



The Colorado River: Past, Present and Future

Uintah Basin Water Summit
January 11, 2024

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1922 Colorado River Compact

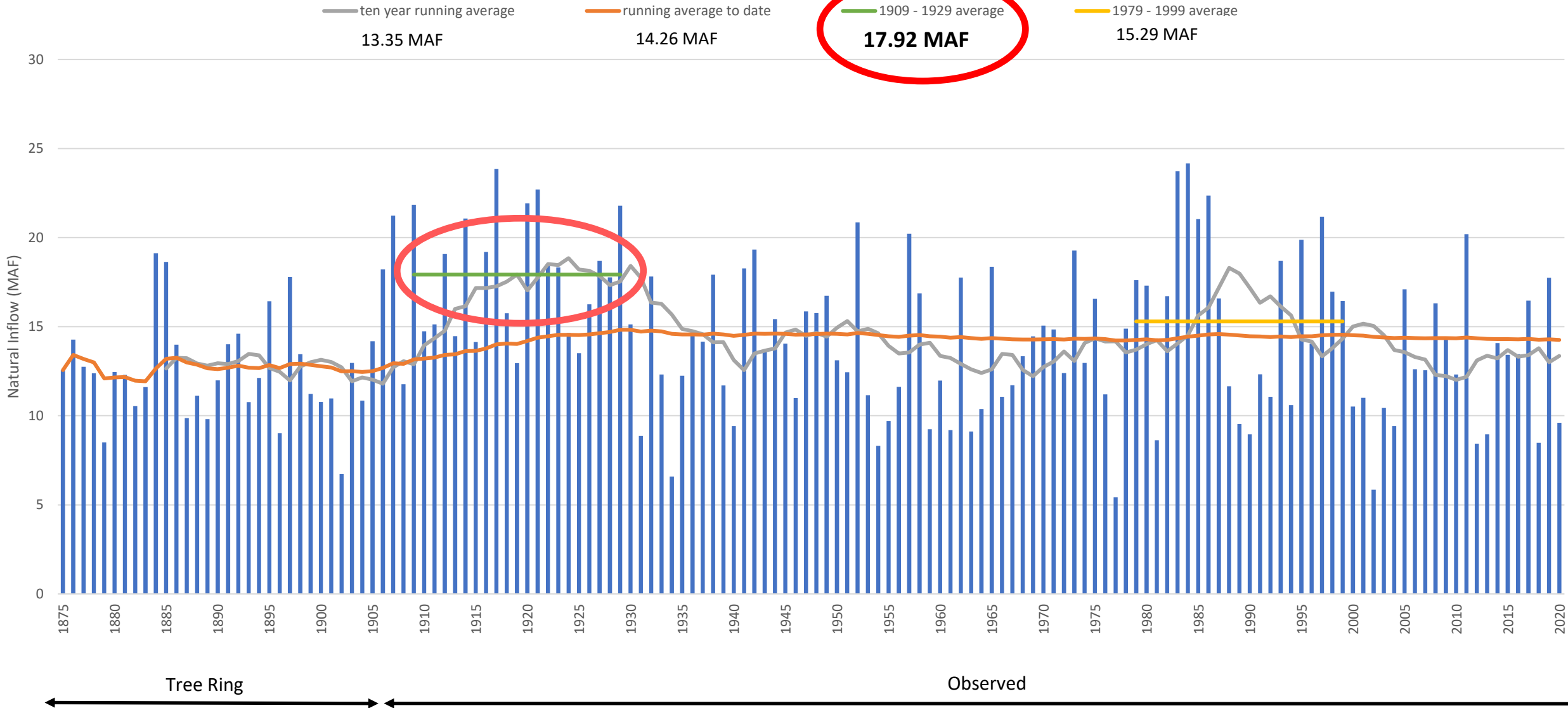


THE COLORADO RIVER AUTHORITY OF UTAH





Colorado River Natural Flows at Lee Ferry Historic Wet Periods





1948 Upper Colorado River Basin Compact



THE COLORADO RIVER AUTHORITY OF UTAH



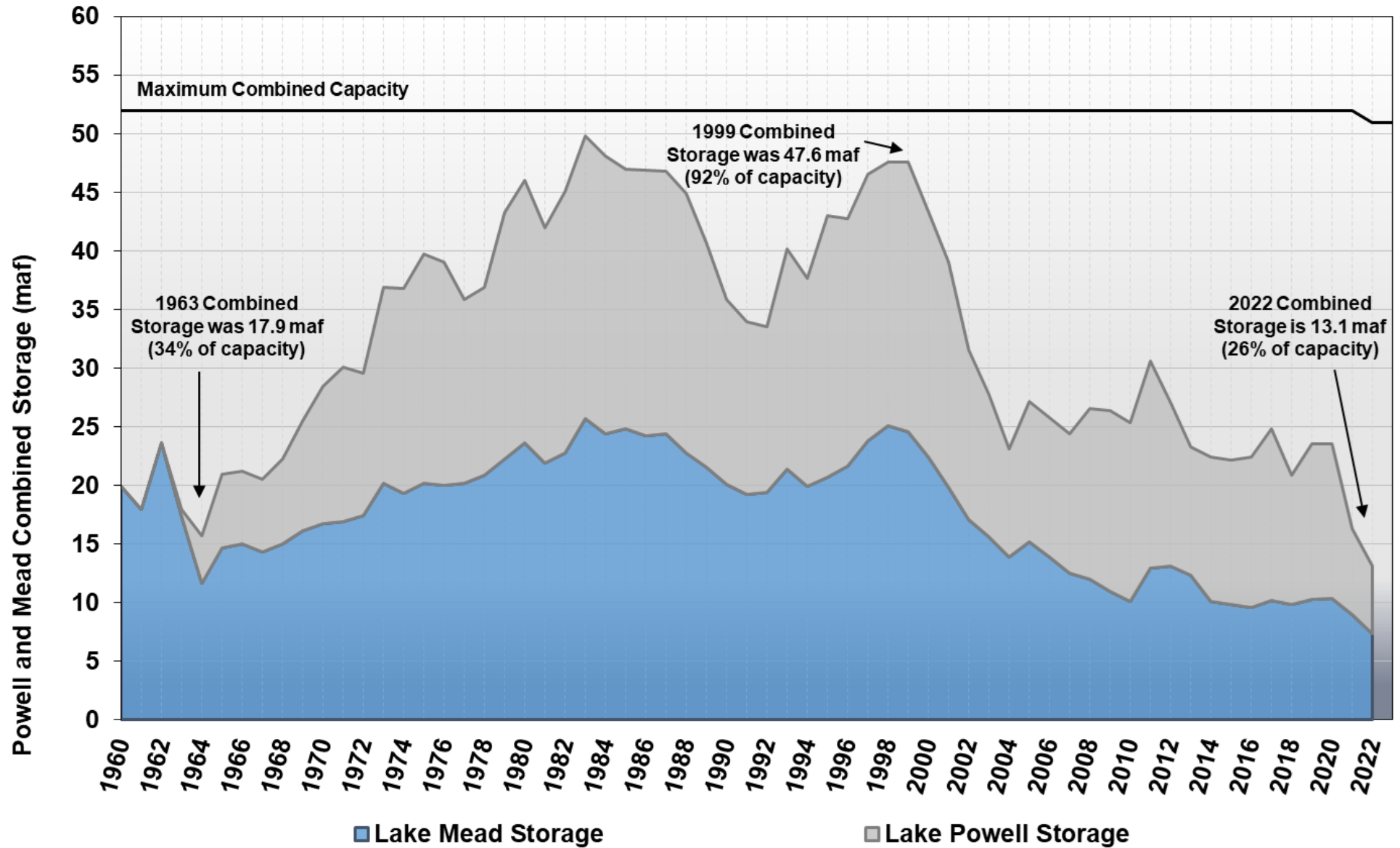
+Arizona – 50,000 AFY





Lake Powell and Lake Mead End of Water Year Storage

Water Years 1960 through 2022



[slide courtesy of the Bureau of Reclamation]

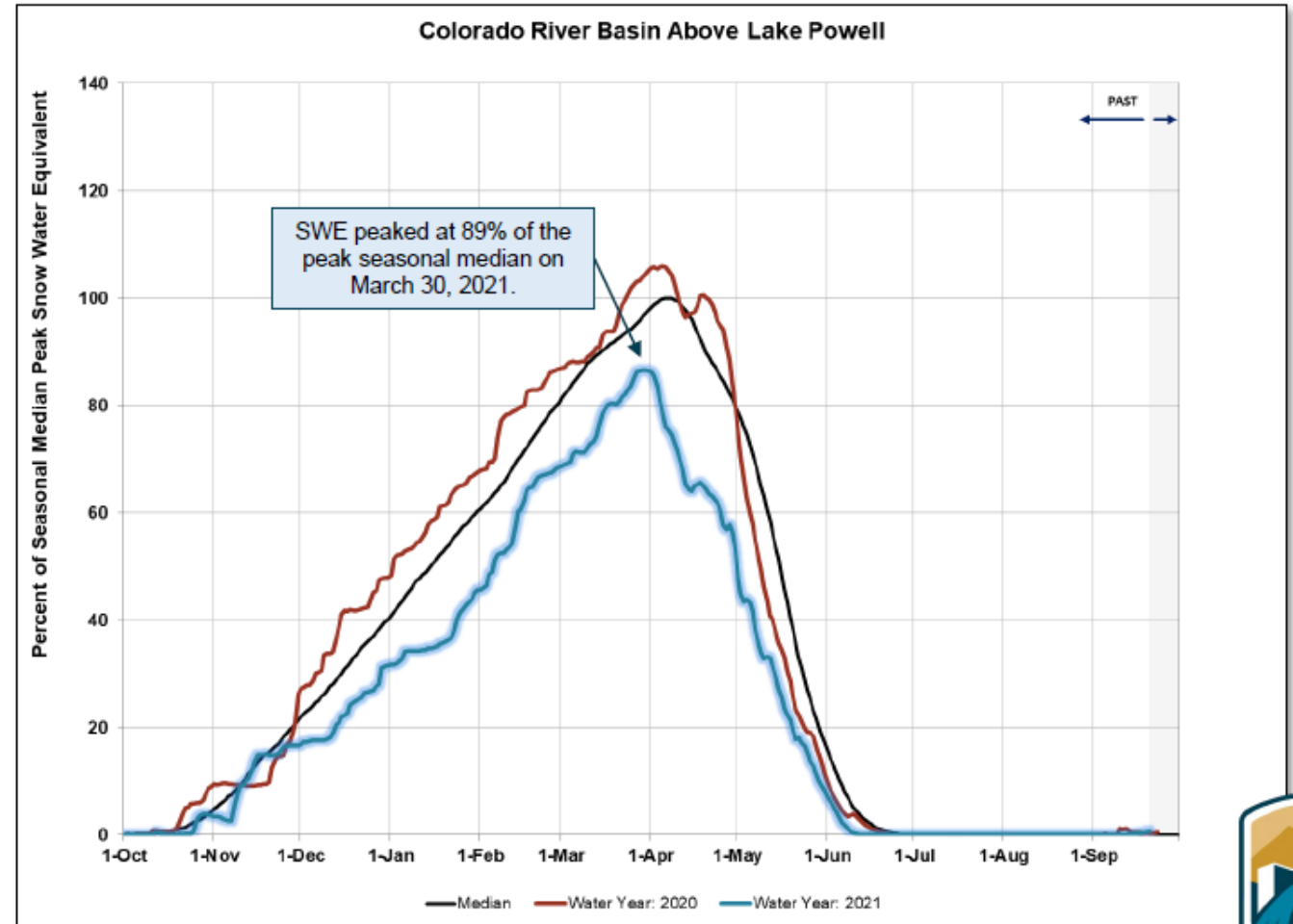


Upper Colorado River Basin Water Year 2021 Snowpack and Inflow into Lake Powell

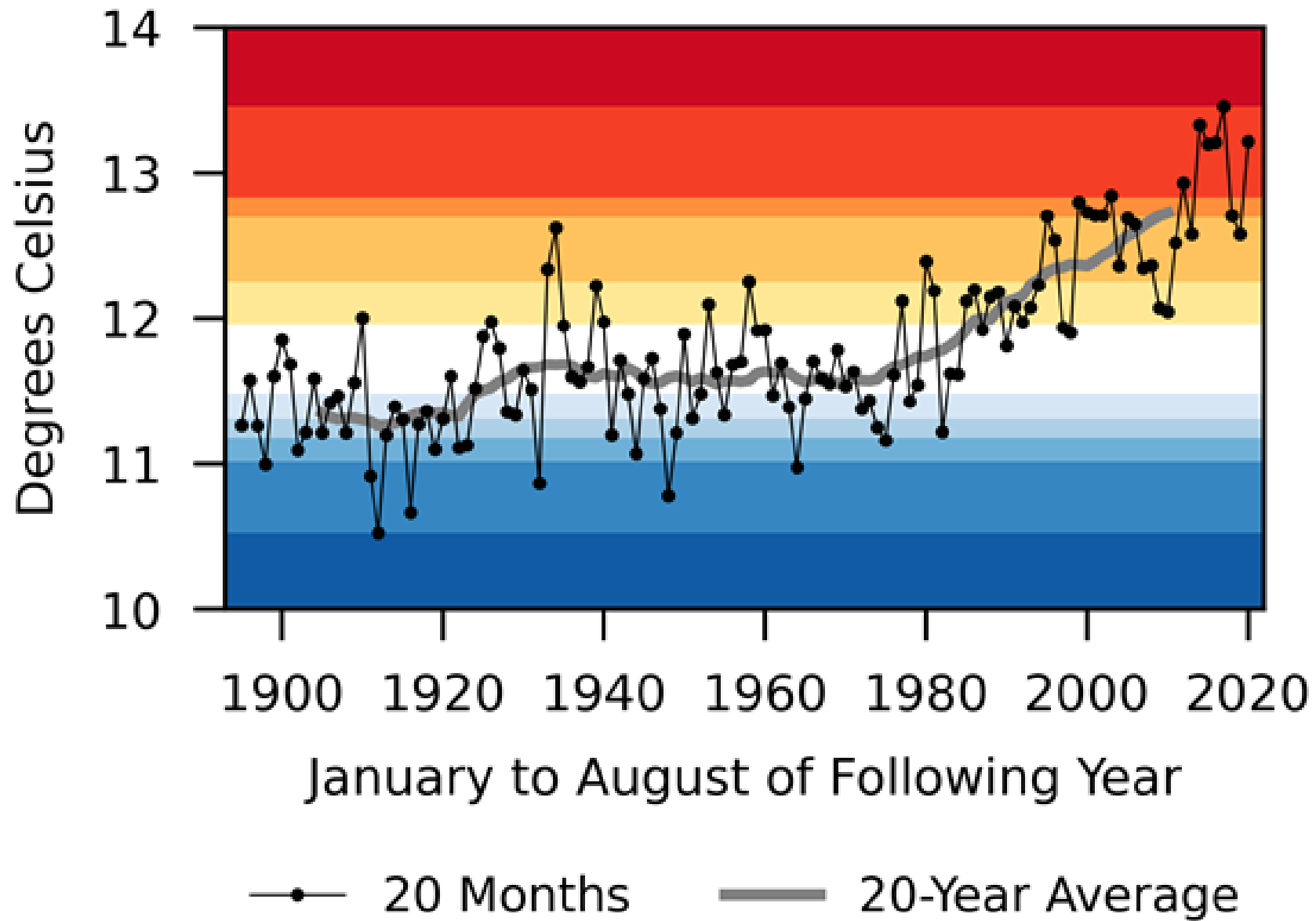
**Water Year 2021
Forecasted Inflow**
as of September 1, 2021

**3.56 maf
(4,390 mcm)**

33% of average

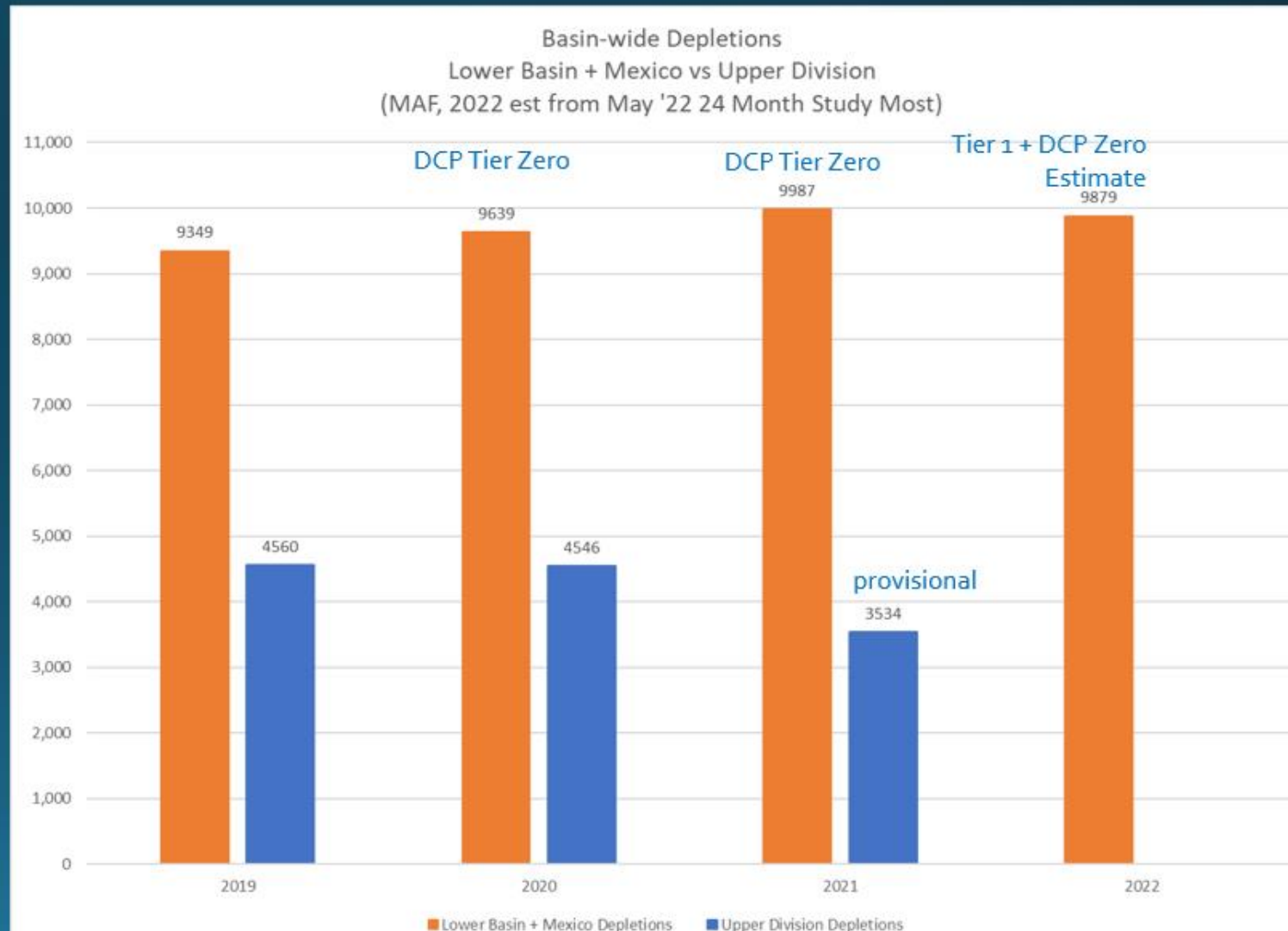


Southwestern U.S. Temperature



Basin Depletion Trends 2019 - 2021

- Depletions:
 - Mainstem Lower Basin + Mexico Depletions = Mead CU + Mead Evaporation + Mead Releases (releases serve mainstem CU, evaporation and losses)
 - Upper Basin Depletions = Uses + CRSPA evaporation, reported in CU&L and UCRC Natural Flow
- Trends:
 - Increasing Lower Basin uses 2019 – 2021, despite significant conservation and contributions
 - Lower Basin uses out of synch with hydrology, relying on storage and Lake Powell releases
 - Significant reductions in Upper Basin reflecting impacts of drought
- Sources:
 - BOR Lower Basin Water Accounting Reports
 - BOR CU&L including provisional Data
 - '22 May 24 Month Study Most Probable





Impact of DROA Water

- ☒ Short-term benefit to Lake Powell?
- ☒ Anticipated recovery at Flaming Gorge Reservoir?
- ☒ Anticipated recovery at Blue Mesa Reservoir?
- ☐ Long-term impact to Lake Powell?

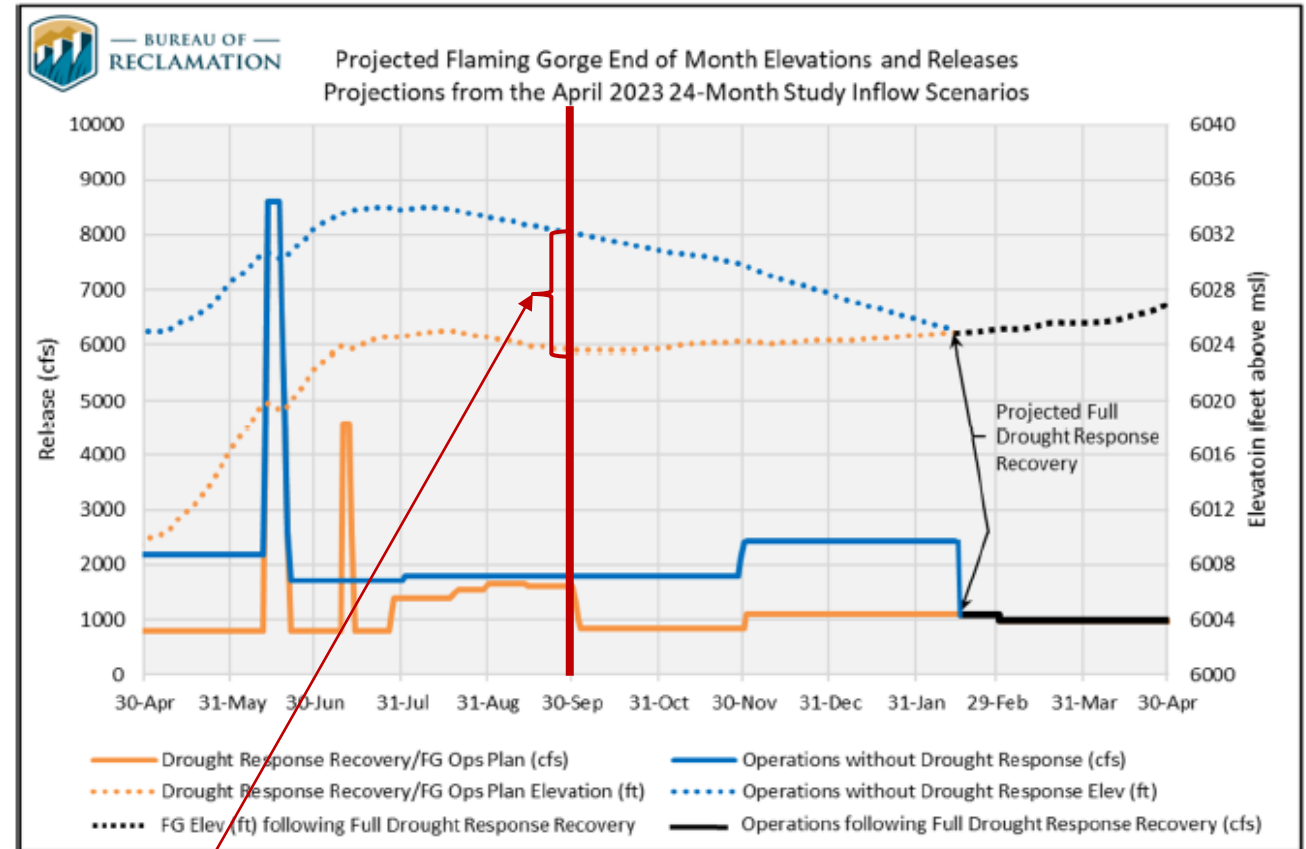


Drought Response Operations Agreement

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2023 DROA Plan Draft – Flaming Gorge

- Projected recovery of 588,000 acre-feet



Sept 30, 2023, DROA FG Balance* = ~333.5 KAF

Increased Lake Powell 2023 Balancing Due to Unrecovered DROA Water* = ~167 KAF

*Values based on 2023 DROA plan; Volumes based on Flaming Gorge Elevation Capacity Curve



Impact of DROA Water Accounting



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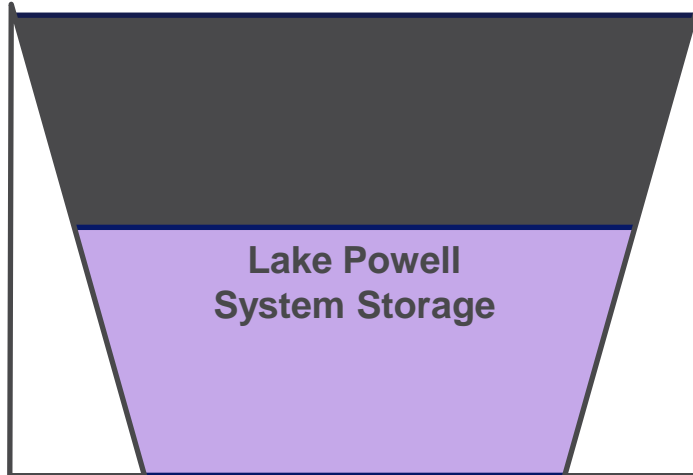


Long-term impact to Lake Powell?

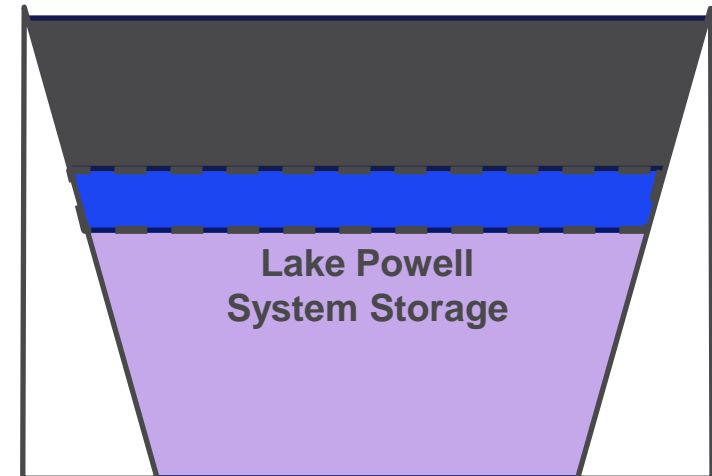
After upstream recovery, **storage in Lake Powell will be 130 KAF lower** than it would have been had DROA not occurred

With **separate accounting and full upstream recovery**, DROA water would not have caused a decrease in Lake Powell storage

What occurred:



What should have occurred:





RESOLUTION

of the

UPPER COLORADO RIVER COMMISSION

Clarifying Principles for Future Releases from Upstream Initial Units Under the 2019 Drought Response Operations Agreement

WHEREAS, in 2019, the Upper Division States (States) and the Secretary of Interior (Secretary) acting through the Bureau of Reclamation (collectively, the DROA Parties) entered into the "Agreement for Drought Response Operations at the Initial Units of the Colorado River Storage Project Act" (DROA), an element of the Upper Basin Drought Contingency Plan (DCP);

WHEREAS, in 2019, Congress authorized the DCP, including DROA, through the Colorado River Drought Contingency Plan Authorization Act, Pub. L. No. 116-14, 133 Stat. 850 (Apr. 16, 2019);

WHEREAS, the operating principle of DROA is to minimize the risk of Lake Powell falling below a minimum "Target Elevation," expressly defined as a water surface elevation of 3,525 feet. The Target Elevation was adopted to minimize the risk of Lake Powell declining below the critical elevation of 3,490 feet;

WHEREAS, DROA identifies three primary goals for any operation undertaken pursuant to DROA (Drought Response Operation):

- a) Help ensure the Upper Division States will continue fulfilling their interstate water compact obligations while exercising their rights to develop and utilize the Upper Colorado River Basin's (Upper Basin) Colorado River System compact apportionment (Continued Compact Compliance);
- b) Maintain the ability to generate hydropower at Glen Canyon Dam to protect a variety of purposes, including continued electrical service to millions of customers in the Southwest United States, continued funding for operation and maintenance of Colorado River Storage Project Act projects, continued funding of environmental and other programs, and safety contingencies for nuclear power plant facilities; and



Recent Emergency Measures: 2021 through 2026

DROA: 2021 release

Lower Division States: 500+ Plan

LTEMP: Lake Powell release adjustment

May 2022 Cooperative Action : 480 kaf holdback

DROA: 2022 release

Upper Division States:
5-Point Plan

SEIS: DSEIS, Lower Basin Alternative

Mexico: Minute 323 additional measures





Post-2026 Guidelines: Key Upper Basin Operational “Considerations”



- Fix supply/demand imbalance (Structural Deficit)
- Protect existing uses
- Acknowledge drier, more variable future
- Honor states’ rights to administer
- Prevent reservoirs from reaching critical elevations
- Rebuild depleted storage
- No favoritism
- No exclusive reliance on short-term forecasts



Colorado River Authority of Utah

H.B. 297 COLORADO RIVER AMENDMENTS

The Authority was established in 2021 through landmark legislation and was sponsored by the Speaker of the House and Senate President in the Utah State Legislature.





General Powers and Mission

01

The authority may advise, support, gather information, and provide input to the river commissioner

02

The mission of the authority is to protect, conserve, use, and develop Utah's waters of the Colorado River system

03

The authority may develop a management plan to ensure that Utah can protect and develop the Colorado River system and to work to ensure that Utah can live within the state's apportionment of the Colorado River system



Current Authority Membership



**Gene Shawcroft,
Chair**

COLORADO RIVER
COMMISSIONER OF
UTAH

CENTRAL UTAH
AREA: SALT LAKE,
UTAH, JUAB,
SANPÊTE, SUMMIT,
AND WASATCH
COUNTIES



Joel Ferry

GOVERNOR'S
APPOINTEE



**Zach
Renstrom**

VIRGIN RIVER AREA:
KANE AND
WASHINGTON
COUNTIES



**Candice
Hasenyager**

STATE OF UTAH
AREA: REMAINING
UTAH COLORADO
RIVER USERS AND
DIRECTOR OF UTAH
DIVISION OF WATER
RESOURCES



Dan Larsen

UINTAH BASIN
AREA: DUCHESNE
AND UINTAH
COUNTIES



Paul Tsosie

TRIBAL
REPRESENTATIVE



**Jay Mark
Humphrey**

PRICE AND SAN
RAFAEL AREA:
CARBON AND
EMERY COUNTIES

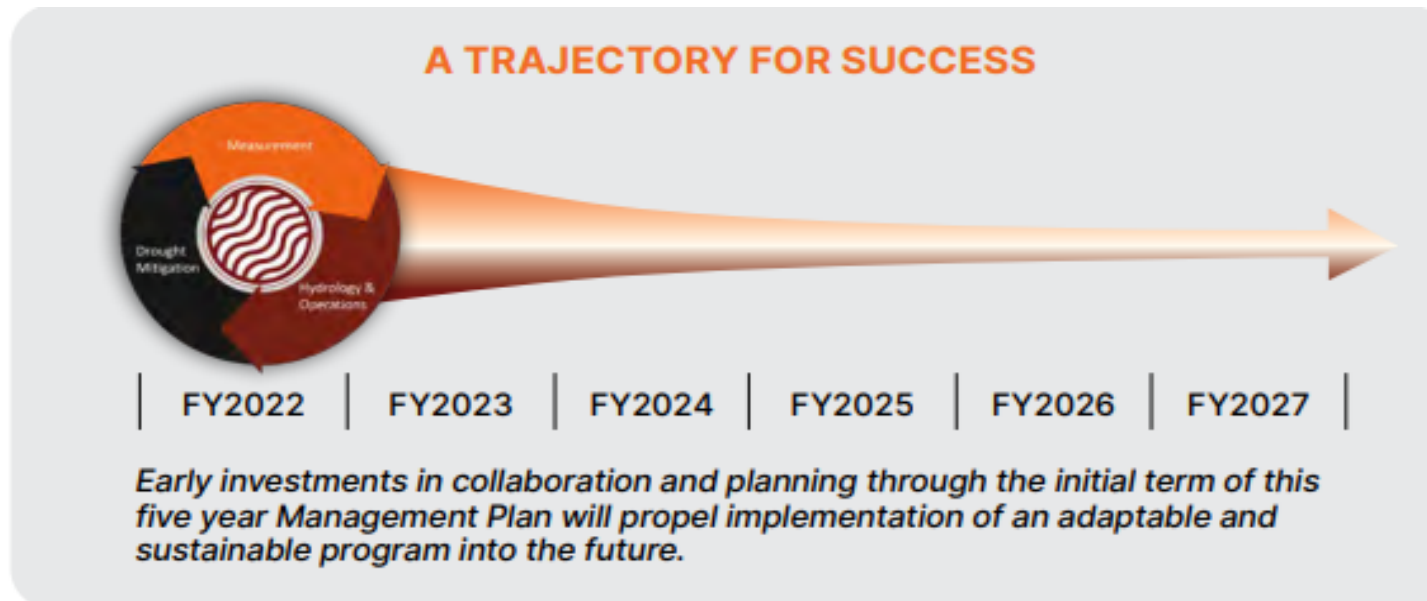
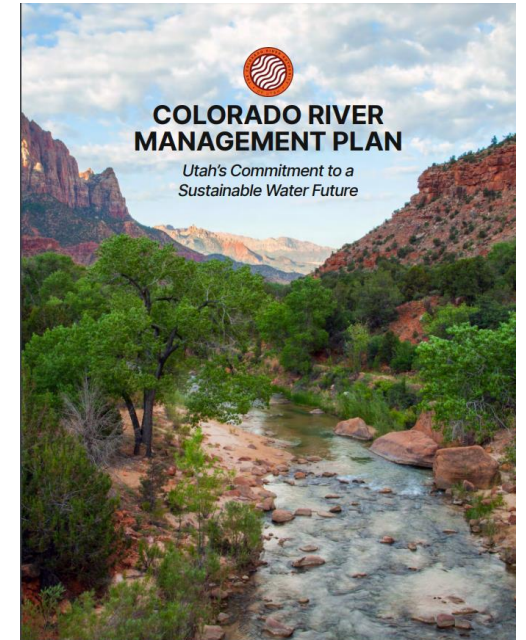




Five-year Colorado River Management Plan (FY 23-27, \$20.4 Million)

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- Measurement
- Hydrology & Operations
- Drought Mitigation

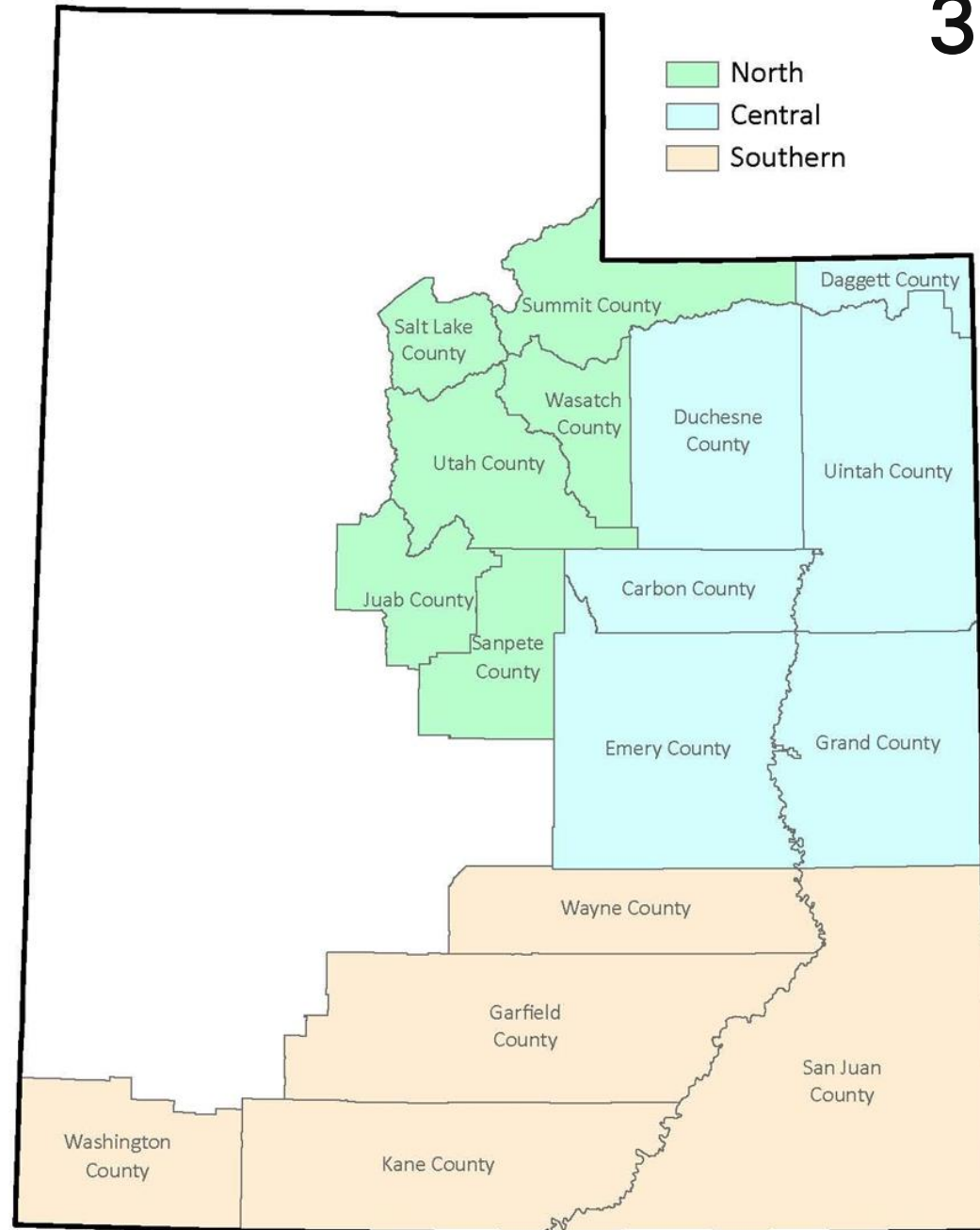




* Advisory Councils

- Mechanism for **Utahns to engage** in Colorado River discussions
- Source of citizen **input** to the River Commissioner and Authority Board
- Provide a venue for **diverse group of stakeholders** and interested citizens to recommend possible solutions to Colorado River challenges





3 Council Model

North

Salt Lake County
Summit County
Utah County
Wasatch County
Juab County
Sanpete County

Central

Daggett County
Duchesne County
Uintah County
Carbon County
Emery County
Grand County

Southern

Washington County
Garfield County
Kane County
Wayne County
San Juan County







“Defending Every Drop”

