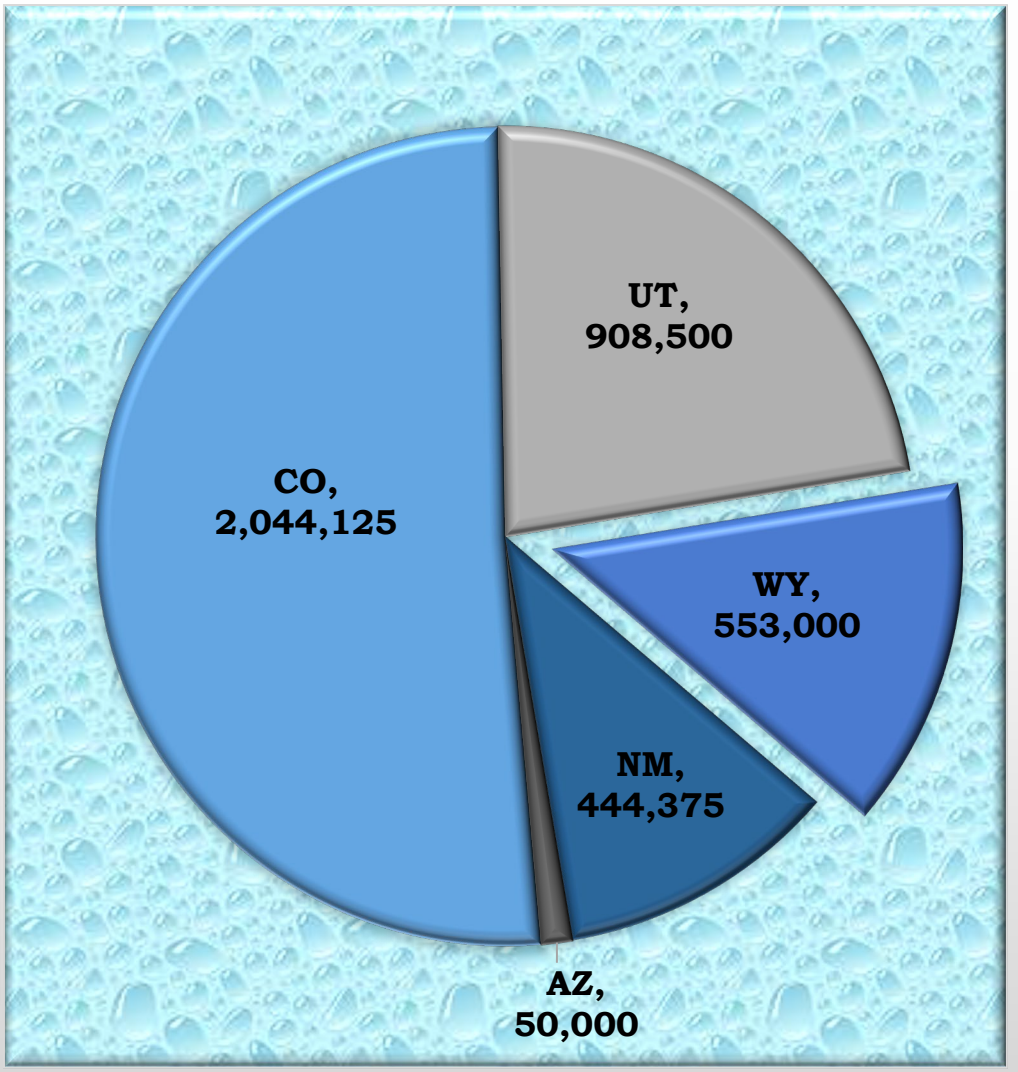
1948 Compact Apportionment of 6.01 Million Acre-feet Available Supply



Use Estimates:

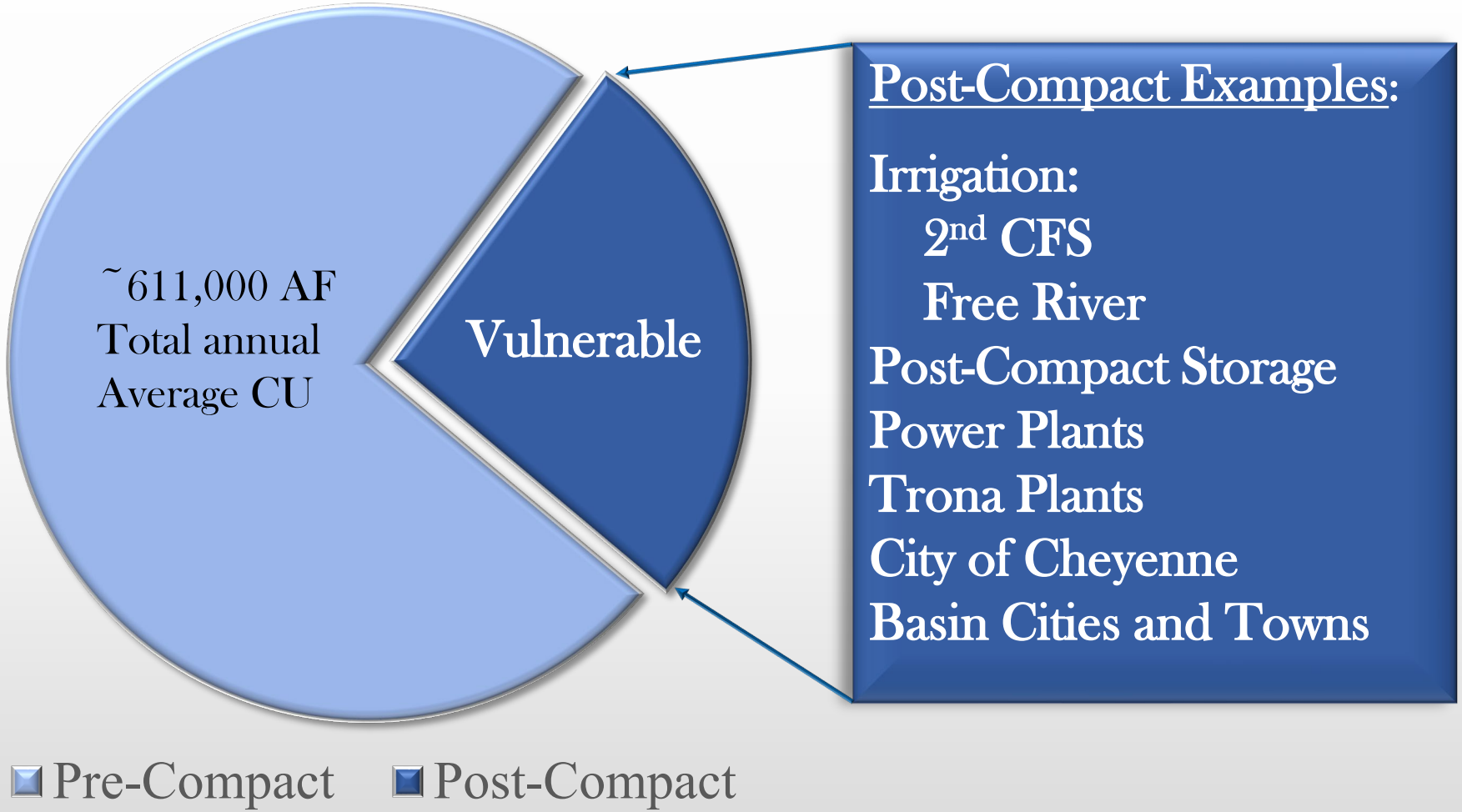
CO: 2,859,000
UT: 1,036,000
WY: 688,000
NM: 600,000

1948 Compact Apportionment of Only 4 Million Acre-feet Available Supply



For consistency, use estimates are based upon the June 14, 2022, Updated 2016 Current and Future Depletion Demand Schedule.

Vulnerability to Drought/Curtailment



Colorado River Storage Project Act of 1956 (CRSP)

- Provides storage to the Upper Basin and promotes Upper Basin development of its Colorado River allocation. Insurance for compact compliance reduces risk of curtailment.

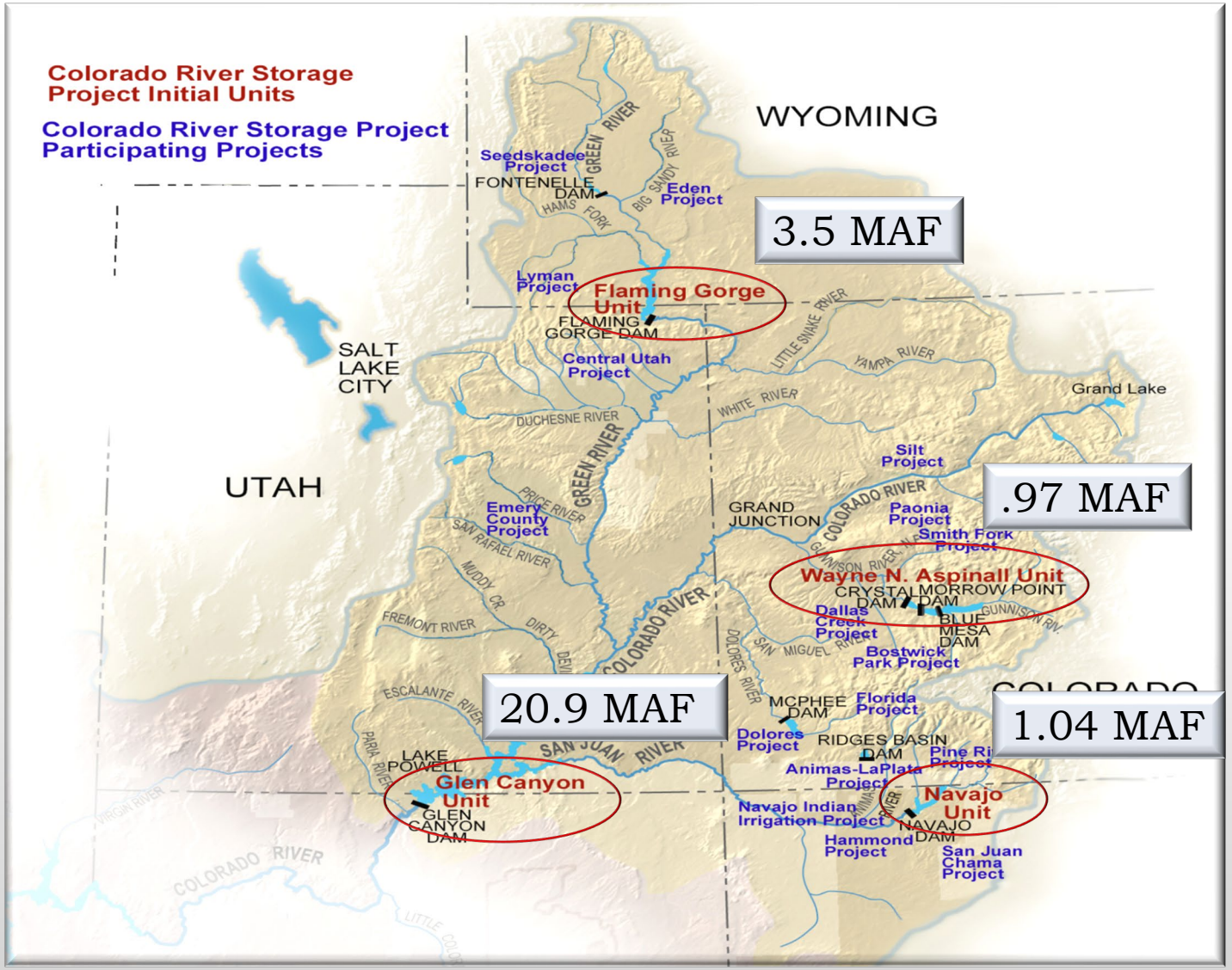
- Authorized construction of the Initial Units: Glen Canyon Dam, which created Lake Powell, and Aspinall, Flaming Gorge, and Navajo.

- Authorized a number of other participating projects but not all were built. In Wyoming, Fontenelle (Seedskadee), Eden and Lyman projects built.

- Unlike being the water master in the Lower Basin, in the Upper Basin Interior is only a facility owner and water right holder.

Photos taken from https://www.usbr.gov.

CRSP Initial Units



Volumes are Active Capacity

Colorado River Basin Project Act (1968)

- Authorized construction of the Central Arizona Project; and made CAP junior to California

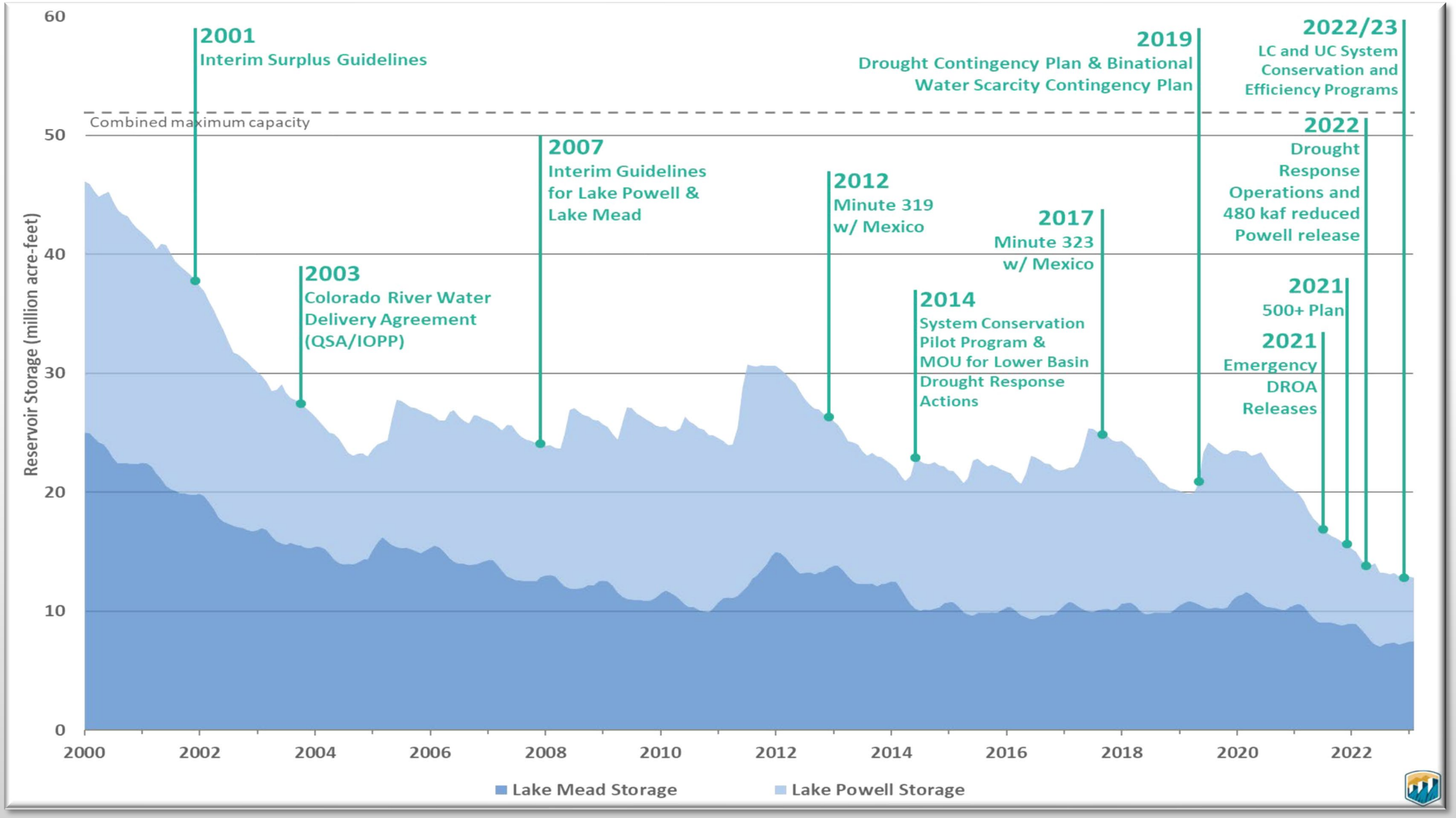
But also,

- Directs the Secretary to authorize storage and releases from Powell, in order of priority:
  1. Releases for half of Article III(c) deficiency to MX if any.
  2. Releases for the non-depletion obligation (75/10).
  3. Releases after storage of water necessary for clauses (1) and (2) above, *without impairment* to Upper Basin uses ("602(a) storage").
- From 1970 until 2007, releases from Lake Powell were governed by the Long Range Operating Criteria (LROC): 8.23 objective release.
- In 2007, the Secretary adopted the 2007 Interim Guidelines, which govern Lake Powell releases and provide for shortages in the Lower Basin under certain conditions.

Expiring Colorado River Operating Agreements

- Multiple agreements related to the operation of Lake Powell and Lake Mead expire at the end of 2026:
  - 2007 Interim Guidelines (adopted in 2007, amended in 2024)
    - Includes multiple agreements between Lower Basin States and water users
    - Includes Intentionally Created Surplus agreements
  - Minute 323 to the 1944 Water Treaty with Mexico (adopted in 2017) and related implementation agreements
  - 2019 Colorado River Basin Drought Contingency Plans (adopted in 2019), including:
    - Drought Response Operations Agreement
    - Demand Management Storage Agreement
- Agreements were adopted in sequence in response to changing hydrologic conditions
- The "Post-2026" process is intended to develop successor domestic agreements prior to preparation of the 2027 Annual Operating Plan (anticipated mid-2026).

Recent Colorado River Actions



Development of New Guidelines

- The new guidelines will likely include the following elements:
  - **Lower Basin Shortage (and Surplus) Guidelines**: Identify circumstances under which the Secretary would allocate, reduce, or increase the annual amount of water available for consumptive use from Lake Mead to the Lower Division states.
  - **Coordinated Operations of Lake Powell and Lake Mead**, particularly under low reservoir conditions.
  - **Storage and Delivery of Conserved water in Lake Mead and/or Lake Powell** to increase the flexibility to meet water use needs from both reservoirs.

- The proposed federal action does not preclude upstream or downstream actions needed to protect critical reservoir elevations at Lake Powell and Lake Mead such as-
  - Approaches that include opportunities for conservation or other water management strategies.
    - Both the Upper Basin and Lower Basin proposals included voluntary conservation elements. These elements will require separate agreements between States and/or water users.
  - Temporary emergency response operations at upstream Colorado River reservoirs to protect critical infrastructure at Glen Canyon Dam, so long as those operations are within the respective RODs
    - The UDS intend to enter a new agreement regarding the operation of CRSP Upstream Initial Units to help maintain Lake Powell releases.

Post-2026 Process Update

- March 2024 – The Upper Division States (UDS) and the Lower Division States (LDS) submitted separate alternatives.
  - All seven Basin States have continued working together, trying to achieve consensus.
  - The UDS have proposed to engage in voluntary conservation and potential releases of water from CRSP Upstream Initial Units (Flaming Gorge, Aspinall, Navajo) as a parallel activities.

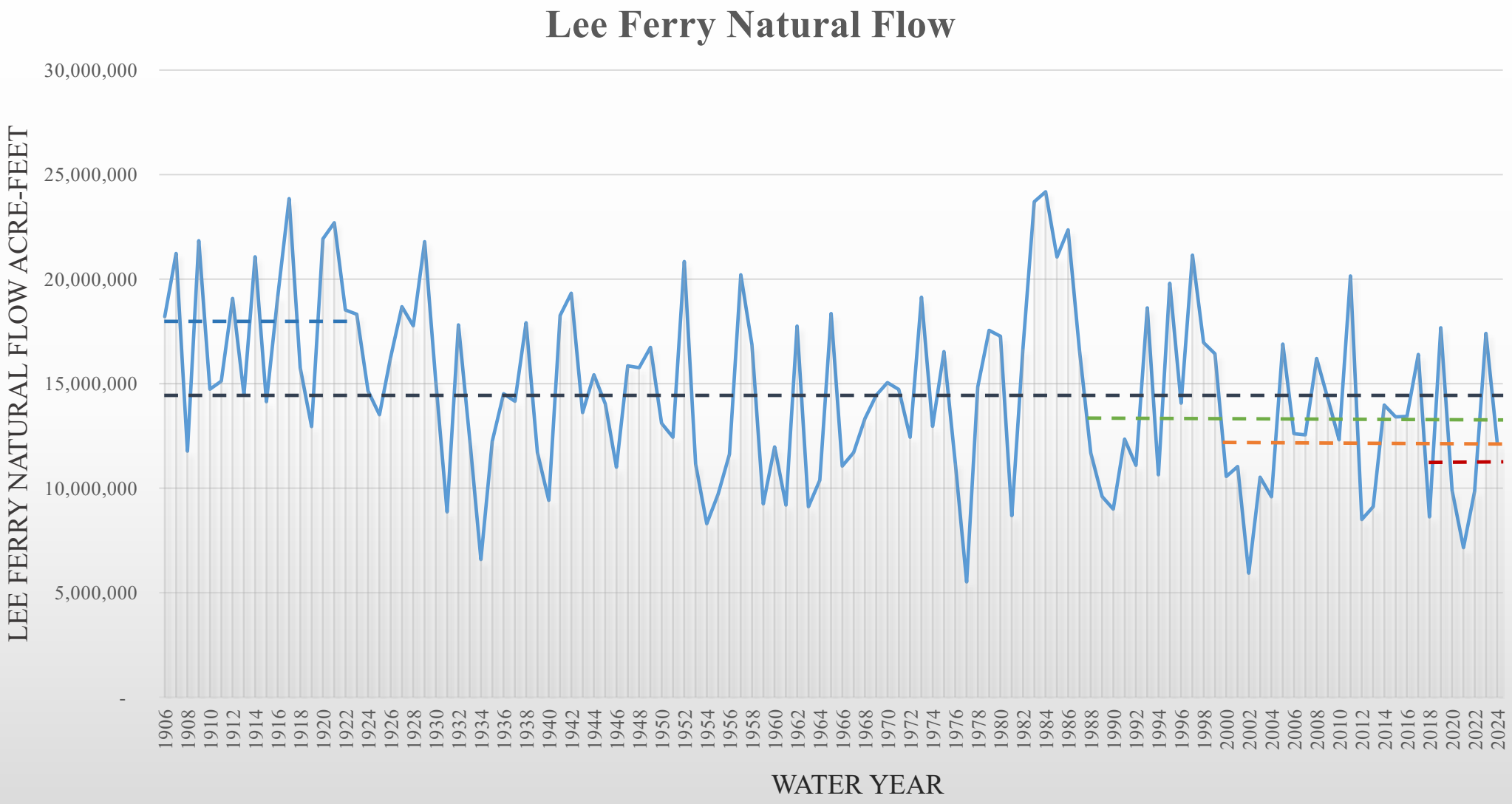
- December 2024 – UDS and LDS provided refinements to their alternatives
- January 2025 - Reclamation issued its Post-2026 Alternatives Report

- General timeline for post-2026 process and consensus framework efforts
  - Consensus seven-state framework end of May 2025
  - Draft EIS process through late fall 2025
  - Draft any necessary implementation agreements (Fall 2025)
  - Prepare any necessary implementing legislation (Jan 2026)
  - Final EIS - Spring 2026
  - Record of Decision prior to August 2026
  - Implementation Beginning Water Year 2027 (Oct 1, 2026)

Reclamation Alternatives Report

- The Bureau of Reclamation issued its Alternatives Report in January of 2025 identifying the alternatives it intends to analyze:
  - **No Action**: required by NEPA, signifies a return to annual decision-making absent objective criteria, a mode of operation Reclamation and the Basin States have purposefully avoided since the late 1990s
  - **Federal Authorities**: designed to represent operations that the Department and Reclamation can implement within current statutory authorities absent new stakeholder agreements
  - **Federal Authorities Hybrid**: designed to achieve protection of critical infrastructure and benefit key resources. Developed in close coordination with the National Park Service, the Fish & Wildlife Service, reflects concepts developed with Basin Tribes and principles put forth by hydropower interests (WAPA and CREDA)
  - **Cooperative Conservation**: informed by a proposal submitted by a consortium of conservation organizations, includes operational concepts that promote maximum flexibility in water use
  - **Basin Hybrid**: designed to provide a basis to facilitate greater agreement across the Basin. Reflects components of proposals from the Upper Basin States, Lower Basin States, and Basin Tribes.

- Reclamation is currently revising alternatives as appropriate to reflect input.



1906-1922
18.0 MAF

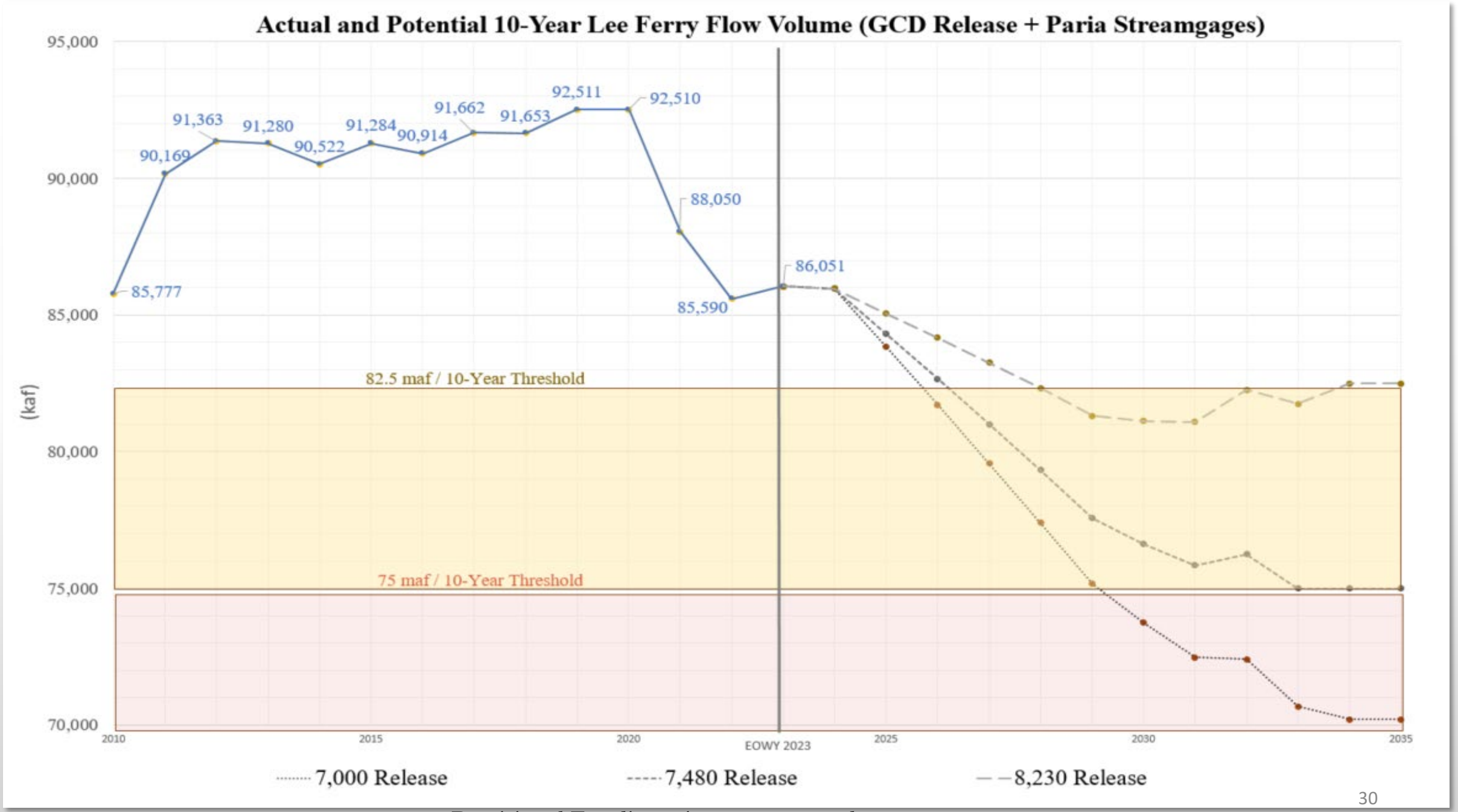
1906-2024
14.7 MAF

1988-2024
13.0 MAF

2000-20224
12.4 MAF

2018-2024
11.8 MAF

2025 will be less than 11.8

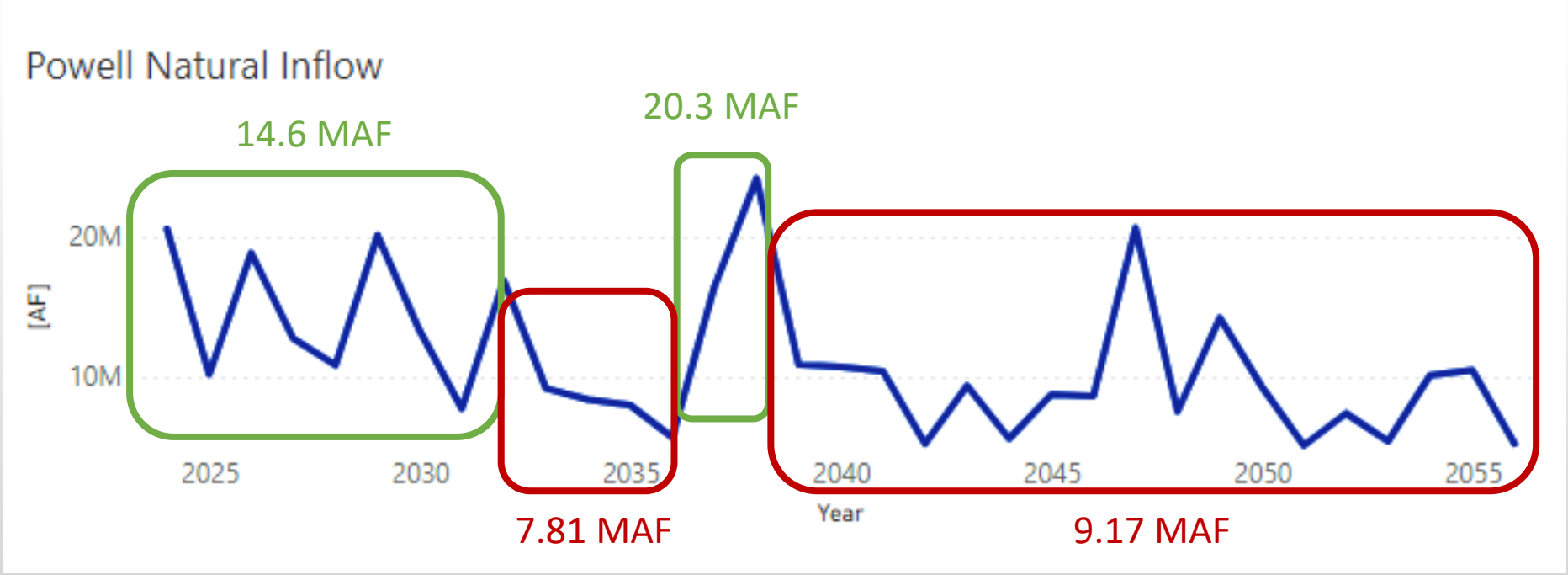

Actual and Potential 10-Year Lee Ferry Flow Volume (GCD Release + Paria Streamgages)
95,000
90,000
85,000
80,000
75,000
70,000
(kaf)
85,777
90,169
91,363
91,280
90,522
91,284
90,914
91,662
91,653
92,511
92,510
88,050
85,590
86,051
82.5 maf / 10-Year Threshold
75 maf / 10-Year Threshold
2010
2015
2020
EOWY 2023
2025
2030
2035
7,000 Release
7,480 Release
8,230 Release

Evaluating UB Risk–Single Trace Analysis

Trace 66 – Post-Pluvial NPC Temp-Adjusted

Annual Average – 11.15 MAF

Characteristics: Initial pluvial period (9y), short drought (4y), short pluvial period (2y), mostly dry (18y)

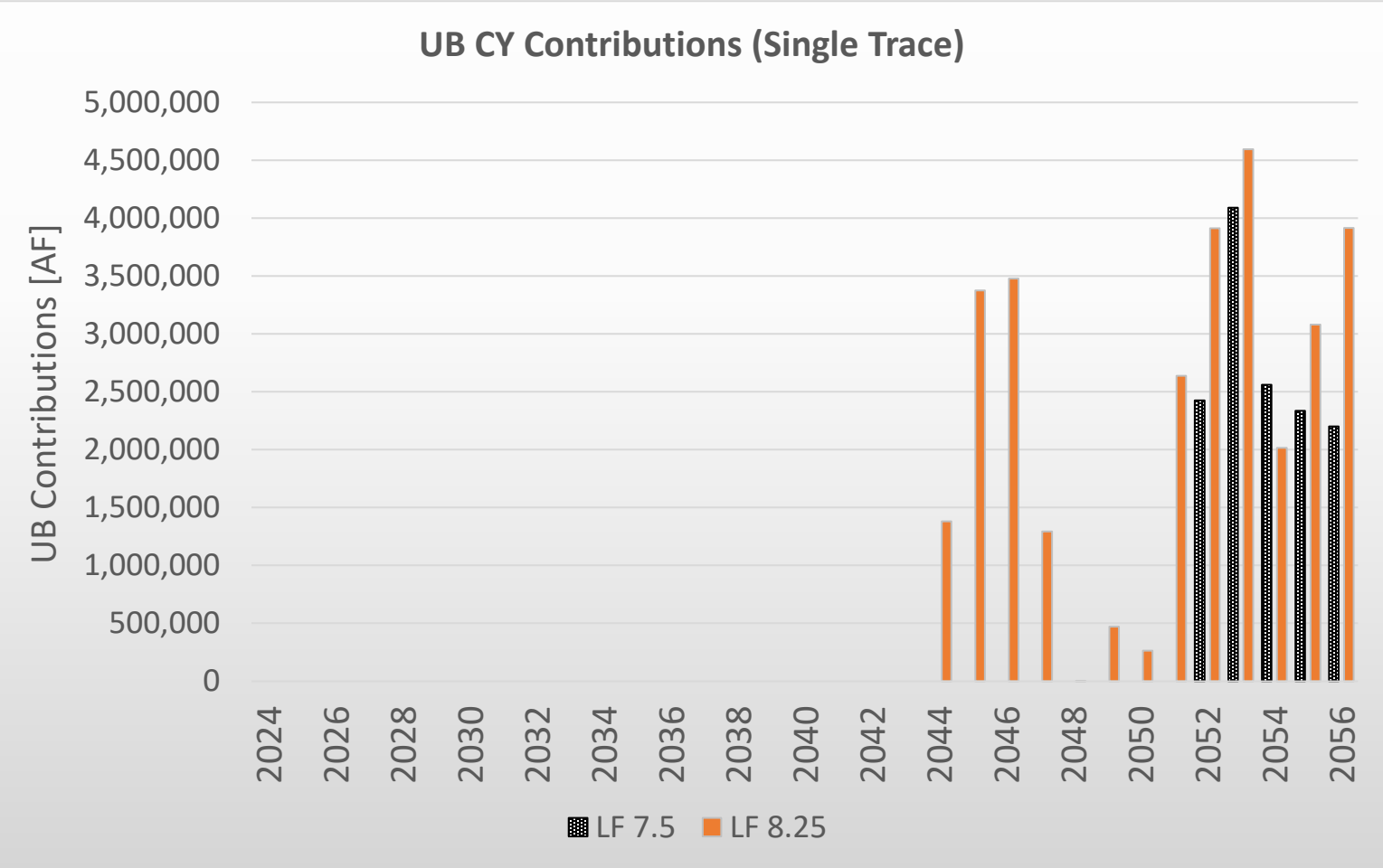


Evaluating UB Risk—Single Trace Analysis

Trace 66 – Post-Pluvial NPC Temp-Adjusted

Annual Average – 11.15 MAF

	UB Contributions [AF]		
Scenarios	Average	Maximum	Cumulative
LF 8.25	922,055	4,594,731	30,427,819
LF 7.5	412,663	4,090,986	13,617,891



- LF 8.25 and 7.5 scenarios have greater contributions than the cumulative and average volumes of the proposed UDS and LDS alternatives.
- LF 8.25 and 7.5 scenarios have years in excess of existing consumptive use.

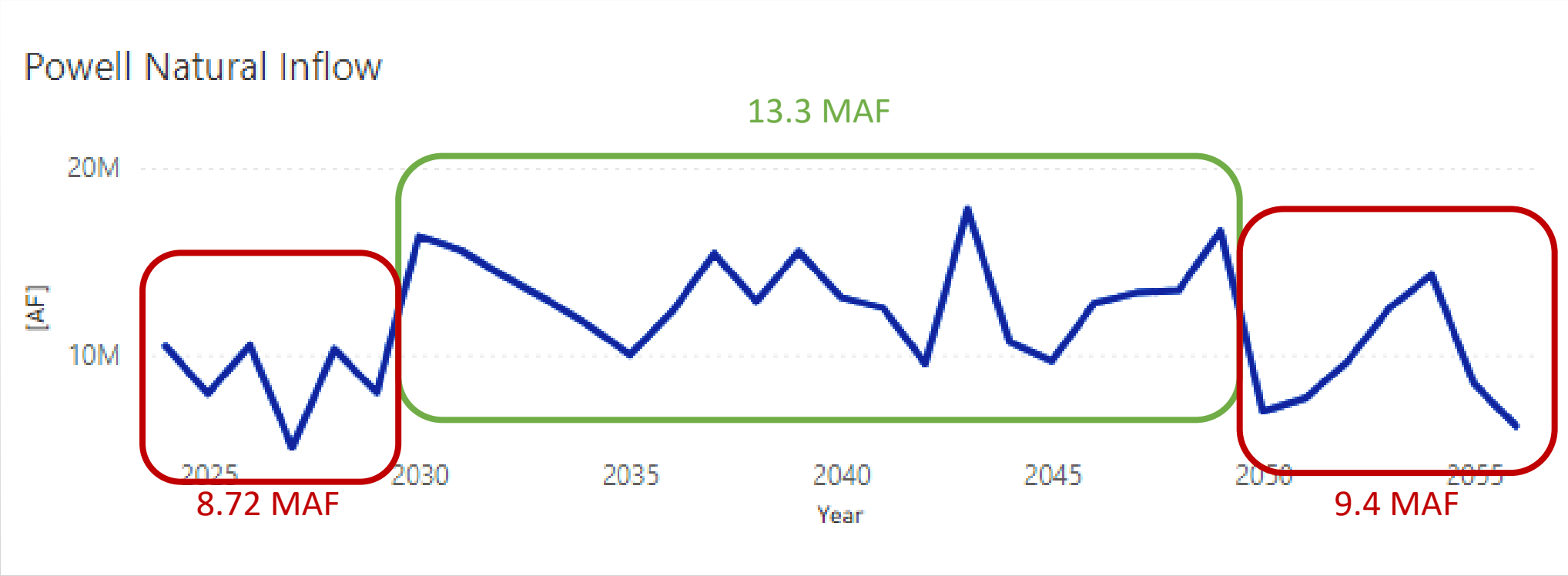
Provisional-For discussion purposes only

Evaluating UB Risk–Single Trace Analysis

Trace 57 – Post-Pluvial NPC Temp-Adjusted

Annual Average – 11.66 MAF

Characteristics: Initial drought (6y), mostly above average period (20y), mostly dry (7y)

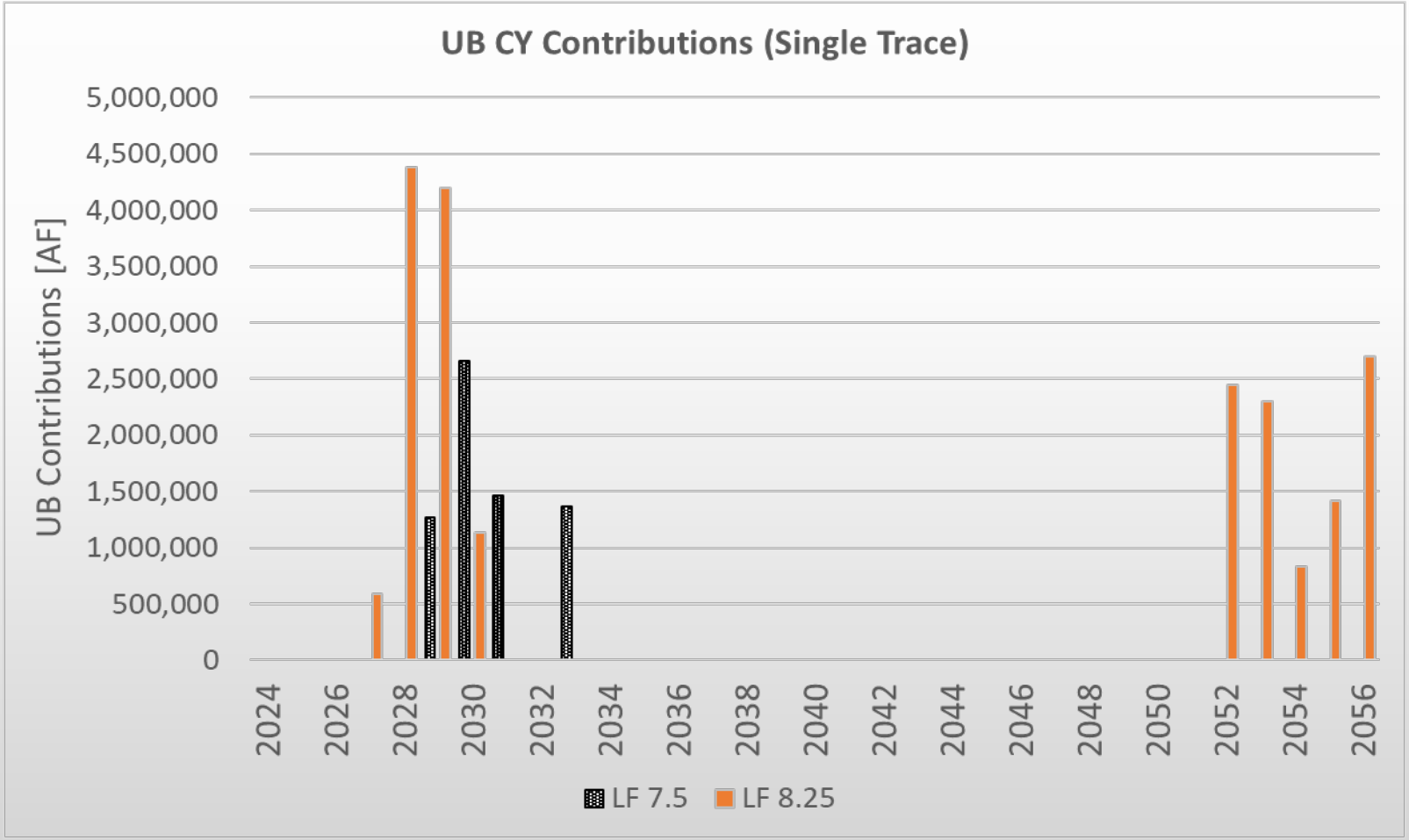


Evaluating UB Risk—Single Trace Analysis

	UB Contributions [AF]		
Scenarios	Average	Maximum	Cumulative
LF 8.25	605,855	4,385,484	19,993,224
LF 7.5	204,720	2,663,199	6,755,751

Trace 57 – Post-Pluvial NPC Temp-Adjusted

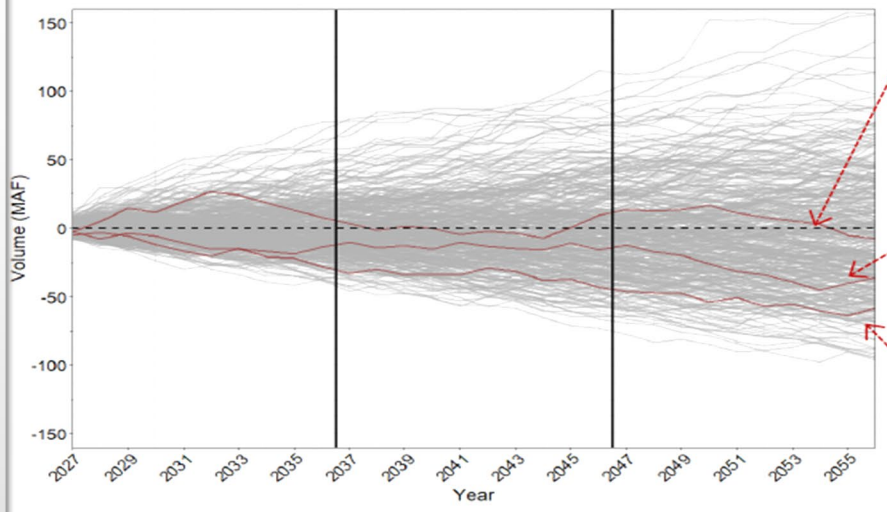
Annual Average – 11.66 MAF



- Coupled with diminished storage, consecutive dry years significantly increase risks to UB uses.

Arizona Single Trace Analysis

Lower Basin Alternative vs. Compact*

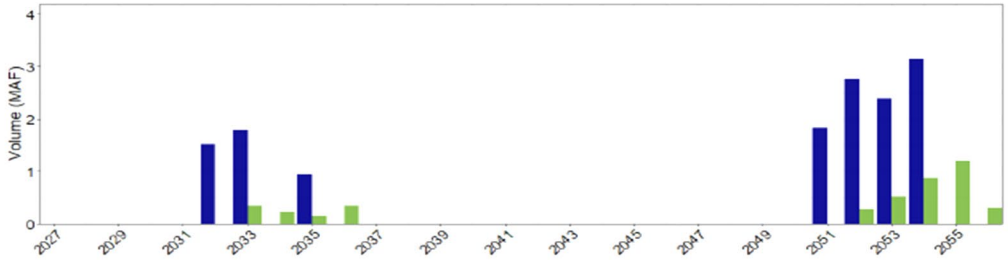


50th

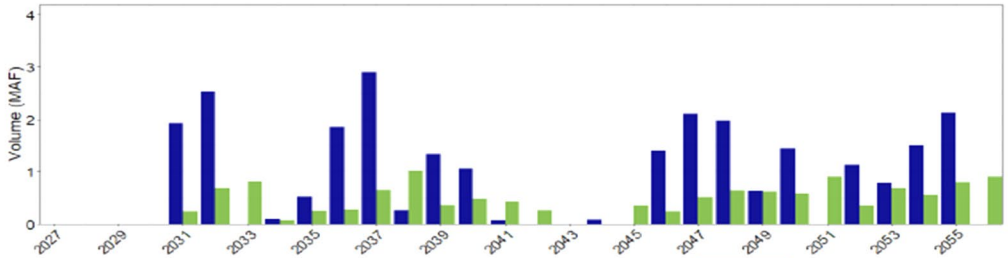
25th

10th

0 MAF
4 MAF



4 MAF
14 MAF



13 MAF
26 MAF

*8.23 MAF annual Powell target release

ARIZONA RECONSULTATION COMMITTEE

Pilot Voluntary Conservation Program Interim Topic

- Why Consider Voluntary Conservation?
  - Any potential seven-state consensus will likely include voluntary conservation in the Upper Basin.
    - Dry hydrology continues, and many projections predict hydrology will worsen.
    - Intended to help maintain releases from Lake Powell, and help satisfy agreed-upon compact compliance, instead of mandatory curtailment of Upper Basin uses or litigation.
    - Consensus is preferable to litigation or legislation: Consensus provides certainty as opposed to significant uncertainty and helps maintain the ability to control our own destiny.
  - Will help Wyoming effectively participate in Upper Basin conservation while protecting both participating and non-participating water rights.
    - Helps demonstrate our willingness to consider and implement conservation to satisfy interstate obligations.
  - Limited time: Any seven-state consensus or guidelines will take effect by October 2026.

Pilot Voluntary Conservation Program Interim Topic

- Next Steps
  - Work with the Select Water Committee through the interim to identify and address any legislative needs
  - Work with the Colorado River Advisory Committee
  - Engage in Stakeholder/Public outreach

- Potential Subject Areas
  - Findings
  - Process: Application, review, and approval
  - Preventing injury to other water rights
  - Consumptive use considerations
  - Abandonment protection
  - Shepherding limitation
  - Export statute exception
  - Role of the State's interest in Fontenelle Reservoir
  - Rulemaking
  - Time limit and reporting

Questions?