

A scenic view of a mountain valley. In the foreground, a wooden signpost with multiple directional arrows points towards various locations: MT. POWELL, FRONT DESK, RESTAURANT, LODGING, SPECIAL EVENTS, BOAT HOUSE, and FALLS. The signpost is situated on a dirt path. In the middle ground, a calm lake reflects the surrounding greenery and mountains. The background features steep, rocky mountains under a bright blue sky with scattered white clouds.

Colorado River Update

IBCC

Durango, CO

October 18, 2018

Brent Newman - Section Chief - Interstate, Federal, and Water
Information Section, CWCB

The Challenging News

The 2007 Interim Guidelines are working as planned but hydrology has been worse than predicted.

- As a result of full use and dry hydrology, Lower Basin states are facing an unprecedented shortage declaration based on reservoir levels.
- The Upper Basin has been able to rely on storage from the CRSPA Units to remain safely in compact compliance under variable hydrology.
- The Upper Basin deals with hydrologic shortages every year – administration under prior appropriation is nothing new for our water users.

As Colorado River Basin reservoirs drop to near-record low levels, possibility of unprecedented water shortage declaration rises

Climate shift to hotter, drier conditions worsening current water crunch



Eric Baradat, Getty Images

The Colorado River is seen at the bottom of the

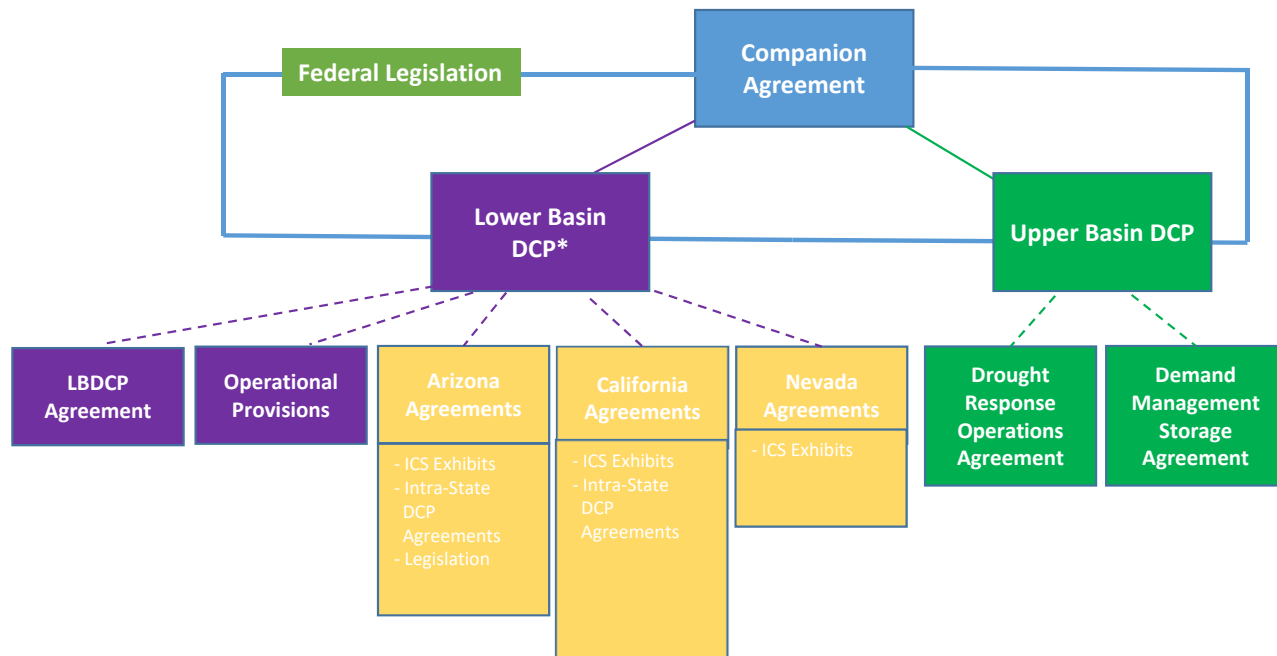
Colorado's Water Plan

- **“The state of Colorado will support strategies to maximize the use of compact water while actively avoiding a Colorado River Compact deficit.” (Chapter 9.1)**
- *What is being done to prevent administration?*
 - Interstate Drought Contingency Planning
 - Intrastate planning and implementation efforts

Drought Contingency Planning Update

- DCP is an ongoing, coordinated effort of the seven basin states and the federal government.
- Planning for drought response to reduce risks associated with reaching critical reservoir elevations at Lake Powell and Lake Mead.
- **Why?**
 - If critical elevations are breached, the system faces threats to ability to control own destiny – drinking water supply, irrigation, power production, environmental resource preservation, and overall sustainability.
- **Low Probability but High Risk**
 - Sensible to plan for the worst case scenarios to avoid potential controversy, conflict, and uncertainty.
 - Preparation for but not predicting need for implementation.

***Colorado River Basin Drought Contingency Plan
Documents and Agreements***



*Activates Section IV of Minute 323 (Binational Water Scarcity Plan)

Lower Basin DCP

- Contingency Planning
 - Implement voluntary reductions in water use beyond those required by the 2007 Interim Guidelines.
 - Includes a commitment by the U.S. to work to create or conserve Colorado River system water.
 - Incentivize ICS creation/storage.
- Sustainability planning
 - Recognizing need for longer-term mechanisms for addressing “Structural Deficit” in the Lower Basin. But DCP is not solving this deficit.

Lower Basin DCP

Lake Mead Elevation (ft)	2007 Interim Guidelines Shortages (kaf)		Voluntary Reductions (kaf)			Combined Reductions (kaf) (2007 Interim Guidelines Shortages + Voluntary Reductions)			
	AZ	NV	AZ	NV	CA	AZ	CA	TOTAL	
1,090	0	0	192	8	0	192	0	200	
1,085	0	0	192	8	0	192	0	200	
1,080	0	0	192	8	0	192	0	200	
1,075	320	13	192	8	0	512	21	533	
1,070	320	13	192	8	0	512	21	533	
1,065	320	13	192	8	0	512	21	533	
1,060	320	13	192	8	0	512	21	533	
1,055	320	13	192	8	0	512	21	533	
1,050	400	17	240	10	0	592	25	617	
1,045	400	17	240	10	200	640	27	867	
1,040	400	17	240	10	250	640	27	917	
1,035	400	17	240	10	300	640	27	967	
1,030	400	17	240	10	350	640	27	1,017	
< 1,025	480	20	240	10	350	720	30	1,100	

Upper Basin DCP

- Goals:
 - Reduce or eliminate probability of Lake Powell reaching minimum power pool elevation through 2026.
 - Ensure the continued operation of the 2007 Interim Guidelines through 2026.
 - Combined with expected action in Lower Basin, increase the synergistic benefits for the Basin as a whole.

Upper Basin DCP

Essential elements in progress, as identified by the UCRC:

- Supply Augmentation (weather modification, phreatophyte management)
- Develop Drought Response Operations for CRSP Facilities.
- Explore feasibility and opportunities for Upper Basin demand management.

Upper Basin DCP Agreements

* Drought Response Operations - (CRSPA Initial Units)

- ✓ Conserve water in LP or move available water from Upper CRSPA Units (Aspinall, Flaming Gorge, Navajo) to protect LP target elevation.
- ✓ Allow for subsequent recovery of storage at same facilities.
- ✓ Take actions consistent with authorities, permits, contracts for water and power, etc.

* Demand Management Storage

- ✓ Secure authorization to store, at no charge, any intentional reductions in consumptive use made to help assure Upper Basin's continued compact compliance.
- ✓ Provide the UCRC and Upper Division States sufficient flexibility to explore the feasibility of, and evaluate viable options for, developing an Upper Basin Demand Management Program.

CRSP Reservoir Operations



Navajo Reservoir



Flaming Gorge
Reservoir

Blue Mesa
Reservoir



Lake Powell

- Agree on operations to implement under emergency conditions to maintain minimum power pool elevation at Lake Powell.
- By conserving water (temporarily) in Lake Powell or moving water available from upper CRSP facilities

Demand Management

- UCRC Resolutions in 2014 and 2018 – explore **feasibility** of:
 - Temporary
 - Voluntary
 - Compensated
 - Reduction in diversions to conserve water that is otherwise consumptively used
- To help avoid potential need for involuntary curtailment of Colorado River uses. Specifically geared to ensure compact compliance.
- 2nd line of defense

Demand Management Considerations

- **Goal** – evaluate alternatives to facilitate intentional reductions in consumptive use through willing participant arrangements.
- **Challenges** – Working within the prior appropriation system and respecting way of life of water rights holders, to facilitate voluntary reductions in consumptive use on willing participant basis.
- **Lots of questions exist** – Feasibility, accounting, implementation, management and administration. Need to be investigated before determining if viable.
- **Evaluation mechanisms** – Currently include:
 - System Conservation Pilot Program (UCRC)
 - UCRC next steps workgroup
 - Others (intra-state or academic).

Intra-Colorado Efforts

- Working groups and stakeholder efforts within Colorado are underway to examine the risk associated with compact compliance, as well as the impacts of curtailment avoidance strategies.
- Current forums:
 - Compact Compliance Study
 - Colorado Water Bank Work Group
 - System Conservation Projects
 - Risk Studies
 - Shepherding White Paper and Workshops
 - Colorado Water Plan
- ***Important for the state to consider input and interactions between all these, and how they may inform a state position on these ongoing efforts.***

CWCB Demand Management Outreach

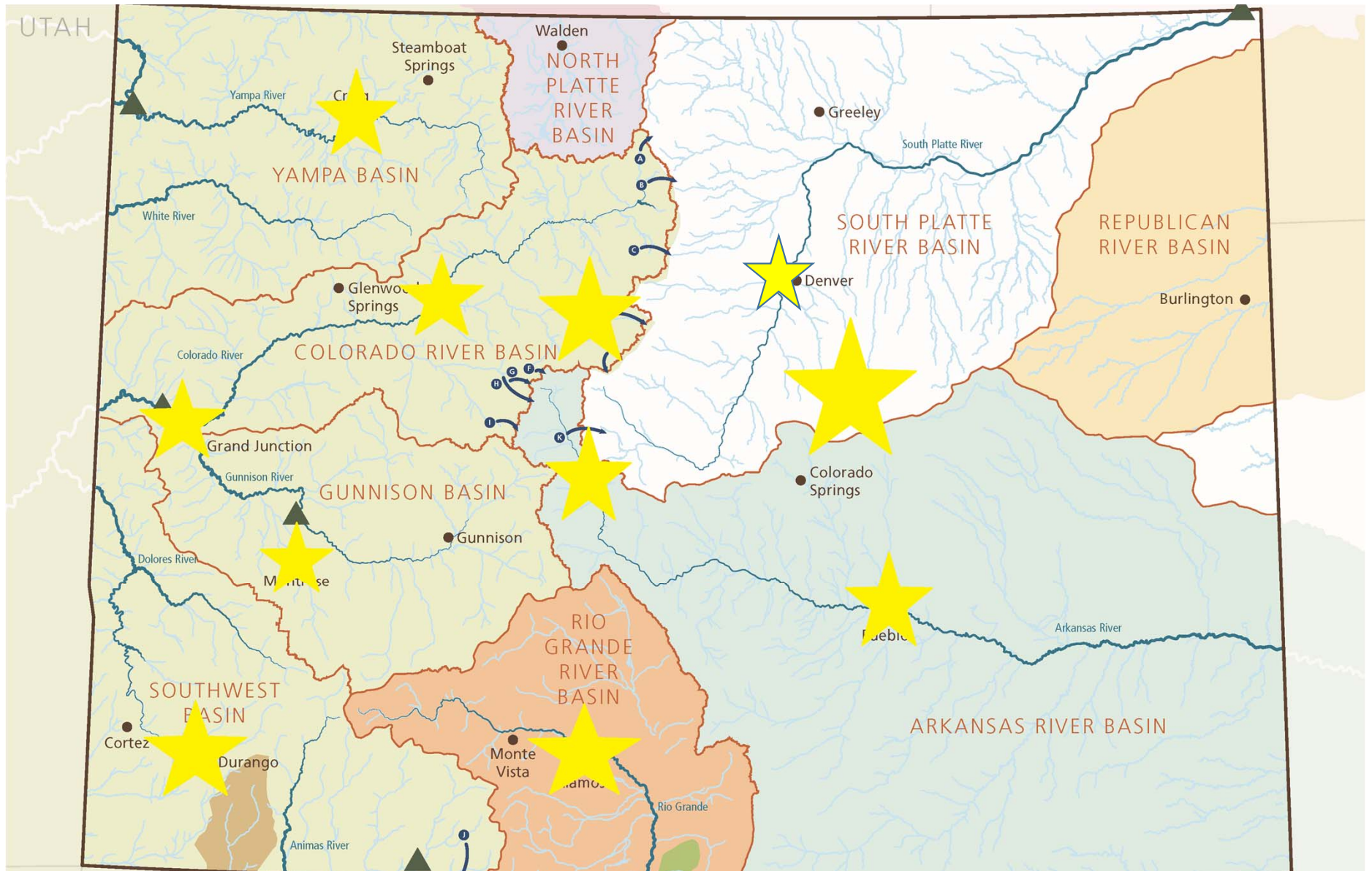
- Direction of the Board – November 2017/January 2018
- Identify and evaluate possible options for avoiding involuntary compact curtailment
 - Consistent with direction from Colorado's Water Plan
- Focus on Demand Management considerations to inform progress on the interstate and intrastate fronts.
- Thorough and transparent outreach to water users and stakeholder community to provide information about Colorado River issues and DCP evolution

CWCB Demand Management Outreach

- Southwestern Water Conservation District Annual Seminar – Durango
- Arkansas Basin Roundtable – Pueblo
- West Slope Basin Roundtables' Caucus – Grand Junction
- Interbasin Compact Committee – Keystone
- Front Range Roundtables' Caucus – Parker
- Rio Grande Basin Roundtable – Alamosa
- Yampa/White/Green Basin Roundtable – Craig
- Gunnison Basin Roundtable – Montrose
- Water Bank Working Group – Salida
- Water Resources Review Committee – Denver and Vail

Hey Look More Outreach

- Southeastern Colorado Water Conservancy District Board Meeting - Pueblo
- Water Resources Review Committee – Denver and Vail
- Summer Water Congress – Vail
- September CWCB Board Meeting – Steamboat
- Southwest Basin Roundtable – Durango
- Metro Basin Roundtable – Denver
- DCP Webinar – Livestreamed from Denver – 260 participants – 90 views
- IBCC Fall Meeting - Durango



CWCB Demand Management Outreach

- CWCB will continue to speak at forums statewide to:
 - Provide context and updates on Colorado River Basin activities
 - Obtain input and feedback on various demand management considerations
- Workshops and technical outreach
 - Identify specific legal, technical, and policy questions associated with demand management
- **Takeaway: Not developing any position regarding whether and how to develop a demand management program in Colorado in a vacuum. Working with stakeholders and water users to preserve options and opportunities while we seek engagement and input to consider positions moving forward.**

Demand Management Considerations

- Consistency with prior appropriation and state water laws
- Preservation of water rights
- Economic and environmental considerations
- Monitoring and verification of water conservation
- Administration and accounting
- Sideboards/limitations to consider
- Water court involvement
- Parity – benefits and burdens shared
- Many others

Temporary. Voluntary. Compensated.

- **Contingency** planning
 - Being prepared for the worst case scenario
 - All state efforts, with UCRC and intrastate stakeholders, have been geared to assessing feasibility of “temporary, voluntary, compensated” scenario
 - **CWCB and AG staff are not assessing, pursuing, or recommending to the Board any type of “anticipatory curtailment” scenario at this time**

Colorado's Water Plan: Demand Management Policies

“Demand management efforts would be based on **voluntary, temporary, and compensated** reductions in eastern and western slope consumptive use. Willing water users would be temporarily compensated for voluntary reductions of consumptive use, and such reductions in use would be monitored and verified to ensure a benefit to the Colorado River system.”

- Section 9.1

Board Direction

- CWCB directed staff to:
 - Perform outreach and public engagement efforts on DCP implementation documents.
 - Develop for Board review a draft policy statement regarding CO River basin demand management strategies within Colorado.

Timeline

Interstate Drought Contingency Plan

- **September 18** – 7-States and Reclamation agreed the concepts in draft documents address the scope of the DCP. Final Working Draft documents to be made available after clean up (estimated, beginning of October).
- **October** – Outreach Performed. Bring DCP documents to the Board; Public Webinar to be scheduled – *Tentatively* – October 9.
- **October – November** - If possible, LB obtain approvals for committing to obligations in LB DCP, Commission confirms path forward, DOI conducts internal review
- **November - December** – If possible, Parties demonstrate path forward at CRWUA. Federal legislation coordination as appropriate.
- **January 2019** – If possible, Az legislature provides approval to execute documents. Federal legislation secured and Parties execute documents.

Intrastate Demand Management Evaluation

- **October – 2019** – Continue demand management outreach (IBCC, roundtables, etc.).

Conceptual Framework

“The collaborative program will develop in concert with intra- and interstate water policies. The IBCC and roundtables can provide an important forum for sharing the work of ongoing interstate negotiations, scoping technical analyses, and identifying issues of concern at the stakeholder level, as well as providing input to the CWCB as it manages and conducts the technical, legal, economic, and other studies necessary for implementation.”

- Conceptual Framework, Chapter 8

Moving Forward

- State team will continue to work cooperatively with interstate partners on DCP efforts.
- CWCB demand management outreach will continue
 - Do NOT want to set up any program in a vacuum
 - Will continue to work with stakeholders to consider observations, concerns, and ideas of Coloradans directly affected or impacted by potential program.
 - Iterative process – will continue to revisit with interested parties to evaluate options and possibilities.
- Colorado River issues affect the entire state – success on this front will require all water users and stakeholders being actively engaged, involved, and informed as we move forward.

Questions, comments, stern guidance:

Brent Newman, CWCB

Brent.newman@state.co.us