

IBCC Colorado River Basin

1. April 27, 2015 CBRT Minutes

1. **April 27, 2015 CBRT Minutes – WSRA Grant Requests for \$40,000 Kendig Reservoir Study and \$25,000 Remote Controlled Cloud Seeder on Grand Mesa; 7-Point Conceptual Framework discussion**
2. **Next Meeting: May 18, 2015, Glenwood Springs Comm Ctr, 12:00 – 4:00.**
Hydrologic modeling is on the agenda.
3. **Upcoming Meetings**
 - a. IBCC April 30, Denver.
 - b. CBRT meeting June 22, 2015 – Presentation of CBRT Response to 7 Point Conceptual Framework
4. **Reporter: These minutes were prepared by Ken Ransford, Esq., CPA, 970-927-1200, kenransford@comcast.net.**
5. **CBRT Members Present:** Kim Albertson, Linda Bledsoe, Art Bowles, Caroline Bradford, Paul Bruchez, Lurline Underbrink Curran, Carlyle Currier, David Graf, Karl Hanlon, Bruce Hutchins, Wes Mauz, Mike McDill, Louis Meyer, Ken Neubecker, Chuck Ogilby, Ken Ransford, Rachel Richards, Steve Ryken, Karn Stiegelmeier, Mike Wageck, Lane Wyatt, Bob Zanella
6. **Guests:** Steve Aquafresca, Kathy Chandler-Henry, Don Chaplin-Director/DARCA, Steve Child, Martha Cochran, Aspen Valley Land Trust, Slade Connell, City of Grand Junction, Morgan Hill-Garfield County Environmental Health, Angie Fowler-SGM, Brent Gardner Smith, Richard Hart, Hannah Holm-CMU, Eric Kuhn, Brendon Langerhoizen-SGM, Greg Lanning, City of Grand Junction, Victor Lee, Heather Lewin, Roaring Fork Conservancy, Dave Merritt, Colorado River District, Peter Mueller-TNC, Brent Newman, CWCB, Josh Rice, Mark Ritterbush, City of Grand Junction, Mardi Shepard, ILVC, Chris Treese, Colorado River District, Richard Vangytenbeek-Trout Unlimited, Dennis Webb, Grand Junction Sentinel
7. Lake Powell inflow – the spring 2015 runoff into Lake Powell is projected to be 3.4 maf, only 47% of normal. We are entering year 16 of the current drought.
8. **WSRA Grant Request for a Feasibility Analysis of Kendig Reservoir.** John Currier, Colorado River District Chief Engineer. Joint applicant with West Divide Conservancy for WSRA grant regarding proposed Kendig Reservoir. CBRT member Bob Zanella is on the West Divide board.
 - a. Proposed Kendig Reservoir is 15 miles south of Silt on West Divide Creek. It would be filled with 2 water rights for 18,000 acre-feet, including a conditional

water right for 6,000 acre-feet. This would be multi-purpose, providing water for irrigation, domestic, oil and gas production, and non-consumptive – hydropower potential. Grant request is for \$40,000 from CBRT, and the West Divide Water Conservancy District and the Colorado River District would each contribute \$10,000, for \$60,000 total, to determine what is the potential water supply, and compare that with reservoir feasibility. There is a very limited water supply here, and very little in low water years like 1977 and 2002. It's very water-short late in the year; the West Divide Creek dries up in the irrigation season. Environmental benefits could be irrigation return flow benefits, and bypass flows. Estimating return flows is complex and a lengthy part of the work. The total project could cost \$40-50 million. It's hard to make this feasible if it's main purpose is to benefit agriculture. Determining the potential supply is a critical piece of this grant request. Are there other potential sites? The environmental benefits would be maintaining minimum stream flows.

- b. The Colorado River District abandoned water rights on the Crystal River in 2014.
 - c. The consultants are Wilson Water Group, West Divide's engineering firm, and RJH Consultants who specialize in building dams. They hope to complete the study by the end of 2015.
 - d. Rachel – Will the majority of this be for O&G development; if so, what will the return flows be? John said it's not clear how much water is here. Energy companies do not need a lot of water for fracking
 - e. The proposed reservoir is located on private property. Don Chaplin asked if local landowners objected to a reservoir here; John Currier said he did not know. The West Divide Water Conservancy District does not know of any formal opposition to the project from local landowners. The property adjoining the property on the West side of the reservoir has been subdivided into 35-acre lots. Bob Zanella commented that the main use of this water will be for agricultural use, as well as domestic water supply for 35-acre lots.
9. **WSRA grant request for a remote controlled cloud seeder in Grand Mesa.** Mark Ritterbush markri@gjcity.org, and Slade Connell work for the City of Grand Junction Water Department. The Water Enhancement Authority (WEA) is a coalition of 17 organizations including Southern Nevada Water Authority and participants from Arizona, and California; membership is voluntary, and member contributions fund the WEA.
- a. Cloud seeders work by causing super-cooled liquid water to generate snowflakes. Water vapor that is as cool as 7°F forms snow when water droplets come into contact with silver iodide and build snowflakes.
 - b. In 2010, they started cloud seeding. They have added 2-3 more cloud seeders each year since then. There are 14 manual seeders and 3 remote controlled

seeders, or 17 total. The elevation for the proposed remote controlled seeder is 9,000 feet, higher than the existing seeders at 7-8,500 feet. They are located near Colbran. Manual seeders are cheaper, and located by people's houses. One is located on Carlyle Currier's ranch. He said the meteorologist controls when Carlyle should turn on or off the seeders. The higher the seeder's elevation, the more effective it is.

- c. Does this work? A 2014 University of Wyoming study showed a 5-15% increase in precipitation. A study by Idaho Power shows that precipitation increased 14.6% since cloud seeding operations began in 2003. The Grand Junction WEA showed 8% increase in precipitation.
- d. Remote seeders burn about 3x as much propane as manual seeders.
- e. Idaho Power's budget is \$1m a year; WEA's budget is \$40,000/year.
- f. Grant request is for \$25,000 from CBRT to install a remote-controlled cloud seeder on the north side of Grand Mesa; WEA plans to ask the Gunnison Basin for a seeder on the south side of Grand Mesa. Remote seeders cost \$35,000. To operate remotely, a software program is needed for \$15,000 more, for \$50,000 total. The total project cost is \$63,000. The software will allow them to expand operations with more remote seeders.
- g. www.ral.ucar.edu/projects/wyoming is website address for Wyoming study. Ken Ransford commented that the Univ. of Wyoming study only showed snowpack increased 1.5% to 5%, and runoff only increased .4% to 3.7%. Eric Kuhn said that the Univ. of Wyoming results were not statistically significant, meaning that researchers could not predict with 95% confidence that the increased snowpack was due to cloud seeding efforts. The University of Wyoming study was done in the Medicine Bow Mountains just north of the Colorado border, and used 2 operations that were randomly programmed to fire up as storms passed overhead. So, in any storm, only one of the cloud seeders would operate. The University of Wyoming study concluded that it would be unlikely that statistically significant results would ever be obtained.
- h. Steve Aquafresca encouraged Grand Junction to continue this operation, commenting that it is a technology with a great deal of potential. The amount of moisture that passes over the continent that does not precipitate out is huge, so this will not appreciably affect climate or precipitation. It will not affect snow down-wind. Steve says the cloud seeding program in Wyoming is specific to that region. We would benefit if a similar study were done in our cloud seeding study area. Mark responded that the WEA would not permit a cloud seeder to remain shut off in order to randomly test whether cloud seeders were causing the increased precipitation.

- i. David Graf – the drier storms do not release as much water as wet storms during wet years. So, the seeders tend to be more effective in wet years.
 - j. Chris Treese asked with the cost per acre-foot would be. On average 17.7” SWE (Snow Water Equivalent) falls on the Grand Mesa area. The WEA estimates they get 16,426 additional acre-feet from their cloud seeding operations. The cost to operate the cloud seeding program is \$6,735, which amounts to \$.41 per acre-foot.
10. **Colorado Water Plan comments are due May 1, 2015.** Jim Pokrandt recommended that we send a general letter of comment from the CBRT. There’s good discussion on conservation and land use; some discussion on agriculture that can be improved, and discussion of the 7 points. We should emphasize conservation, reuse, and land use more. Our earlier stance that the 7 points should not be in the Water Plan still stands.
- a. See CAWA position paper that came out in April 2015.
 - b. Lane is concerned that the state is endorsing water projects. Water projects are drawn out due to federal rules like NEPA; Colorado doesn’t have a big say in this. The state is recommending that project proponents and stakeholders determine the scope of the project early on, and not change this as the project progresses. This has created another East v. West Slope dilemma. Lane recommends that the state host a meeting with all of the permitting agencies at the beginning of a project so the applicant knows upfront what information is needed. This early meeting is the best way the state could help this process. The Army Corps of Engineers requires a public interest review, and the state’s approval could pre-empt this. The state should not endorse water projects See section 9.4 on streamlining. Efficient permitting is the state’s interest.
 - c. Ken suggested we repeat or recommendation that the high-conservation strategy should be adopted statewide.
 - d. Rachel Richard –
 - i. Promote the stretch goal to reduce Colorado River consumption by 200,000 acre-feet.
 - ii. The 7 Points should apply to IPPs – they should be subject to the same level of care in implementation as a new trans-mountain diversion. For example, the 7 Points say there should be no additional environment damage and that projects should be mutually beneficial to the West and East Slopes. Rachel recommended that these same standards should be in place for all IPPs.
 - e. Paul Bruchez – endorse CAWA’s recent comments in the letter. Jim Pokrandt says the state needs an agricultural policy as well as a water policy.

11. **Hydrologic Modeling.** Angie Fowler. We requested Brent Newman and Andy Moore of the CWCB to talk to us about the CDSS model, and also requested that The Nature Conservancy explain the Water Flow Evaluation Tool (WFET) model that it developed; this is scheduled for May 18.
12. Angie asked for more CBRT members to join the grant approval committee. She recommended that we review applications and meet less frequently and take a broader look at what our goals as a Roundtable are. Caroline Bradford recommended that we look at South Platte's procedures.
13. Louis Meyer reported on **the Roaring Fork's 3 main projects to include in the BIP:**
 - a. RF Watershed Plan lists 9 urgent recommended actions. They include assessing the sustainability of local stream flows and protecting them; water conservation efforts to enhance stream flows; and onsite wastewater treatment systems.
 - b. Crystal River stream health – this has been the focus of many recommendations over the years. Crystal River flows dropped to 1 cfs in September 2012.
 - c. Implement Aspen's water efficiency plan. This is a portion of the Roaring Fork Valley's water conservation plan.
 - i. Heather Tattersall recommended that this should be expanded to include the entire Roaring Fork Valley's water conservation plan instead of just including Aspen's plan.
 - d. Louis thinks the Roaring Fork's plan had the least vetting of the 7 regions in the Colorado Basin. With more vetting, these may not be the top 3 projects.
14. **Discussion of the 7-Point Conceptual Framework.**
 - a. Eric Kuhn. Discussion of the 7 points started in 2013. East Slope members of the IBCC said we need to proceed full speed ahead planning a new trans-mountain diversion. The agricultural buy and dry trend of last 30-40 years will continue. The 7 Points grew out of this, and were released in June 2014. The IBCC did not meet again until January 2105, and purposely did not discuss the 7 Points because they wanted the Roundtables to discuss them. The January 2015 meeting was held at the same time as the Colorado Water Congress annual meeting. They agreed they made it a mistake by calling it a *Conceptual Agreement*. It's a now called a framework, not an agreement.
 - b. A 7-Point subcommittee was formed, including IBCC members Eric Kuhn, John McClow, Bruce Whitehead, Melinda Kassen, Eric Wilkinson, and Jim Lochhead. Eric wants a representative from the Yampa on this IBCC Subcommittee.

- c. The Colorado Basin Roundtable is unique because there are already 500-600,000 acre-feet of existing trans-mountain diversions from the Colorado Basin.
- d. 4 subjects are covered in 7 Points:
 - i. A New Supply trans-mountain diversion.
 - ii. We don't know how much more water we have to develop. It's inappropriate for a new trans-mountain diversion given this. There is no such thing as *firm supply* for post 1922 water uses.
 - iii. Triggers would allow water to be diverted when there's a surplus in the entire system, from Lake Powell up. It's probably going to be tied to Lake Powell elevations. There have been a few wet years, but far more dry years than wet over the past 16 years. It had surplus water once. How many City Councils would approve a project that fills once every 16 years?
 - iv. Point 4 is an "insurance policy" to protect existing uses. A new trans-mountain diversion should not increase the risk that there is a Compact Call or that additional West Slope agriculture is fallowed to meet it. The prior appropriation system does not work well when you are over-appropriated. This will be a very difficult discussion. We are on a collision course to deciding whether or not we have a 7 Point Conceptual Framework – the hydrology is driving us to this discussion anyway.
 - v. It doesn't matter whether you are diverting 12 feet per acre or 4 feet per acre, all that matters is consumptive use.
 - vi. Fundamental question – were these 7 points meant to only apply to a new trans-mountain diversion, or do they have broader application. Melinda Kassen says they apply more broadly, including all IPPs. We need point 4 whether or not we have a new trans-mountain diversion.
 - vii. Three approaches in the Colorado Water Plan:
 - 1) Discuss the 7 Points and pros and cons (Ark and So Platte think the whole subject is nonsense, since it is clear the Front Range needs more water from the West Slope.
 - 2) Reach consensus on the 7 Points and the triggers.
 - 3) Have no discussion.
- e. The Colorado Water Plan does not have the force of law, and it doesn't affect anyone's legal rights to pursue additional water supplies.

- f. 99% of IPPs are in-basin projects. There's no common definition of IPP. The Gunnison Roundtable says any new consumptive use upstream of Lake Powell will increase everyone's risk.

15. Louis Meyer –

- a. Schmueser Gordon Meyer produced the Colorado Basin BIP based on 80 meetings over 6 months, and delivered it to the CBRT in June 2014. At a meeting in June 2014 before a realtor group, Russell George said that the West Slope and East Slope had reached agreement on when a trans-mountain diversion was permissible. Louis was surprised by this. Based on his public outreach experience, he thinks there's a different viewpoint from citizens and what the CWCB and state water officials are thinking. The CBRT took the position that the 7 Points should not be in the Colorado Water Plan.
- b. At the joint West Slope Roundtable meeting in Grand Junction on December 18, 2014, the 4 West Slope Roundtables decided to create a caucus. Meetings were held February 2, March 3, and April 15. Louis represents Garfield County as a volunteer, and he has made several presentations regarding the 7 Points. At the April 15, 2014, Roundtable Caucus meeting, it was decided that the CWCB will vote on whether the 7 Points should be in the Colorado Water Plan or not, and the consensus is that it will be included. The public part of this process has broken down because the group is not deciding how the process goes forward. Instead, the 7 Points are being drafted outside the process and presented to the group. The 7 Points have not been vetted by the public.
- c. The 7 Points are a major shift in how we plan water supply. They do not address Land Use. They lack clarity, and they will be a central part of Colorado's Water Plan.
- d. Point 1 - There is no more water to give. Look at the damage to all the upper headwater streams. Ag is already 100,000 acre-feet short. Within the Colorado Basin there are water quality problems in the Middle Colorado, salinity problems in the lower basin, and 10,825 water deliveries required in Grand Junction since flows are so low already. By 2040, the Bureau of Reclamation is projecting a Compact shortage 25% of the time and a 3.2 maf shortage by 2060. Of the 401 IPPs we brought forward, many of them were designed to rectify damage already done.

When we plan new supplies, we always look at a dry year yield – we look at the drought years of 1977, 2002, and 2012 and gauge new supplies based on yields in those years. Once new roofs are built, they aren't treated any differently than existing houses.

- e. Point 2 – Use new supplies conjunctively with the Denver Aquifer. This is a risky supply, since it is being mined and levels are dropping throughout the Aquifer now. Additional growth is poor planning if you don't already have a firm supply.
- f. Point 3 – Triggers are needed. There would likely be a Lake Powell trigger, such as 80% capacity. Powell hasn't been 50% full since 2002. There's too much risk already to justify a new trans-mountain diversion.
- g. Point 4 – Insurance policy. The insurance policy really means fallowing agriculture land.
 - i. Dan Beard, former BLM chair, said it's time to get rid of Lake Powell.
 - ii. Don Chaplin –shouldn't we address the deficit we have now rather than getting involved in a new trans-mountain diversion? We have a legal obligation to meet the Compact, and if we don't meet it we will be in a helluva mess.
 - iii. New Mexico, Wyoming, and Utah are not going to stop developing their water supplies.
 - iv. Jim Pokrandt – before we have a Compact Call, Lake Powell will drop below the power pool and we'll fail to generate power. This will create a crisis. The Lower Basin is overusing Colorado River water by 1-1.2 maf each year.
- h. Point 5 - Future West Slope needs should be protected. How do you do that? Everyone is pointing to taking water from agriculture. Four institutional processes are doing that today:
 - 1) The demand reduction program. 4 Upper Basin States agree to reduce demand.
 - a) You can't fallow fruit orchards; you can't fallow cow-calf operations. You lose markets if you fallow.
 - 2) The Water Bank will pay farmers to voluntarily reduce irrigation.
 - 3) The Bureau of Reclamation says the 7 states should each save 200,000 acre-feet of consumptive use of water from agriculture.
 - 4) Point 4 of the 7 Point agreement says that an insurance policy is needed to protect West Slope water consumption, but agriculture dry-up is the only likely source.
- i. Point 6 – Improve conservation and reuse – Colorado Water Plan

- j. Point 7 – Environmental Resiliency – Our group put a lot of work into developing this point, and the IBCC working group of 5 summarily said it would not be included in the 7 Points before the West Slope Caucus had a chance to discuss this paper. That is poor public process.
16. Louis's recommendations:
- a. 100% protection for Shoshone and Cameo calls.
 - b. Protect Ag.
 - c. Protect stream flows.
 - d. If the top of the hydrograph is lopped off for new rooftops, that will make Colorado water law even more complex.
 - e. Why don't we put growth and land use limits in these 7 Points? Why don't we discuss the damage that has already been done?
 - f. A trans-mountain diversion will require a lot of support on both sides of the hill. In meetings Louis has held, the public is almost 100% against new trans-mountain diversions.
 - g. Let's get the 4 West Slope Caucus RTs together and come up with a joint statement opposing it. The CBRT should take a stand, and the 7 Points do not reflect what the CBRT has said before.
17. Comments from the Audience.
- a. Rachel Richards said that the Colorado Constitution permits cities to condemn agricultural water rights to meet domestic demand. She is concerned that this could occur if new dams are built on the West Slope that do not fill regularly due to the triggers.
 - b. In the 1977 drought, Denver tried to keep water in Dillon Reservoir that was meant for Green Mt. Reservoir, and Denver said the water was needed for domestic purposes. The judge ruled that the federal government operated Green Mountain Reservoir, and that federal law preempts state law. Denver was over-ruled, but it showed its hand by claiming that agricultural water rights could be trumped by domestic water needs.
 - c. Chuck Ogilby raised a constitutional law question – If Denver takes water to recharge the Denver Aquifer through a trans-mountain diversion, that could be a domestic use and be used to condemn agricultural water rights on the West Slope.

- d. Lurline Underbrink Curran – 13 entities in the NCWCD made a huge gamble that they'd get 30,000 additional acre-feet from Windy Gap, and they have succeeded. We are being asked to participate in a Water Plan, and our problem with the 7 Points is they are not specific. We have to participate in the process, so we are better off negotiating the 7 Points rather than saying, "not one more drop." What do we do to protect the West Slope? There has to be a public conversation about this. Some positive things have happened, such as the Shoshone Outage Protocol.
- e. Ken – the problem is that the 7 Point West Slope Caucus has stopped meeting.
- f. Rachel Richards – We need specificity. If there isn't water in the future but facilities such as dams are built, what security do we have that the East Slope won't purchase agriculture water rights to fill them? Jacob Bornstein said the 7 Points are going to be in the CWP as written. It seems like the die is cast, and that the Front Range will take more water from the West Slope. The thrust of the Colorado Water Plan is how to take more water out of the system, not how to protect non-consumptive needs. Ruedi water was supposed to be for continued municipal growth on the West Slope; instead, it's now being used for endangered fish recovery. There is no more water to take out of the system. All the players are trying to go along, but we need to dig our heels in.
- g. Steve Aquafresca. The West Slope has a long history of getting rolled. Our best defense is to keep staying in there and keep hammering away. Without the Colorado River Cooperative Agreement (CRCA) we would have been rolled again. It's a worthwhile agreement. We're not close to having a all on the river, but we are close to Lake Powell dropping below the power pool. BuRec runs most of our major dams, and they will see to it that Lake Powell doesn't drop below the power pool. If the river continues to shrink, we can look to So Cal Water Metro District. They're buying agriculture water, and they'll do more of this. That's what will occur here in Colorado if the drought continues.
- h. Ken – Point 6 says simply that Colorado will continue its commitment to improve conservation and reuse. This isn't specific enough.
- i. Steve Child is concerned that Triggers are not set in Point 3. Who decides what these are? For example, Lake Powell levels should be increasing before we have any more trans-mountain diversions.
- j. Karl Hanlon – we are outnumbered. Decisions get made in the state legislature, or in a closed room where water rights are transferred between private parties. Representatives from the CBRT are on the IBCC, and they are representing us. The CWP is not legislation. Karl is more concerned about IPPs on the books than a new trans-mountain diversion. Our White Paper spelled things out. We already have responded to the 7 Point Conceptual Framework there.

- k. Louis recommends the 4 West Slope Roundtables should keep meeting to come up with a unified statement.
 - l. Lurline – we should edit the 7 points that have been summarized.
 - m. Louis Meyer, Steve Child, Lurline Curran, and Ken Ransford formed a subcommittee to prepared a detailed response to the 7 Points. It will be presented at the June 22, 2015, CBRT roundtable meeting.
18. Steve, GWS Mayor. He was on the Water Quality Control Commission, and was the swing vote on Two Forks. There was no water plan in Colorado at that time, and it was fought brutally by the lawyers and the experts. Clean water is a public value, but our appropriation system talks about water as a private right. The 7 Points are the basis of a Basin of Origin law. The West Slope needs to have a voice in this discussion. There will be a pressure within the WQCC to recognize a state position. We should be as specific as possible. It feels like we are in a rush to complete something that has a time deadline, and that is where the pressure is. The lawyers will be using this document any way they can in the debate that gets to the Colorado WQCC. We don't have any real representation in the legislature in water quality or land use. The 7 Points should recite what the West Slope wants.
19. The BIP draft was delivered by Karl Hanlon. The exhibits aren't attached since they are so voluminous.