

IBCC Colorado River Basin
1. June 24, 2013, CBRT Minutes

2013 Legislative update, Upper Colorado Basin Risk, Colorado Supply Plan, Basin Reserve Account Grant Requests

1. **Next Meeting: July 29, 2013, Glenwood Springs Community Center, 12:00 P.M.**
2. **Reporter: These minutes were prepared by Ken Ransford, Esq., CPA, 970-927-1200, kenransford@comcast.net.**
3. **Upcoming Meetings:**
 - a. July 15, Western Slope Caucus, Colorado River District, Glenwood Springs, 10:30 AM
 - b. July 18, Interim Water Committee meeting chaired by Senator Gail Schwartz, held in conjunction with the Colorado Water Workshop, Gunnison.
 - c. July 23, 1:30 PM, Agricultural Irrigation Efficiency, Colorado Water Congress State Affairs Committee, 1590 Logan, Denver.
 - d. July 29, 12:00 PM, Colorado Basin Roundtable, Glenwood Springs Community Center
 - e. August 6, 2013, IBCC meeting.
 - f. August 13, 2013: Colorado Water Congress State Affairs committee meeting – Agriculture Irrigation Efficiency, 1590 Logan, Denver, 11:30 AM
 - g. August 21-22: Colorado Water Congress summer meeting Steamboat Springs
4. **Attending members:** Kim Albertson, Ken Baker, Randy Baumgardner, Paula Belcher, Jacob Bornstein, Art Bowles, Caroline Bradford, Stan Cazier, Steve Child, Angie Fowler, Mark Fuller, David Graff, Karl Hanlon, Hannah Holm, Bruce Hutchins, Diane Johnson, Wes Mauz, Louis Meyer, Ken Neubecker, Chuck Ogilby, Jim Pokrandt, Rachel Richards, Karn Stieglemeier, Brent Uilenberg, Mark Wageck, Lane Wyatt.
5. **Visitors:** Dan Birch, Kelly Beal and Lara Chartrand, Tri-State Electricity, Gerry Knapp, Aurora Water, Eric Kuhn, Jamie Kurbjen, Summit County, Becky Mitchell, CWCB, Jim Pearce, P.E., Mike Spade, Mountain Meadows Irrigation company, Chris Treese, Pat Wells, Janet Williams, Leonard Rice Engineering.
6. **Basin Reserve Account funds include approximately \$515,000 in the Colorado Basin Reserve account and \$4.8 million in the statewide reserve account.**
7. **The Colorado River is dropping fast; the river gage below Palisade indicates:**

	June 17	June 24
22 year average	8,000 cfc	6,800 cfs

2013	4,500 cfs	2,500 cfs
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8. **Legislative update, Chris Treese, Colorado River District**

- a. **Wildfire mitigation:** Grant money is available for wildfire mitigation, HB 1191.
- b. **Grey water** (water used in homes other than toilets or kitchen sink) can be recycled, and municipalities must pass ordinances permitting this; HB 144.
- c. **Bill to divert severance tax revenue** funding away from the CWCB did not pass, HB 135.
- d. **CWCB projects funding** bill did pass. CWCB also received \$30m additional funding that had earlier been diverted (out of \$173m total diverted); HB 181.
- e. **Oil and gas production spills** that exceed 120 gallons must be reported; HB 1278.
- f. **Agricultural efficiency:** bill to permit farmers to adopt efficient irrigation practices and protect additional water left in the stream did not pass. But, farmers who conserve water by enrolling land in a federal land conservation program, or who participate in a municipal water conservation program, will receive credit for this and not be charged with 0 consumptive use in later water court change cases; SB 19.
- g. **Carryover storage:** Water providers that retain water in storage will get credit for water stored that isn't released, and conditional water rights can be made absolute; SB 41.
- h. **Erroneous water decrees** (for instance, a head gate is incorrectly located in a decree) can be fixed administratively without undergoing the expense of a full-blown adversarial water court proceeding; SB 78.
- i. **Legacy ditch:** If a decree does not specify the acreage under irrigation (and this hasn't been already determined in another water court change case), farmers will be able to irrigate the maximum acres that were irrigated in the first 50 years after the decree, for water decrees prior to 1937; SB 74.
- j. **Minimum water needed for new development:** County can decide when water supplies for new development proposals are adequate; SB 258.
- k. **Federal government cede federal lands** to the state; this did not pass; SB 142.
- l. **Water rights on federal lands** leased to private parties remain with the federal government: Several bills were introduced that tried to allow water rights on federal lands to revert to the private sector. A federal bill has been introduced to

state that if a rancher develops a well on BLM land to fill a stock pond, the resulting water right remains with the federal government. Alternatively, if a ski area develops water rights to expand its operations, title to the water rights must remain with the federal government. The House passed a resolution stating that this was bad policy.

- m. **Alternative water transfer pilot projects** encouraged; HB 1248. The CWCB will fund up to 10 pilot projects over 10 years to try alternative transfer methods to permanent buy and dry. These projects can only be in the South Platte, Arkansas, Rio Grande, and Colorado River basins, and no more than 3 projects can be in any basin. Parties enrolling in pilot projects cannot be charged with reduced historic consumptive use in change proceedings.

9. **Legislative update, Senator Gail Schwartz**

- a. Senator Schwartz chairs the Water Resources Interim Committee, which is meeting 8 times this summer to bring back legislation to encourage irrigation efficiency. The goal is to protect water rights and promote irrigation efficiency. The Committee will focus on Sections 3 and 4 that were cut from SB 19; these were designed to permit farmers to adopt efficient irrigation practices without running the risk of abandoning additional water that is left in the stream. This is based on SB 75 introduced by Senator Brophy that did pass that provides that groundwater irrigators who do not use the end gun on rotating sprinklers will not be charged with abandoning the unused water.
- b. The Colorado Water Congress has established a subcommittee to address this and irrigation efficiency in general; Ken Ransford is on this subcommittee. It meets next on August 13 in Denver, and again on August 21-22 in Steamboat Springs.
- c. 800 bills were introduced by the General Assembly (!), 400 passed, and governor Hickenlooper did not veto a single one. 95% of the bills received bipartisan support. Each legislator can introduce 8 bills each session, and Interim Water Committee bills do not count against this 8-bill limit.
- d. Senator Schwartz is also working on the Colorado Water Plan that Governor Hickenlooper has called for. He is personally passionate about this issue, and has made this a personal goal of his administration.
- e. Senator Schwartz discussed HB 1248, which authorizes 10 pilot projects to test alternative transfer methods (ATMs) to buy and dry. She encouraged the roundtable to recommend a Colorado River basin project to enroll in this program. Ken Baker commented that this is a form of basin of origin protection, since it provides that water transferred from one basin to another (for instance, from the Arkansas to the South Platte) cannot be transferred permanently.

10. **Colorado Water Plan, Becky Mitchell, CWCB.**

- a. The CWCB is charged with developing the Colorado Water Plan, which will incorporate the following features:
 - i. It will affirm the prior appropriation system.
 - ii. Every water conversation should start with conservation.
 - iii. It reflects Colorado's recreational and scenic values.
 - iv. The current rate of agricultural buy and dry is unacceptable.
 - v. The plan will recognize the ever-present risk of drought.
 - vi. The plan will address the water supply gap.
 - vii. Water Reserve Account Grants will be directed toward projects and studies that inform the Colorado Water Plan.
 - viii. The CWCB will work with other state and federal agencies in developing the Colorado Water Plan.
 - ix. Water quality and quantity will be addressed together.
 - x. Colorado's entitlement under the Colorado River Compact will be protected.
- b. The Colorado Water Plan will incorporate the following information:
 - i. Colorado River Water Availability Study
 - ii. SWSI Gap projections (based on average, not drought year, hydrology).
 - iii. Underground storage projections.
 - iv. Climate Change projections
 - v. IBCC and Basin Implementation Plans
 - vi. CDSS (Colorado Decision Support System) data
- c. Colorado Water Plan Timeline
 - i. May 2013 – Governor's order released
 - ii. July 2013 – Draft Colorado Water Plan Outline is due
 - iii. November 2013 – Evaluate the direction and need for legislative changes.
 - iv. July 2014 – Basin Implementation Plans are due
 - v. December 2014 – CWCB deadline for draft plan to Governor's desk.
 - vi. December 2015 – Final plan adopted
 - vii. Spring 2016 – Pass legislation needed to implement the plan.
- d. CBRT Basin implementation plan
 - i. CWCB is urging the Roundtables to speed this up, and will assist in this process when possible.
 - ii. Roundtables are encouraged to hire consultants to help produce the reports.
 - iii. Identified Projects and Processes (IPPs) need to be evaluated in particular.
- e. Colorado, Arizona, Washington and Oregon are the only Western states lacking a state water plan. Texas, New Mexico, Oklahoma, Kansas, Utah, Wyoming, Montana, Idaho, Nevada, and California have all developed plans. Plans vary, as

California's is a top-down policy document, while Texas has a bottom-up implementation document.

- f. States' rights under interstate compacts were recently affirmed by the US Supreme Court in *Tarrant Regional Water District v. Herrman*, 569 U. S. ____ (2013). Texas wanted to use some of Oklahoma's share of the Red River, which is shared equally between Oklahoma, Texas, Arkansas, and Louisiana. Texas pointed out that Oklahoma, of which all but its panhandle lie east of the 100th Meridian, uses 2 maf and permits 34 maf to flow through its state to the Gulf of Mexico. The Tarrant Regional Water District serves 1.7 million people in the Fort Worth area, and it predicts it will have a water supply gap in 2060. The Supreme Court was not persuaded, and it held that Texas could not interfere with Oklahoma's water rights; see <http://stateimpact.npr.org/oklahoma/tag/tarrant-vs-herrmann/>. Commentators say the decision was narrowly tailored to the Red River Compact, and has little bearing on other interstate compacts
- g. **Low flow matrix.** Ken Ransford recommended completing the following matrix to determine projected minimum flows in rivers in the Colorado River Basin depending on hydrology and conservation:

Future M&I Water Use		CFS at annual low point		
	GPCD	Low	Medium	High
High	202 gpcd			
Medium	150 gpcd			
Low	120 gpcd			

11. Stan Cazier's Comments & IBCC Perspective on the Colorado Water Plan

- a. Ag Dryup, New Supply, and Conservation were addressed in documents prepared by CDM and titled *Draft No/Low Regrets Action Plan Prepared for June 5, 2013 IBCC Meeting* and *Draft No/Low Regrets Action Plan Conservation Prepared for June 5, 2013 IBCC Meeting*. These were emailed by Jim Pokrandt on June 20, 2013, at 1:20 PM. Stan recommended that CBRT members send their comments on these drafts to Jim Pokrandt prior to the next CBRT meeting on July 29, 2013.
- b. The Denver Metro Roundtable developed a good white paper expressing their positions, and the Colorado Basin Roundtable should do the same.
- c. The Colorado Basin's Vision Statement is good.
- d. **County 1041 powers should be preserved.** The No/Low Regrets Draft Plans do not adequately address and protect county powers.

- e. **Compensatory storage for the West Slope should be included in any New Supply plan.** The Colorado Big-Thompson Project provided compensatory storage to the West Slope in Green Mountain Reservoir. Wolford Mountain Reservoir was an exceedingly complex project due to the dollars and players involved, but it too provided compensatory storage to the West Slope. Any legislation passed to protect future projects should provide mitigation and compensatory storage to the West Slope. Referendum A (popularly known as the Big Straw) failed in 2003 in part because it did not say how the West Slope would be protected.
- f. **Rachel Richard commented that non-consumptive needs are not adequately addressed in the New Supply, Ag Dryup, and Conservation drafts.** The reports do not discuss how Instream Flow needs will be met in drought years, for instance.
- g. **Conservation targets should be Medium to High, not Low to Medium.**

The table below indicates what will be necessary to achieve high conservation targets by 2050. Note that the High Conservation table on the right indicates a 34% reduction in water use over 37 years, very close to the 1% per year reduction encouraged in *Filling the Gap*, the 2011 report compiled by Western Resource Advocates, Trout Unlimited, and the Colorado Environmental Coalition. All figures are gpcd (gallons per person per day).

	Current Municipal and Industrial Water Use, gpcd, SWSI 2010, Appendix L	2050 Water Use, Medium Conser- vation	2050 Water Use, High Conser- vation
Indoor residential use	50.7	35	30
Indoor non-residential use	41.3	31	29
Outdoor landscaping, both residential and non-residential	66.8	51	46
Total indoor and outdoor water use, residential and non-residential	158.8	117	105
Total reduction below 2010 use		26%	34%

Source for 2050 water use: Conservation No/Low Regrets Draft June 5, 2013, Appendix A, Summary of SWSI Findings on Water Conservation, page 13.

- h. **The Colorado Supply Plan needs a clear statement that mitigation will be a part of any New Supply legislation.**
 - i. There is no political will to discuss slowing Colorado's population growth or restricting a party's ability to sell its water.
12. **Upper Colorado River Compact – Risk Analysis of New Supply development – Eric Kuhn**
- a. **How much additional water is available for development is highly uncertain.** Reasonable answers have presented a range of -400,000 af to 1,400,000 af (where -400,000 af suggests the Colorado River is now over-appropriated by 400,000 af). SWSI I suggested that zero to 400,000 af was available, while CRWAS I suggested 0 to 1,000,000 af is available. Eric states that we simply do not know.
 - b. **Upper Colorado Basin delivery requirements are uncertain due to the Mexico Treaty obligation** to deliver 750,000 af every 10 years. Is this due in every event (thereby raising the Upper Basin's delivery requirement to 8,250,000 af every 10 years) or is it only due if there's adequate water to support this obligation (i.e., the precipitation is high enough and resembles hydrology in the 1920s so that there is surplus water available to support this obligation)? The Upper Basin States claim the 1922 Colorado River Compact is unclear on this point.
 - i. **Colorado's share of the Mexico Treaty Obligation is 388,125 af** if the Upper Basin States are indeed obligated to provide 8,250,000 af every 10 years.
 - c. **Climate change is uncertain.** The Bureau of Reclamation's Colorado River Water Availability Study Report released in 2012 indicates that demand now outstrips supply in the entire Colorado River Basin. How much additional water is available depends upon which water projections are considered: Climate Change, 19th Century, or Paleo-Reconditioned. These refer to various Monte Carlo-like simulations of future precipitation patterns. The Bureau of Reclamation's 2012 study was based on 112 GCM (Global Climate Model) scenarios, half of which projected increased precipitation in the future, and half of which project lower precipitation in the future.
 - i. **Paleo studies indicate the 1900s were wetter than average.** Most studies suggest a drier future, and the 2012 BuRec Colorado River Water Availability Study suggests that flows past Lee's Ferry will decline 12.5% below its 480-year average of 14.6 maf to 12.8 maf. If so, Colorado is now using nearly 275,000 more than its Compact share.
 - ii. **Climate models predict the Upper Colorado Basin may be wetter** while the Lower Colorado Basin will be drier. Upper Colorado is a grey zone.

- iii. **If it gets hotter**, consumption could increase 20% due to longer growing seasons and increased evapotranspiration, meaning that Colorado's current consumptive use of 2.6 maf out of the Colorado River could increase to 3.1 maf.
- d. **What this adds up to is a 15% risk of a Lee's Ferry deficit.** This assumes the Upper Division is currently using 4.6 maf, it is obligated to deliver 8.25 maf every 10 years, and hotter temperatures increase Upper Basin State consumption by 20%.
- e. **1948 Upper Colorado Basin Compact creates a 10-year Penalty Box.** If there is a Compact Call and an Upper Basin state has used more than its share, Article IV.b states that the over-appropriating state must repay the entire over-use over the previous 10 years before it can continue to use its allotted share.
- f. **Colorado is now in the penalty box.** Colorado's share is 51.75% of the total water available to the 4 Upper Division states, and it is currently using about 57% of the Upper Division's share of water. Thus, if a Compact Call is made, Colorado would have to answer the Lower Basin call until it is satisfied or Colorado pays back its 10-year overuse. New Mexico has also used more than its share, while Utah and Wyoming have under-utilized their shares.
- g. **The US Supreme Court will have to answer these questions** if the states cannot resolve them. While narrow, the Court's recent decision in *Tarrant Regional Water District v. Herrman* does not appear particularly helpful in this regard. It held:
 - i. Interstate water compacts will be respected.
 - ii. Interstate water compacts do not pre-empt state water law unless the compact specifically so provides. Both the Colorado River Compact and the Upper Basin Compact effectively state that "nothing in the Compact shall interfere with or impair the right or power of any Signatory State to regulate within its boundaries the appropriation, use, and control of water."
 - iii. Interstate water compacts do not violate the Commerce Clause of the US Constitution, since Congress has ratified the interstate compacts. Texas argued that since Oklahoma was not using its 25% share of the Red River, Oklahoma was violating the Commerce Clause by prohibiting Texas from using Oklahoma's share for the sprawling Fort Worth market. Justice Sotomayor rejected this argument summarily.
- h. Caroline Bradford suggested that the CBRT should get this risk addressed and quantified in CRWAS Phase 2, and that the CBRT should firmly state that the Shoshone call and 10825 water are untouchable in future state water planning.

13. **Energy Water Study mistakenly underestimated water needed for natural gas development.** Dan Birch, Deputy General Manager of the Colorado River District, reported that the Energy Water Study estimated that 2 af was needed per well to develop natural gas, while the correct number is 20-40 af. Orion Magazine suggested in 2006 that gas companies planned to drill 1,250 wells per year over the ensuing 8 years in Garfield County alone; this amounts to an annual increase from 2,500 af to 50,000 af in Garfield County; see <http://www.orionmagazine.org/index.php/articles/article/186/>. Dan said that oil shale development has tailed off recently and that the additional water needed for natural gas development could be offset by the reduced water needed to develop oil shale. He recommended that the CBRT approve a revision of the Energy Water study, and he predicted the cost would be \$50,000 -100,000.

CBRT Basin Reserve Account Grant Requests

14. **Mountain Meadows Irrigation Company** in Missouri Heights requested \$50,000 from the Basin Reserve Account to line 3,472 feet of an irrigation ditch used to transport 2,843 af out of Spring Park Reservoir, in order to reduce ditch seepage. The ditch company estimates 15-20% of water is lost in seepage. At the May meeting, CBRT members expressed concern that this water was primarily used for high end subdivision residences. Mike Spade reported that approximately 35% of the 2,843 af was used by residences, and 65% is used in agricultural operations including the Strang and Milagro grass-feed beef ranches, by Spradley Farms to grow organic produce, and by Windwalkers for its therapeutic horse riding operation. The project will be funded as follows:

NRCS	\$257,000	
Mountain Meadows Irrigation Company ditch owners	100,000	
CWCB Loan	143,000	
Subtotal		500,000
CBRT Basin Reserve Account Grant		50,000
Total cost		550,000

15. **Grand County Reservoir Enlargement and Clay Lining.** Bruce Hutchins requested \$41,640 from the Basin Reserve Account and \$7,670 from the Statewide Water Reserve Account in order to deepen and line a reservoir in Grand County with an impermeable clay layer. The water and sanitation district has spent \$1 million on the project to date, and projects an additional cost of \$833,000. The reservoir was initially designed for use in a sewage treatment facility but this is infeasible due to tighter ammonia public health restrictions. It will now be used as an augmentation reservoir. Although it is junior to the CWCB's instream flow right on the Fraser River, it is senior to other downstream water rights. The pond is below Denver Water's diversions into the Moffatt Tunnel collection system, and it can be used to deliver water into the Fraser River pursuant to the Colorado River Cooperative Agreement.
16. **Upper Colorado River request by ranchers for \$50,000 to study river degradation.** The Northern Water Conservancy District built 5 check structure wing dams in the Colorado River in the 10 miles below Troublesome Creek in 2002-03. These were constructed in the shape of an upstream U, and would have likely operated better if

configured in the shape of a downstream U. The river has experienced channel degradation and bank erosion to the point where the river channel is down-cutting in some locations and causing irrigation pipes to now sit above the river where they can no longer divert water from the river. John Secora of URS Engineering presented the application, and he estimates the study will cost \$104,000 total, with \$54,000 being contributed by ranches that could benefit from the study. A potential solution is to down-size and deepen the channel.

- a. **The river is on the verge of collapse** as measured by the loss of invertebrate organisms since 1980. Stone flies are disappearing, and the river temperature is too hot in summer months.
- b. **Kim Albertson and Chuck Ogilby supported the project.** Chuck recommended that Northern be responsible to pay for this study. John Secora replied that the goal is to produce an engineering study that determines what the solution is, and what the cause is and who's responsible.
- c. **The Northern Water Conservancy District is not solely responsible.** They are only one user on the river, and this problem really results from the disappearance of natural flood events after reservoirs on the Colorado and Blue Rivers were constructed. Rachel Richards asked whether the river can be restored if the 18,000 af Moffatt and 30,000 af Windy Gap diversions are approved. John Secora replied that the study is addressing this.
- d. **Robert Young, owner of the Colorado River Cattle Ranch, will not participate in this study.**