

IBCC Colorado River Basin

1. January 25, 2016 CBRT Minutes

1. January 25, 2016 CBRT Minutes – **Implementing Colorado’s Water Plan; WSRA Grant Request for \$8,000 to fund a joint West slope roundtable study to respond to a potential Compact Call; formation of the Next Steps Committee; discussion of how to implement Colorado BIP Theme 1, Healthy Rivers; description of non-consumptive projects in the basin.**
2. **Next Meeting: January 25, 2016, Glenwood Springs Comm Ctr, 12:00 – 4:00.**
Potential meeting with legislators.
3. Upcoming Meetings
 - a. **February 22, 2016, 12:00: Next Steps committee.** 2-hour conference call
 - b. **Next roundtable meeting: March 28. Chris Treese** will provide a **legislative update**, and we will focus on Theme 2 of the basin implementation plan, **sustaining agriculture.**
4. Reporter: These minutes were prepared by Ken Ransford, Esq., CPA, 970-927-1200, kenransford@comcast.net.
5. **CBRT Members Present:** Kim Albertson, Art Bowles, Caroline Bradford, Stan Cazier, Kathy Chandler-Henry, Carlyle Currier, Mark Fuller, Karl Hanlon, Mark Hermundstad, Bruce Hutchins, Diane Johnson, Merritt Linke, April Long City of Aspen (now taking Mike McDill’s place), Louis Meyer, Chuck Ogilby, Jim Pokrandt, Ken Ransford, Dave Reinertson Clifton Water, Rachel Richards, Steve Ryken, Karn Stiegelmeier, Lurline Underbrink Curran, Mike Wageck, Lane Wyatt, Bob Zanella
6. **Guests:** Steve Aquafresca, Steve Anders USGS, Dan Ben-Horin Middle Colorado Watershed Council, Dennis Davidson Mount Sopris Conservation District, Angie Fowler SGM, David Graf, Hannah Holm-CMU, Eric Kuhn, Brendon Langerhoizen SGM, Victor Lee BuRec, Ken Leib USGS, Heather Lewin Roaring Fork Conservancy, Holly Loff Middle Colorado Watershed Council, Dave Merritt CRD, Brent Newman CWCB, Laurie Rink Middle Colorado Watershed Council, Richard Vangytenbeek Trout Unlimited.
7. **River Forecast. Flows at the Cameo gage are below average** for the upper Colorado River. The forecast is for a wet April. Across the entire Western US the snowpack is 104% of average. New Mexico is above average and Nevada is significantly above average, as expected in an El Nino year. We are on the downward trend of El Nino. There should be a big low-pressure trough over Colorado next week, the first week in February 2016, which should bring additional precipitation. Both turbines are operating at Shoshone.

8. **Jim Pokrandt was the only person wearing Bronco's orange** at the roundtable meeting, a sorry showing the day after Peyton Manning defeated Tom Brady in the 2016 AFC Championship game, their 17th meeting.
9. **CBRT membership changes.** Tom Clark has resigned. April Long is replacing Mike McDill as Aspen's representative. Kathy Chandler-Henry will represent Eagle County; Caroline Bradford will be the alternate Eagle County member.
10. **Next Steps committee.** This group has superseded the Executive Committee, and meetings are open to all comers. It met January 13, 2016. Future meetings are in the off months that the Colorado basin roundtable does not meet, at 12:00 on the fourth Monday in February, April, June, August, October, and December.
11. **2016 Officer Slate.** Stan Cazier reported that the Next Steps committee recommends the existing slate of officers should be re-elected. **Jim Pokrandt is currently the chair and Karn Stiegelmeier is the vice-chair.** Stan made this motion, Caroline Bradford seconded it, and it passed unanimously.
12. **Jacob Bornstein is no longer with the CWCB.** Stan Cazier recommended that we send a letter to Jacob saluting his good work on Colorado's Water Plan. He's going to the Spark Policy Institute, a national organization that facilitates progress with nonprofit organizations on contentious issues.
13. **Colorado's Water Plan update.** Brent Newman, CWCB. Brent opened with a video prepared by the CWCB and narrated by John Stulp. Water remains the sustaining element around which we organize our lives and society, and is at the heart of what makes Colorado the envy of the world. Climate change is forecasting longer and deeper droughts. Natural water supplies are not aligned with human settlement patterns, since 80% of the water is on the West slope, but 80% of the people are on the East slope. A shortfall is projected for as many as 1 million residents by 2050. Colorado's Water Plan grows out of the largest civic engagement ever attempted in the state. Colorado has moved away from adversarial positions to cooperative projects, and now points to consensus as exemplified by the roundtables. Other states and Mexico watch Colorado's headwaters closely. Colorado's Water Plan is a living document that will benefit generations to come. Over 1,000 meetings were held and more than 30,000 public comments were received.
 - a. **Measurable Objectives.** The goals of Colorado's Water Plan are a productive economy, efficient infrastructure, and a vibrant environmental and recreation economy. The CWCB winnowed 80 critical actions down to 36. **Measurable objectives are in Chapter 10, and are based on work by the roundtables and IBCC.** Two years ago, Russ George said land use planning was not part of the plan, but changed in the face of opposition. There are eight measurable objectives:

- i. Close the Supply-Demand Gap so there is **no gap in 2030 or 2050**.
- ii. Achieve **400,000 af of savings from M&I conservation** by 2050.
- iii. **Reduce water consumption through land use planning**, while respecting local control.
- iv. Maintain the viability of agriculture, **making ATMs as competitive as buy and dry**. Improve technical resources to track water use in the agricultural sector.
- v. Dams: Achieve **400,000 af of new storage** by 2050, based on an 80% success rate for IPPs.
- vi. Cover **80% of prioritized list of rivers with stream management plans** and watershed plans by 2050.
- vii. **Raise \$100 million annually beginning in 2020**, resulting in \$3 billion by 2050.
 - 1) Steve Aquafresca inquired about how this will occur. Brent Newman said a container fee is being considered. See chapter 9.2 for a list of ways to raise funding for new water projects; this is a grab bag of all potential funding sources, which Brent said will be winnowed down in the next year. Steve recommends that **if money is raised on a regional basis, the regions will want the money spent there**. He is concerned that this will regionalize and politicize the process.
 - 2) Rachel Richards attended a recent Club 20 meeting, and she thinks it is likely we will see a **.75% sales tax increase on the November 2016 ballot to pay for transportation** improvements. Cities and counties have traditionally resisted adding to the 3% state sales tax rate, but Vail Resorts and other industries support this. The state will need a constitutional amendment to raise property taxes statewide.
- viii. New water education assessment. Communicate with the public to significantly improve public awareness and engagement of water issues statewide by 2020.
- b. **Next Steps – Implementing Colorado’s Water Plan.** WSRA grants will play a large role, but WSRA grants are down because they are based on severance tax revenues, which are lower due to reduced oil prices.

- i. The Colorado Basin roundtable has been good about identifying how grant requests meet basin wide themes discussed in the BIP.
 - ii. **SWSI 2016 kicks off in February 2016.** Tom Browning of the CWCB will be running this program, and Brent said details will be forthcoming in the next several months.
 - iii. A lot of this year's Colorado Water Congress convention is devoted to pushing the objectives discussed in Colorado's Water Plan forward.
- 14. **Future WSRA funding was discussed.** This year, we are expecting to receive \$50-100,000 of basin **WSRA funding, significantly lower than prior years.** The Colorado Basin Roundtable has received \$5.2 million in statewide WSRA funding in the past decade. There is \$1.4 million in the statewide account, which all nine roundtables compete for, and \$400,000 in the Colorado basin roundtable fund. Severance tax revenues have always fluctuated a lot; it funds 50% to local governments, and 50% to the Colorado Department of Natural Resources.
 - a. Caroline asked how many grants we have before the statewide fund. There is one request for ILVK irrigation improvements on the upper Colorado River, and the education campaign for water education.
 - b. The state took severance tax funds normally paid to counties in 2015. To double I-25 during Governor Owens administration, the state raided future funds and that is haunting us now.
- 15. **\$8,000 Grant request for West slope plan to address a Compact Call, Eric Kuhn.** The request is for \$52,000, \$8,000 from each of the Colorado and the other three West slope Roundtables, plus \$10,000 from each of the Colorado and Southwest River Districts in order to develop a model and plan to address a potential Compact call the West slope response.
 - a. The Southwest and Yampa Roundtables, and the Colorado and Southwest River Districts have all assented. At the Dec. 18, 2014, 4-basin West slope Roundtable meeting in Grand Junction, it was recommended that we develop a West slope plan to respond to a Compact Call. This was delayed because CWCB Director **James Eklund wanted Colorado's Water Plan to be released before the West slope pursued this.**
 - b. Cad West, a research group at the University of Colorado, has invested nearly \$30 million to develop the **Colorado River Simulation System (CRSS).** The Colorado Decision Support System (CDSS) differs because it stops at the Colorado border, and because it has information regarding water rights. The CRSS does not contain water rights information.

- c. The CRSS allows us to **model Lake Powell operations**. Avoiding a Compact Call is the first goal, in order to keep us out of Compact administration. The \$52,000 will be spent to enable us to have an intelligent discussion about **Point 4 in the 7-Point Conceptual Framework**, which deals with preventing a curtailment of water rights in the event of a Compact Call. If Lake Powell gets too low, we will run out of options.
- d. Lewis Meyer, Stan Cazier, Jim Pokrandt, and Eric Kuhn joined a call earlier today to discuss this. Jim Pokrandt encouraged other roundtable members to join. A technical representative explained how the CRSS model works. It is a mass balance model, not a water rights model. There are no water rights in the model, neither absolute nor conditional water rights. The only water rights that the model addresses will be the Shoshone Call and the Cameo Call. It will **show increased demands, and what levels of depletions will cause us to take actions to avoid a Compact curtailment**. Colorado's CDSS model does not address Lake Powell, and what is happening in Wyoming, Utah, or New Mexico. How can we coordinate reservoir releases to minimize the risk of a Compact Call, and how risk-averse are we? For instance, **are we willing to allow Lake Powell to drop to 6 million acre feet or 5 million acre-feet on March 31? Irrigated agriculture in the Grand Valley and Gunnison basin are likely to absorb any Compact Call**, so they bear the risk.
- e. We will be having this discussion for many years to come. With the model, you can look at a lot of scenarios in the future. The first step is identifying a baseline.
- f. **Lake Powell** is full at elevation 3,700 feet above sea level, with 24 maf of storage; it is **at 3,600 today, 10 maf of storage. When it reaches 3,525, we have 6 maf, only 2 maf above inactive storage**. It takes a year of lead time for decreasing levels to be felt. **We should not go below 3,525**. If we go below minimum power at 3,490, you cannot deliver water, and a Compact hold takes over. The goal is to begin the discussion about what rights we cut back to prevent the level from dipping below 3,525.
- g. The Gunnison Basin has the most irrigation and therefore the most consumptive use on the West slope. **The Yampa basin** is concerned that they have additional water for development in the future. They **want special dispensation** so that they are not curtailed by strict priority system.
- h. This is emergency planning. **A Compact curtailment is an emergency**. The lead time is important; this is like getting run over by a train going 1 mile an hour. The train will not stop so you have to get out of the way. The proposed funding of \$52,000 will not tell us how to address a Compact call, but it starts the discussion.

- i. Several different model runs are possible. If people do not like climate change, we can use the paleo record of reconstructed hydrologic flows. **We have been in a wet cycle since 2013. If we had another 1953-1964 drought, we would drain Lake Powell.** It was more severe than what we have been through since 2000.
- j. Rachel Richards recommends that this be a platform that we can use again in the future, and Eric Kuhn assured the roundtable that **it will be available for future scenario planning.** Rachel is concerned that it be able **to answer what would happen if a provider wanted to develop 20% of their conditional water rights.** Rachel also encouraged the report to be written in prose that the public and media can understand.
- k. Rachel also asked whether the model will cover the Lower Basin's excess withdrawals, which are known as a "structural deficit." Eric said the model can be used by anyone who possesses a license. Eric doubled the consultant's cost estimate so we can run more scenarios. **It will assume the interim Guidelines are in place** (Colorado agreed to these in Governor Owens' administration in 2007) and that the Lower Basin will take only their appropriate share. **This will be open and transparent in a world that is not used to being open and transparent.** If there is a lawsuit between basins, Eric said a federal judge will be running the river for the next 30 years.
- l. **Steve Aquafresca asked what type of progress has been made in promoting contingency planning. Eric said the state has not gotten to this point.** The first step in contingency planning is **better operation of the Aspinall Unit, Flaming Gorge, and Navajo Reservoirs.** Steve asked if water banking, or "pay to fallow" is being considered. Eric said it will. **"Willingness to accept risk means how low are we willing to allow Lake Powell to drop,"** according to Eric. **Colorado is using 58% when its Upper Basin share is 51.75%,** so Colorado will have to meet a Compact Call alone since it is in the 10-Year Penalty Box.
- m. Stan Cazier said the point is to get the four West slope roundtables to discuss the same information so they can have a discussion.
- n. Louis Meyer said we need to consider what scenarios we want to run, such as what happens if a new trans mountain diversion occurs. A reduction of 200,000 acre feet represents fallowing about 50,000 acres, assuming Colorado is responsible for only 51.75% of a Compact Call. "50,000 acres is a big number," Louis said.
- o. **The Front Range wants to participate in this process,** but Eric does not recommend asking them for money. The Front Range has 7 technical representatives that attend West slope roundtable meetings.

- p. Dave Merritt said CRSS does not model the reservoirs on the Main Stem of the Colorado River in Colorado, or on the Yampa. It operates on a monthly time step, but you have to manipulate data files and fake them into doing what you want it to do. The Blue River is accounted for in CDSS, but not in CRSS.
 - q. Lane Wyatt asked what the status of the state's re-write of CDSS is. **The CRSS is continually updated, as opposed to the CDSS system which is not.** Lake Powell is hanging in there, not going up or down, **the forecast for this year shows Lake Powell bottoming out in March and rising 20-30' next year due to El Nino.** The water bank process is ongoing, and it will take years to implement. The big question is what's politically feasible; we need to address that first, and then see what impact that has on the model and then ask what is technically feasible.
 - r. **The Next Steps committee recommends approving the \$8,000 grant request, Rachel Richards seconded it, and it passed unanimously.**
16. **Education action plan 2015-2017, Hannah Holm.** A budget was proposed, \$500 to prepare a short handout explaining the Colorado roundtable Basin Implementation Plan, and \$6,000 to support watershed groups and other stakeholders to promote Colorado's Water Plan, limited to \$1,000 per applicant. Longer term, Hannah recommends a long-term education plan, and a committee that meets in the off months when the Colorado roundtable does not meet. Karn Stieglemeier recommends that this take place immediately before or after Next Steps meetings. **Rachel Richards recommended that the grant request be approved, Karn Stieglemeier seconded, and it passed unanimously.** It will be forwarded to the CWCB.
- a. Hannah is **looking for a PEPO (Public Education Participation and Outreach) representative from the Colorado basin roundtable.** Caroline Bradford said that HB 2005-1177 called for this, but it has always been informal. There is typically one person at each roundtable that promotes education, and they then meet quarterly, typically by conference call. Please contact Hannah if interested.
17. **Next Steps Committee.** This committee will meet in off-months when the roundtable does not meet. **The Roundtable meets the fourth Monday of January, March, May, July, September, and November.** Anyone can be on the Next Steps committee. The goal is to advance the roundtable's work, and promote our 6 themes, without having the whole board attend. **The six themes are:**
- i. Protect and restore healthy streams, rivers, lakes, and riparian areas.
 - ii. Sustain agriculture.
 - iii. Secure safe drinking water.
 - iv. Develop local water conscious land use strategies.
 - v. Assure dependable basin administration.
 - vi. Encourage high level of basin-wide conservation.

- b. The Arkansas basin roundtable has hired a person to advance roundtable objectives, in part by educating the public about these.
 - c. Jim Pokrandt asked if we should hire someone to push our BIP forward; the Next Steps Committee will address this.
18. **Healthy Stream Initiative – Basin theme #1.** Laurie Rink and Hannah Holm. The first of the Colorado basin roundtables six themes is to protect and restore healthy streams, rivers, lakes, and riparian areas. See **pages 44-48 of the Colorado BIP**. Hannah Holm asked roundtable members to share information about any stream improvement projects they know about that are not already in the BIP. Lane Wyatt recommended **not to overlook the first step, canvassing existing information and determining what additional data is needed**, because it helps make the case for why the project is important, and what additional information is needed to support the need for the project.
- a. **We are vulnerable in the following areas:**
 - i. Loss of Gold Medal trout fishing status
 - ii. Adverse impacts on fish, particularly in the 15-mile reach of the Colorado River above its confluence with the Gunnison River.
 - iii. Less reliable stream flows for rafting or kayaking.
 - iv. Reductions in irrigated lands and associated delayed return flow benefits.
 - v. Devaluation of real estate that relies on healthy riparian corridors.
 - b. **Four goals**
 - i. Protect and rehabilitate healthy rivers
 - ii. Define water quality needs
 - iii. Preserve high quality recreational rivers and streams
 - iv. Develop a basin-wide funding system
 - c. Integrated Water Management Planning – This term replaces the former term “stream management plan” because it emphasizes protecting existing local water uses and providing for future consumptive needs in the course of developing plans to maintain healthy streams.
 - i. **We don’t have a good sense of non-consumptive flow needs**; they need to be integrated with consumptive uses
 - d. **Goal 1: Protect and rehabilitate healthy rivers**, streams, lakes and riparian areas. Develop integrated water management plans that identify at-risk rivers and streams along with steps to rehabilitate them. Support efforts that address invasive species.
 - e. **Goal 2: Define water quality needs and at-risk water bodies.**

- i. Address 303(d) listed water quality impairments.
 - ii. Monitor stream flows, temperature, and macro-invertebrates which serve as a good indicator of stream health.
 - iii. Develop model land use ordinance that addresses riparian buffers
 - iv. Support research to assess personal care products and pharmaceuticals that are introduced into waterways.
 - v. Implement initiatives to protect source water quality.
- f. **Goal 3: Preserve high-quality recreational river and stream reaches with appropriate flows.**
 - i. Protect flow needs in 28 reaches with recreation attributes that American Whitewater identified
 - ii. Develop RICD structures
 - iii. Expand water-based recreation on the Colorado River.
- g. **Develop a basin-wide funding system**
 - i. Utilize existing basin/sub-basin collaborative partners like Colorado Mesa University to leverage more funding.
 - ii. Establish a new funding agency to fund environment and recreation projects.
 - iii. Acquire conservation easements to preserve agriculture and its current use of water.
- h. There are **4 tasks**:
 - i. Task 1: **Information gathering.** Review and compile existing information relevant to the development of integrated water management plans.
 - 1) Example: There are no macro-invertebrates in a particular stream stretch.
 - ii. Task 2: **Synthesize the information.** A detailed GIS map will depict what we know about stream reaches, and what is missing. Ken Ransford recommended that a GIS map be created to show all ongoing projects in order to prompt copy-cat projects on other stream reaches at risk.
 - iii. Task 3: **Stakeholder engagement and education.** Achieve consensus on the recommended tools and processes, and seek stakeholder support.
 - iv. Develop a framework for stream management planning. **Create an integrated water management plan on particular river reaches** into a comprehensive tool that can be applied basin-wide.

- i. The **CBRT has approved \$43,404** for this; a \$67,947 grant proposal is before the CWCB, which it will vote on January 26, 2016. Colorado Mesa University will offer \$9,995 in kind time, and other consultants have offered \$29,256 in kind support as well.
19. **Description of ongoing non-consumptive efforts in the Colorado River basin.** Jim Pokrandt said it is important to call these efforts and available funding out to the public.
- a. Lurline Curran Underbrink described several projects in Grand County that will implement Theme 1 including:
 - i. **Windy Gap bypass** to route the Colorado River around Windy Gap Reservoir; \$4.1 million has been raised toward the \$9.6 million needed.
 - ii. \$3 million that Denver Water has committed for upstream and downstream improvements provided that Denver Water receives Moffat FIRMING permits;
 - iii. **ILVK: irrigators on the Colorado River** above its confluence with the Blue River are **improving their pump system and stream health** at the same time.
 - 1) Jim Pokrandt mentioned that this Kremmling project is a good example of how to create the nexus for agriculture, environment, and recreation.
 - iv. **Grand Lake clarity** – 5-year plan to identify alternatives for operating flows to the Front Range to clear up Grand Lake.
 - v. Proposal to **improve 1 mile of the Fraser River** downstream of Fraser.
 - vi. **Learning by doing** group has been meeting.
 - b. According to Holly Loff, **storm-water infrastructure is needed on the Eagle River** in Avon and Edwards. This needs funding, which they will request. Eagle is trying to get a whitewater park on the Eagle River, but not a RICD.
 - c. **Roaring Fork watershed** – Heather Lewin described stream restoration efforts the Roaring Fork Conservancy is working on: **a stream management plan is being developed for the Crystal River to increase flows**; they are working with Garfield County on **Cattle Creek that has a 303(d) listing**; coordinate with Aspen to develop a **watershed plan on the upper Roaring Fork**; **storm-water planning on the Colorado River through Glenwood Springs**; and working with Bureau of Reclamation to **coordinate releases on the Fryingpan River**.

- d. Victor Lee of the Bureau of Reclamation is working with the **HUP historic user pool to ensure flows in the 15-mile reach**; the Shoshone outage protocol; the Upper Colorado Wild and Scenic stakeholders group.
- e. **If Chimney Hollow gets built, Grand County can store 7,000 af in Granby Reservoir** to be released whenever Grand County determines; this is in addition to the 5,412 acre feet already being stored, Grand County's 50% share of 10825 Water to preserve flows in the 15-mile reach. It would likely be released in July-October to keep stream temperatures cooler; this will benefit endangered fish in the 15-mile reach.
- f. The Windy Gap IGA intergovernmental agreement, Windy Gap Permit, and Colorado River Cooperative Agreement each explain these.
- g. Pitkin County – Rachel Richards mentioned a Wild and Scenic River **WSR citizen group on the Crystal River, and a RICD request on Roaring Fork River upstream of Basalt** that may provide additional flow during the shoulder season.
- h. Jim Pearce – A **WSR is in place on the Colorado River from Kremmling to No Name above Glenwood Springs**. It is a good summary of stream restoration efforts on that stretch.
- i. **Pharmaceutical take back program in Summit County** – Karn Stiegelmeier said Summit County has developed a pilot program with Kroger's, which owns King Soopers and City Market, to take back personal care and pharmaceutical products in order to keep chemicals out of the river. At least **200 chemicals come into wastewater treatment plants** including birth control pills, caffeine, and drug that are not being treated. Many are removed in the water treatment process, through mechanisms the facility operators do not understand. There are only a couple of places in the country where you can monitor at a level in parts per trillion. If a sample shows contamination, there's always the question whether the sample is representative or whether it is a problem. It may not be, but releasing information about it may alarm the public.
- j. Lane Wyatt: **Silverthorne has a RICD water right**, but town officials are not certain that people want a water park. A group like the Colorado basin roundtable could encourage them to proceed. They are looking for people to champion it, and say they'll use it. There's a need for recreation on the Blue River below Dillon Reservoir. There should be a sense of what the benefits are, both for recreation and stream health, beyond just getting another project built. **Questions are often raised whether there is a need for the project, and collecting existing research data is a good way to demonstrate this.**

- k. David Graf – **CPW has often been adversarial to RICDs for fear of impairment to fisheries.** On the Yampa River through Steamboat Springs, tuber RICD releases may be harming the fishery.
 - l. **On the Fraser River, eight water providers** that receive their water supplies from the river **are developing a source water protection plan** with best management practices to keep water in the stream and to make it easily treatable for drinking water.
 - m. **The West Slope will receive 12.5% of money paid by Front Range providers who receive water in the Denver WISE project** in the Prairie Waters project; these funds will be available from the Colorado River District. Summit and Grand County also received funds in the Colorado River Cooperative Agreement.
 - n. There is also WSRA funding available.
20. **April Long said the City of Aspen is soliciting a request for proposals to develop a stream management plan to** address the low flows in the river during droughts. Aspen will participate with Pitkin County to address the reach above Aspen to the confluence with Maroon Creek, and to identify structural changes to the river that can improve the river. Aspen's plan is to coalesce a stakeholder group to define what a healthy river is and to identify operational and structural techniques to improve river health.