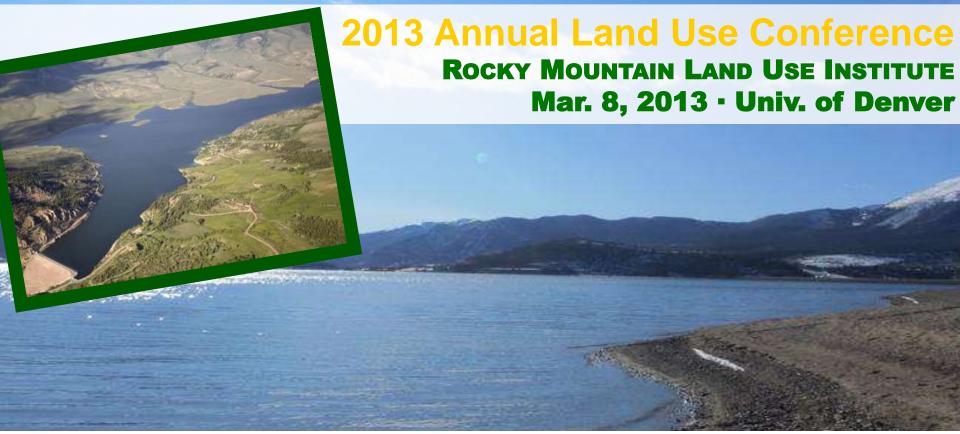
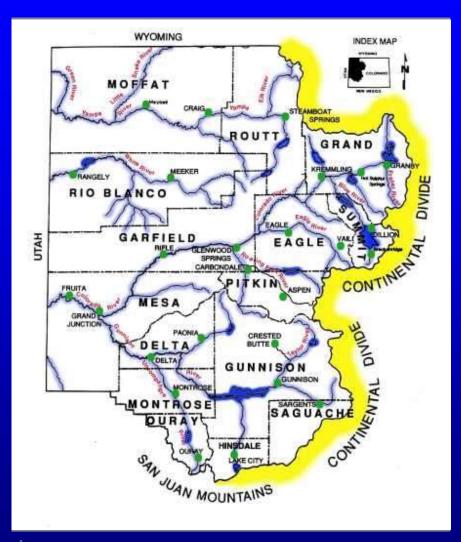
The Colorado River: Intergovernmental Agreements





Protecting Western Colorado Water Since 1937

Colorado River District



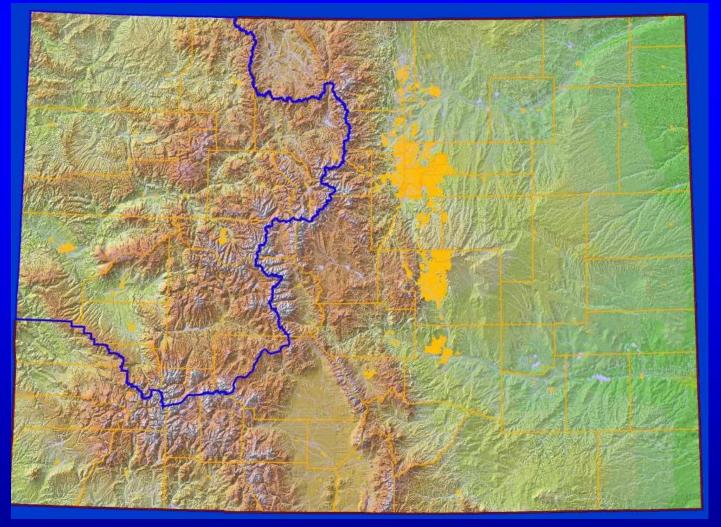
Formed 1937 – state statute

15 counties west of continental divide

15 board directors one county, one vote

Mill levy & water activity enterprise

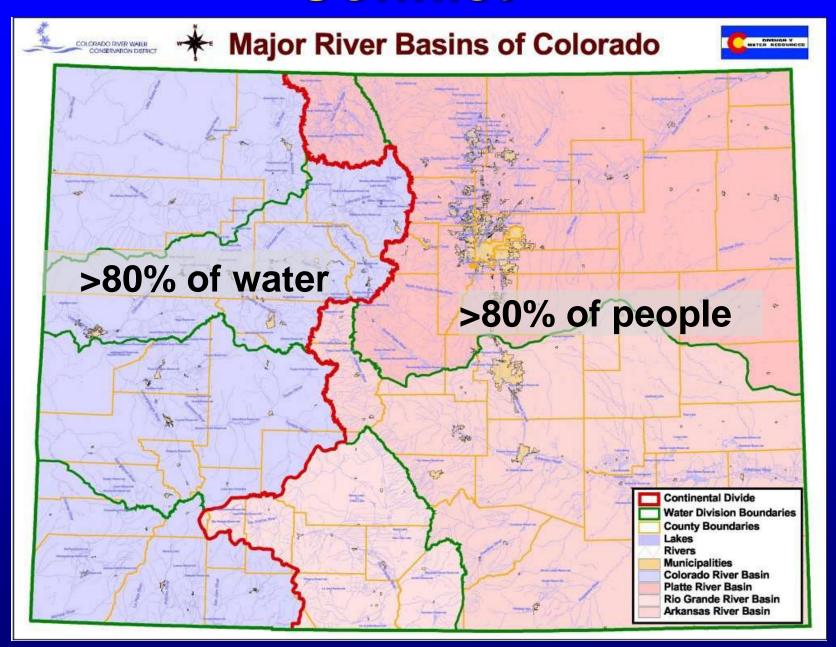
One of 2 west slope, 4 statewide conservation districts



COLORADO RIVER DISTRICT MISSION:

To lead in the protection, conservation, use and development of the water resources of the Colorado River basin for the welfare of the District, and to safeguard for Colorado all waters of the Colorado River to which the state is entitled.

Conflict



Historical West Slope Perspective

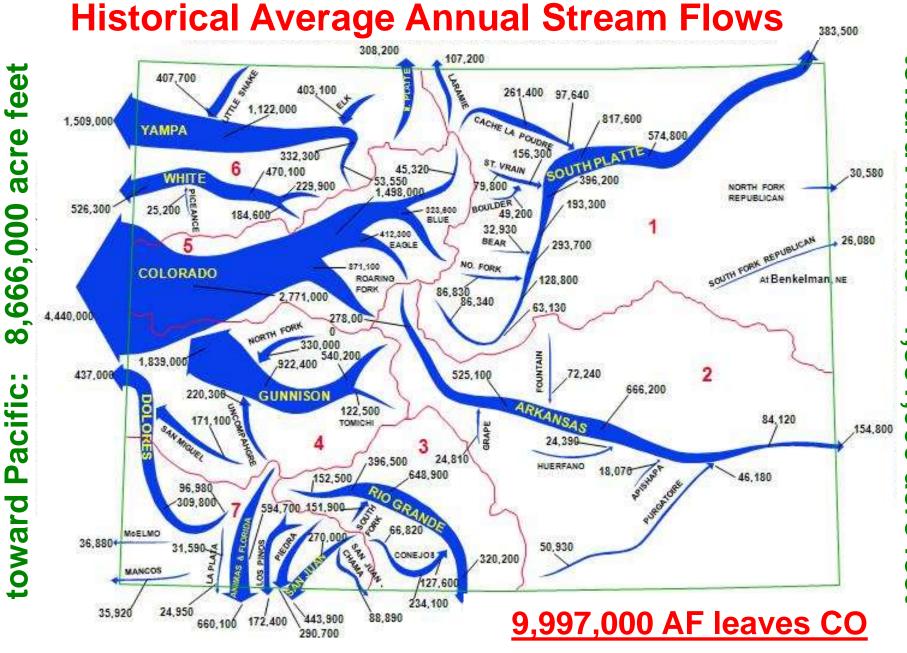


West Slope

Front Range

** Colorado River Basin





revised: 2011

Colorado Division of Water Resources

What led to the CRCA?

1950's Denver Water found need for another major water source and built Dillon Reservoir on the Blue River and upstream from Bureau of Reclamation's Green Mountain Reservoir



Legal disputes ensued over whether Dillon water rights were junior or senior to Green Mountain

Litigation continued for 50 years without clear resolution on these "Blue River Decrees," including dispute over the use of Blue River water beyond Denver's designated service area



What else led to the CRCA?

2002-03 drought highlighted Denver's need & desire for more water & to enlarge their Gross Reservoir

2006 Denver filed diligence on conditional Dillon water rights & began permitting process for Gross

2006 Colorado River District and other West Slope parties developed alternative proposal to traditional project permitting

2007 Denver rejected proposal & submitted their own alternatives which the West Slope rejected



Execution of the CRCA

2007 negotiations with a mediator between major West Slope players & Denver began & continued for 5 years

April 2012 Gov. Hickenlooper announces proposed CRCA

Full execution of the 50-page (120-pgs attach) agreement is on-going

Implementation complicated but encouraging

Full report, summary, presentations, press coverage, images, videos & more visit: ColoradoRiverDistrict.org

"...solution we should strive for in our water challenges."

"...cooperative agreement marks significant step ..."

SEN. BENNE

West Slope Interests

- Protect and restore streamflows
- Secure water for future consumptive use
- Resolve Blue River Decree issues
- Protect recreational assets



Colorado River District

CRCA: Colorado River Cooperative Agreement

West Slope Interests

- Preserve the Shoshone flow regime
- Stress East Slope conservation & reuse
- Define the Denver Water service area



Key Provisions

Denver Water:

- fixes its service area
- commits to further conservation & reuse
- provides \$25 million & up to 2,000 acre feet of enhancement water
- allows for further consumptive use in Grand & Summit Counties

More Key Provisions

Denver Water:

- agrees to no further water development from the Colorado River basin absent West Slope consent
- agrees to participate in the Shoshone Outage Protocol

All parties agree to a Green Mountain Reservoir administration settlement



More Key Provisions

- Denver Water and contract holders agree to West Slope "abstentions" (see subsequent slides)
- WISE Project and leases provide a future West Slope revenue stream
- West Slope and Denver agree to a Blue River Decree Settlement
- Moffat System Project



West Slope Abstentions

- Applies to entities outside Denver's Service
 Area that contract for water from Denver
- Permanent within Water Div. 5 (above the Gunnison/Colorado confluence)
- Temporary in Water Div. 4, 6, & 5 (below the Gunnison/Colorado confluence)

Div. 5 Permanent Abstention

Abstain permanently from pursuing or participating in any project that would result in any new depletion from Water Div. 5 (above the Gunnison/Colorado confluence) except Eagle River MOU projects

Abstain from seeking formal approval of any aspect of a project in a regulatory or judicial

Various planning activities such as feasibility studies are not prohibited.

CRCA: Colorado River Cooperative Agreement

Temporary Abstention

Abstain from pursuing or participating in any project that would result in diversions from the Colorado River Basin within Water Div. 4 & 6, or downstream from the Gunnison/Colorado confluence in Water Div. 5 for a period of 25 years (which period may be modified).

What does the **CRCA** signify for Colorado's land use picture?

Important points

Colorado water politics have always been about land use

East Slope - TMD's slated to support new urban land development & supplemental irrigation demands

West Slope - firm up existing agricultural supplies and open up new lands for "reclamation"

HB-1177 IBCC Roundtable Process

Large gap in future Front Range demands vs supply - Denver in relatively good shape

Building consensus to "preserve" Colorado's agricultural economy

Available choices: conservation, reuse, new supplies, agricultural conversions

What about "smarter growth?" Grow up not out!

New Supplies

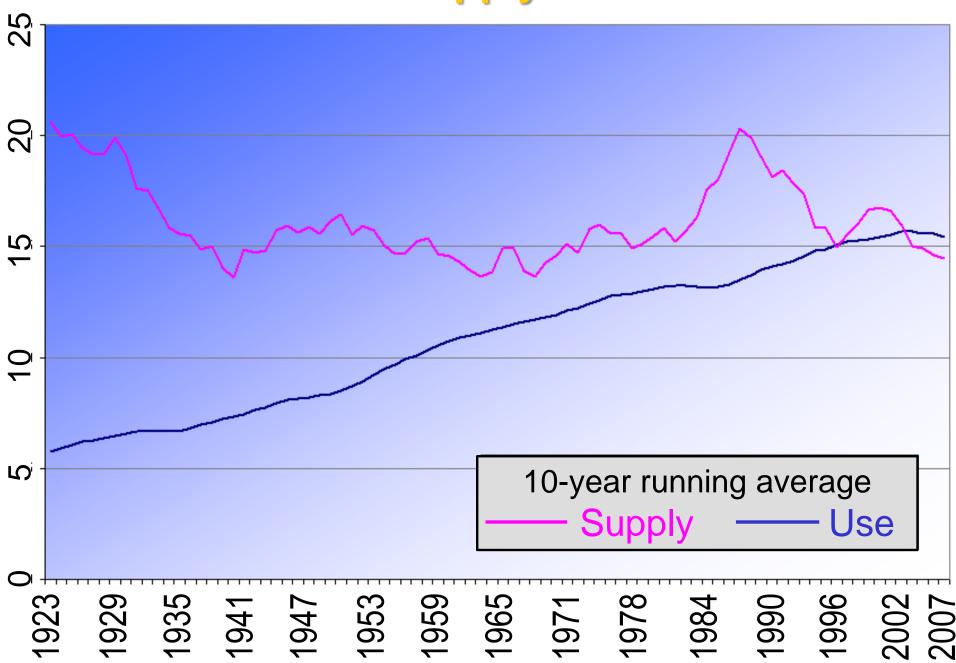
Long standing perception is that Colorado has a lot of Colorado River water left to develop

<u>Is this really true?</u>

It depends on the hydrology – with climate change – probably <u>NO</u>



Basin Water Supply and Water Use

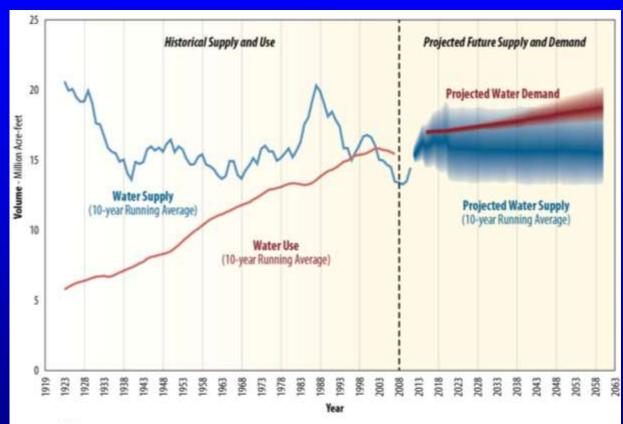


Projected Future Colorado River Basin Water Supply & Demand

Ave. supply & demand imbalances by 2060 are approx. 3.2 MAF

This imbalance may be more or less depending on the supply & demand scenario

Imbalances have occurred with deliveries being met from reservoir storage



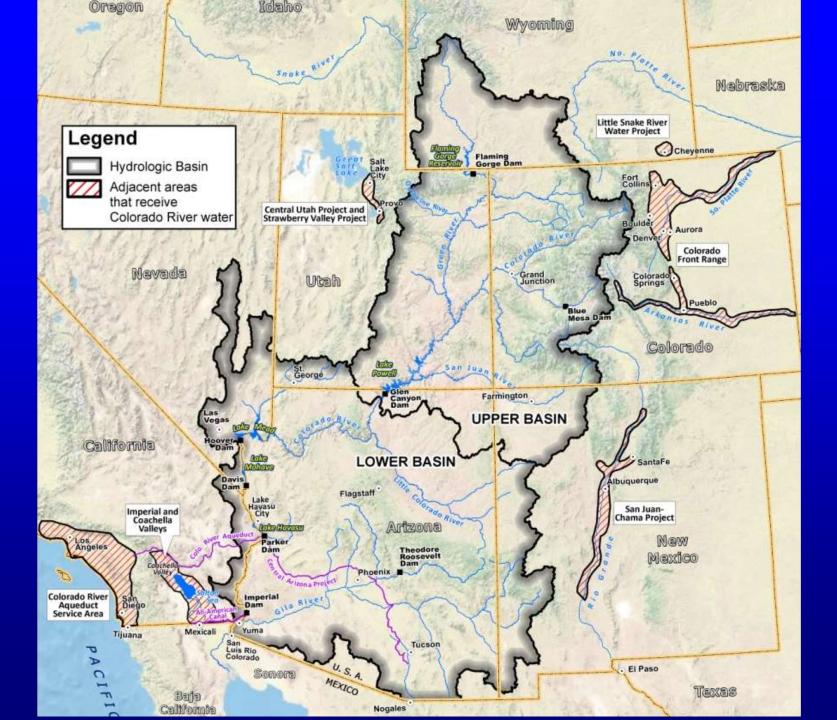
Notes:

Water Supply represents natural flow as measured at the Colorado River above Imperial Dam, Arizona

Water Use and Demand include deliveries to Mexico in accordance with the 1944 Treaty with Mexico and losses such as those due to reservoir evaporation, native vegetation, and operational inefficiencies.

Projected Water Supply is computed as the average 10th, 50th (median), and 90th percentiles of the Study's 4 water supply scenarios. The average of the medians is indicated by the darker shading.

Projected Water Demand is represented by the Study's 6 water demand scenarios. The median of the scenarios is indicated by the darker shading.



Law of the River Allocations

7.5 MAF to Upper Basin (%'s)1

7.5 MAF to Lower Basin (4.4 CA; 2.8 AZ; 0.3 NV)²

1.0 MAF additional to Lower Basin³ (i.e., tributary development)

1.5 MAF to Mexico

17.5 MAF Total Allocated 'on paper'

1 1922 Colorado River Compact, 1948 Upper Colorado River Compact
 2 Colorado River Compact, 1929 Black Canyon Project Act, 1964 AZ v. CA
 3 1922 Colorado River Compact
 4 Treaty of 1944



Comparison of Flow Scenarios

20 yr mean 1988-2007*
 13.2 MAF/yr

25 yr mean 1988-2012*
 13.3 MAF/yr

Basin Study Climate Change 13.6 MAF/yr

• 60-yr mean 1953-2012* 14.0 MAF/yr

Important question: Are we already experiencing the impacts of climate change aka a 'new normal'?

*Source: UCRC Annual Reports (2012 estimate) For Natural Flows at Lee Ferry, AZ



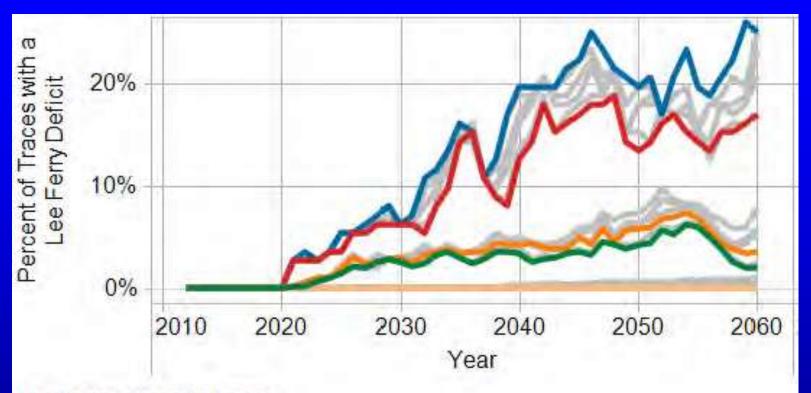
Water Demand Assessments

Based upon USBOR and State reports

Use has increased 10% (Upper Basin) and 23% (Lower Basin) – '71-'99

Future demand increases projected to be greatest in CO (0.64 MAF) & AZ (1.2 MAF) by 2060

Vulnerability: Lee Ferry Deficit



Highlighted Scenario Names

- Paleo Conditioned, Enhanced Environment (D1)
- Paleo Conditioned, Current Projected (A)
- Observed Resampled, Rapid Growth (C1)
- Downscaled GCM Projected, Enhanced Environment (D1)
- Downscaled GCM Projected, Rapid Growth (C1)
- All Other Scenarios

Summary

Colorado probably has water to develop - but not in every year

Future Colorado River supplies should be considered an "intermittent" supply - with possible long periods of zero supply

Increased Colorado River use will decrease the reliability of existing (post-compact) water supplies

Grow "up" not "out"

Summary (con't)

Develop urban / agriculture partnerships on both East Slope & West Slopes

Develop new re-use & conservation technologies

Bottom line:

the CRCA is an excellent start



CRCA: COLORADO RIVER COOPERATIVE AGREEMENT