IBCC call Colorado River Basin

1. January 27, 2020, CBRT Minutes.

1. **January 27, 2020 CBRT Minutes –Snowpack is average; Jason Turner replaces Jim Pokrandt as Roundtable chair; 2021 update on SWSI gap projection; Consumptive Use Study on Upper Colorado River Basin**.

2. **Next Meeting: March 23, 2020, Glenwood Springs Community Center, 12:00 – 4:00.**

3. **Upcoming Meetings**

   a. January 27-28, CWCB meeting, Westminster
   b. Colorado Water Congress, Denver, Jan 30-31
   c. February 1, County Ag Expo, Garfield County fairgrounds.
   d. April 28-30, 2020, 3-day BIP update workshop

4. Reporter: These minutes were prepared by Ken Ransford, Esq., CPA, 970-927-1200, ken@kenransford.com.

5. **CBRT Members Present**: Steve Acquafresca, Kim Albertson, Nathan Bell, Paul Bruchez, Stan Cazier, Kathy Chandler Henry, Carlyle Currier, Angie Fowler, Karl Hanlon, Dan Harrison, Mark Hermundstad, Bruce Hutchins, Diane Johnson, Kirsten Kurath, Merritt Linke, April Long, Ed Moyer, PJ Murray City of Aspen, Ken Ransford, Karn Stieglemeier, Lane Wyatt

6. **Guests:** Jeff Bandy Denver Water, Brent Bovee—Westwater Engineering, Perry Cabot CSU Extension, Don Boyer BWCB, Bobbi Jo Clark—Lateral ML47 Ditch, John Currier Colorado River District, Dennis Davidson Mt. Sopris Conservation District, Kathy Ericson—Lateral ML47 Ditch, David Graf, Scott Fields—Grand River Ditch, William George—Colorado Ranch Co., Luke Gingerich J.U.B. Engineers, Linda Hansen and Larry C.—Grand River Ditch, Megan Holcomb CWCB, Hannah Holm CMU, Paul Kehmeier USDA, Victor Lee US BuRec, Kathy Kitzmann Aurora Water, Greg Johnson CWCB, Heather Lewin, Drake Ludwig Wright Water Engineers, Mickey O'Hara Colo. Water Trust, Maria Pastore Colorado Springs Utilities, Jim Pearce— Canyon Water Resources, Brent Peterson—Grand River Ditch, Greg Peterson CAWA, Katie Randall Middle Park Water Conservancy District, Russ Sands CWDB, Scott Schlosser, Heather Sackett Aspen Journalism, Chris Treece Colorado Water District, Jason Turner Colorado River District

7. **River Forecast.** The water supply forecast on the West slope is about 90% of average because **soil moisture is low. Snowpack has the biggest impact on river supplies**. We had a great snowpack last spring, but the monsoon did not form because of an unusually persistent trough. **2019 was the third hottest and 9th driest summer in Colorado history**. Soil moisture conditions in 2020 is similar to 2019, though not as bad. The **drought manager is predicting it to be abnormally dry in 2020**.

a. The Colorado River at Dotsero is running at 900 cfs on January 27, 2020, equal to its median of 898 cfs on that date.[1] The Colorado River at Cameo is running at 1,560 cfs, above to its median of 1,500 cfs on that date.[2]

8. **Snowpack and Colorado River levels.** We are above average in both the Upper Colorado River Basin and the entire Lake Powell drainage, and tracking the 2019 winter. **West slope basins range from 106-113% of average snowpack**.

9. **CBRT Elections.** Jim Pokrandt and Karn Stieglemeier are stepping down as chair and vice chair; Jim Pokrandt has been chairperson since 2008. Ken Ransford recommended that **Jason Turner be appointed as the chairperson for 2020**, and Stan Cazier seconded the motion; after discussion, the motion passed unanimously. Jason is one of two staff attorneys at the Colorado River District, and Steve Acquafresca is concerned this will impact his time as an attorney. Jason said he would be able to work the role as roundtable chair into his job. Paul Bruchez recommended that a co-chair be appointed since Jason Turner has not been actively involved in the CBRT roundtable.

   a. Merritt Linke said that other roundtables have hired administrative support for roundtables, and recommended that we consider that here.

   b. One recommendation at the next Steps meeting on January 23, 2020, was to divide up tasks among 3 persons.

      i. Administer grants
      ii. Administrative tasks
      iii. Represent the Roundtable at statewide policy discussions

   c. Ken Ransford recommended an executive committee be formed to help the transition to Jason Turner serving as roundtable chair.

   d. Ed Moyer nominated **Paul Bruchez to serve as vice-chairman**; Diane Johnson seconded, and Paul accepted the nomination. **Karn agreed to serve as vice-chair for the remainder of 2020**, after which she is term-limited as a Summit County Commissioner, so Paul and Karn will serve as vice-chairs.

   e. April Long motioned for **Ken Ransford to be the secretary**, and Diane Johnson seconded, and he was appointed unanimously.

   f. **Stan Cazier and Carlyle Currier were unanimously approved to serve as the IBCC representatives**.

10. **New Grant application matrix—**Angie Fowler described the new grant application matrix that she developed together with Kirsten Kurath and Laurie Rink. The grant

[1] Dotsero forecast: https://waterdata.usgs.gov/usa/nwis/uv?site_no=09070500.
[2] Cameo forecast: https://waterdata.usgs.gov/co/nwis/uv/?site_no=09095500&PARAmeter_cd=00065,00060

application is in the MS Word file titled ***20.01.14 CBRT Proposal Instructions DRAFT_.docx***.

a. The matrix contains information that applicants should consider in grant requests submitted to the roundtable**.**

b. Angie recommends that grant applicants work together with a roundtable member to fashion the grant request and introduce the applicant.

   i. Applicants should be encouraged to obtain a sponsor.
   ii. The grant application should describe how success will be measured.
   iii. It should **describe any conflicts or opposition** to the project.
   iv. Grant applicants are encouraged to **report back to the roundtable** on grant progress.

c. Should we limit the number of times we review grants? Kirsten Kurath commented that the roundtable has been asked this before, and agreed to continue accepting rolling grant applications as they are presented to the roundtable.

d. Dennis Davidson said that this application form will extend the time the applicant takes to make an application by a month, "**Only engineers can complete this form**; less sophisticated ditch companies will have trouble completing this."

e. Megan Holcomb of the CWCB mentioned that this grant application protocol is significantly longer than prior applications or what other roundtables are requiring.

f. Hannah Holm said the Gunnison Roundtable has a grants committee and recommended that the CBRT consider doing this.

g. Paul Kehmeier said his main job is to help applicants complete grants. There are 2 categories—first- and one-time grant applicants, and professional grant applicants who do this frequently. This will be difficult for first-time applicants.

h. It was decided to **defer approving the grant application based on these comments** until the March roundtable meeting.

11. Jim Pokrandt proclamation. **After serving as Roundtable Chair since 2008, Jim Pokrandt is stepping down**. Stan Cazier commended Jim Pokrandt, mentioning that Jim was his boss at the Middle Park Conservancy board, and discussed how important a role Jim has played in supporting the Colorado Basin Roundtable. Ken Ransford **commended** on **his leadership at the 4 Basin Roundtable Meetings and at statewide meetings**.

12. WRSF **pending grant applications**.

a. **CAWA grant request for outreach: $5,750**, part of a total budget of $65,500. Greg Peterson described CAWA, the Colorado Ag Water Alliance, as an

association of 17 agricultural organizations. Carlyle Currier is on the **CAWA** board, whose **goal is to protect irrigated agriculture**. They have hosted meetings in Glenwood Springs and Rifle, and will be hosting two workshops in this area next winter. This grant will be used to do a ditch inventory, and to emphasize the role that ditches play in integrated water management plans.

i. Colorado passed **Regulation 85** in 2012 to reduce nutrient pollution in lakes, rivers, and streams. Regulation 85 does not currently regulate agriculture, but recommends voluntary action to avoid future regulation after 2022. The regulation **encourages ditch companies to show that they have adopted best practices**. Peterson said data is sorely lacking in this area. See https://coagnutrients.colostate.edu/ for more information.

b. **Canyon Creek Fish Passage: $20,700 request** for fish passage improvement in culvert beneath I-70 near New Castle. Drake Ludwig of Wright Water Engineers made the presentation. Partners are Trout Unlimited, Colorado Parks and Wildlife (Kendall Bakich), and the Colorado Dep't of Transportation. The drainage is 56 square miles, and this would restore a fishery in 12 miles of Canyon Creek. This will **improve the ecology of both Canyon Creek and the Colorado River.**

i. The **total cost is $203,625, of which $101,812 is from the CWCB Statewide WSRF** (50%), $20,700 from the CBRT (10%), $27,000 in-kind support from Trout Unlimited (15%), and $51,000 from CPW (25%). David Graf expressed support for the project.

c. **Crystal River augmentation study** proposed by the West Divide Water Conservancy and the Colorado River District: The grant request is **$12,500 from the CBRT WSRF and $25,000 from the CWCB statewide WSRF.**

d. **Grand River Ditch improvement for the Davis Point Pipeline**: $25,000 basin request and $25,000 statewide request. They plan to lay 825 feet of 48" pipe. Dennis Davidson made the grant presentation together with Linda Hansen of the Grand River Ditch Company. Davis Point is **1 mile east of Silt**, and this would reduce ditch leakage from the ditch which services **143 users and irrigates 1,508 acres**; its appropriation date is September 14, 1888. The Town of Silt derives its water from this ditch. **Hay fields and fruit trees** are irrigated by the ditch. Grand River Ditch Co is also known as the Cactus Valley Ditch; it has a board of directors, and has hired a ditch walker.

i. The total cost is $175,000, they received a $60,000 EQIP grant and the NRCS will do the engineering. **The ditch company is contributing $5,000 of in-kind services**.

ii. Another landowner tried to install a pipeline but it did not work. Paul Bruchez said they have used Mirafi fabric on his ranch, the Reeder Creek Ranch upstream of Kremmling, and it can withstand livestock traffic.

Mirafi is a non-woven fabric used in landfills and at fracking sites to contain liquids from leaching into soils. Dennis Davidson said they would still have to remove silt from the ditch so this would not help.

iii. How long did the ditch inventory take: **It took 6 weeks to canvas 143 landowners**. The presenters mentioned that mapping with Google Earth is not fun.

e. **Lateral Ditch ML47 Basin and Statewide grant request: $8,000 to the CBRT and $72,000 to the CWCB statewide WSRA** grant fund, and $82,000 from the CWCB construction fund. The **total cost** estimated by the NRCS **is $700,000**. This ditch receives water from the Grand Valley Irrigation Company (GVIC). Kathy Ericson, president of the ditch company, and Paul Kehmeier presented. They **service 350 acres, of which 79% are in the Palisade Buffer Zone**. Some of the land is in protected with a conservation easement.

i. They want a pressurized underground system; the cement culvert is 44 years old and crumbling. This will help control salinity and prevent ditch seepage. They acquired a **BuRec grant for $538,000**. The **Lateral Ditch ML47 is an incorporated private ditch**.

ii. The pipe is 18" at the head gate, and it drops in diameter further down the ditch. The flow rate in the pipe is 4.5 cfs.

iii. For more than 20 years, there have been **buffer zones on either side of Grand Junction, separating it from Fruita and Palisade**. Buffer zones are essentially an agreement between the cities, towns, and county that land will remain unincorporated Mesa County land and that the cities won't rezone or add amenities like sewage treatment to it. The buffer zones are **meant to ensure that cities don't run together**, as occurred in many Denver suburbs.

13. **Update to the SWSI Colorado Water Plan**, presented by Greg Johnson, Russ Sands, and Megan Holcomb of the CWCB. Matt Lindburg, supervising engineer at Brown & Caldwell, and Kara Sobieski of Wilson Water Group are also organizing this endeavor. This is the **first update since Colorado's Water Plan was released in 2015**.

a. The plan is to **update the BIPs by December 31, 2021**.

b. They are **incorporating climate change data**, and HB-1051 data obtained by surveys of municipal water use. They have a costing tool to allow grant applicants to **get ballpark numbers for project costs**.

c. Five different stakeholder scenarios are being addressed in the update:

Scenario	Projected 2050 population
Business as usual	9 million
Weak economy	7.8 million
Cooperative Growth	8.5 million
Adaptive Innovation	9 million
Hot Growth	9 million

d. **Population projections have declined from 10 million to about 9 million** in 2050.

e. The M&I gap is 245,000 to 754,000 acre feet, and the incremental ag gap is 23,000 to 1,053,000 af.

f. Next steps. The **goal of this is to determine the gaps**, which are similar to SWSI 2010. They lacked data before to create models of the gaps.

g. This is the first time they have updated the Basin Implementation Plan BIPs; CWCB funding is $290,000 per basin to update the BIPs. There has been 50% turnover among roundtable membership in recent years.

h. Core duties:

i. Basin scoping: understand the existing IPP project list.
ii. **Improve project data. The CBRT has 283 BIPs, but only 2% of them have cost data**.
iii. Refine the technical update findings
iv. Draft BIP Volumes 1 & 2.
v. Make the process more efficient.

i. The CWCB has dedicated **$20,000 toward identifying case studies** that serve as examples for other basins.

j. The Request for Quotation RFQ will be posted January 28, and the **CBRT has until March 27 to select a local expert to update the Colorado BRT BIP**. Applicants should respond to Brown & Caldwell; Matt Lindburg will set up a Microsoft SharePoint folder for each roundtable to use to store data.

k. An intensive **3-day workshop is scheduled for April 28-30 to train local experts** to update the CWP. The basin roundtable chairs can attend.

l. **The local expert should not be a member of the roundtable if it could be requesting grant funds** from the roundtable that would pay itself.

m. The $290,000 SWSI update budget is for the following tasks:

i. **$120,000 for the local expert**, amounting to 40-80 hours per month for an engineer.

ii. A subject matter expert would receive **$20,000 to develop case studies**.

iii. The general contractor (**Brown & Caldwell) will receive $140,000 in order to provide support services** and resources to the CBRT.

iv. **Workshops for presenting SWSI updates to the public** is budgeted for $10,000.

n. No amount has been budgeted for Demand Management in the SWSI update, but we could **identify Demand Management as an IPP** to include it that way.

14. **Demand Management update**, Kirsten Kurath, Paul Bruchez, and Perry Cabot, CSU. Paul Bruchez recommended that we **do an Upper Colorado conserved consumptive use project**.

a. Open questions: **Will producers commit** to reducing irrigation to determine its impact on water conservation? **What is the impact on return flows**?

b. The Roundtable will be the applicant for an ATM grant and Trout Unlimited would be the contracting entity/fiscal agent; the grant application is projected to be submitted by February 7. The **project size is 1,200-1,500 acres**. They require a 10% match, but the NGOs will contribute this. There is no grant request from the Colorado Basin roundtable.

c. One local producer said she would immediately stop selling hay so they can hold on to what they have in case they end up fallowing irrigated hay land pursuant to the study.

d. **What are the consumptive use rates for high altitude hay fields?** There is a lot of data on this, but this project can help develop baseline consumptive use rates of "high altitude perennials." **The proximity of the groundwater table affects consumptive use as well**.

e. Perry Cabot described **recent technological advances**, commenting that a $4,000 drone can measure multispectral reflectance, which **measures the wavelengths of color reflecting off the land**. This quantifies the color of the field from blue through infra-red wavelengths, from which you can estimate consumptive use rates. There have been significant "Open ET" changes as well—that is**, free software available to the general public to estimate evapotranspiration** so that water consumption is more transparent.

f. The study will **focus on recovery patterns of these fields**. Perry Cabot would do a lot of the infield monitoring; they would bring in a **remote sensing expert**.

g. Bruchez addressed the concern, "Too much support of Demand Management means it will be happening," saying that **more information about consumptive use is a good thing, not a bad thing**.

h. April Long asked about return flows—how will they measure them? It's still unclear. There are two storage facilities that can store and release water return flows at 8,200' and 7,300' in the Upper Colorado River near Kremmling to mimic return flows.

i. Karn Stieglemeier made a motion to support the grant request so that the CBRT is the applicant, and Nathan Bell seconded it. **David Graf stressed the importance of this grant request** because we lack data to back up how much additional water could be created by reducing use. Kirsten suggested that the Demand Management subcommittee could reach out to stakeholder groups to explain.

j. **Steve Acquafresca said there is no method of measuring conserved consumptive use that the ag community accepts**. Perry Cabot said that providing **science-based approaches could provide a range of numbers**. The reason there's no accepted number is that there are so many numbers and data collection techniques. When you include remote sensing, that opens up a lot of new methods which haven't been previously used. CSU doesn't want to tell farmers what their consumptive use is; however, having a range is helpful.

k. The Denver Board of Water Commissioners did a lot of **lysimetry work in South Park, and ended up with a series of consumptive use tables depending on how high the water table was**. This addressed what effect the water table had on consumptive use; **this study will enhance that work**, in another high altitude basin, by adding remote sensing to it. This will likely result in a range of numbers rather than a single crop coefficient.

l. Nathan Bell said that **what is needed is multi-year data**, since droughts can last for years as is happening in Australia's Murray-Darling basin.

m. According to Cabot, a key element of this project is its **scalability**. We've done several ad hoc studies in scattered fields previously when landowners agree to participate. This is a better study because there is a lot of diversity among the fields here. Recovery depends on the type of grasses. This is a more scientific approach; grasses are very resilient, but if you don't irrigate, you have weeds and bare spots.

15. **Alternative Transfer Method ATM grants**, Luke Gingrich, Engineer with JUB Engineers, and Brett Bovey with Westwater Research presented. The CWCB is supporting this program. $5.3m of ATM grants have been awarded, primarily for front range municipalities. **How can we avoid permanent dry up of fields to support municipal needs, and how can we address recreational and environmental needs?** There are 18 members on the advisory committee from around the state.

a. Luke has prepared **8 questions for roundtables**; these are available online at https://forms.gle/LRtuxUygn2Hx4Bc66.

   i. How familiar is the CBRT with ATMs?

   ii. Who should they interview in the basin? Paul Bruchez, Paul Kehmeier both volunteered. They're more interested from the agricultural user's side.

   iii. Are there examples of ATMs in the Colorado River Basin that forestalled permanent ag dry up?

   iv. What are unique issues to this basin that an ATM could address.

   v. **How could ATMs be used in Demand Management**.

   vi. What are the **most difficult barriers in ATMs in the CBRT Basin**.

   vii. What is the role that ATMs could play in promoting water conservation in the Colorado River basin?

   viii. What is the appropriate role for the state? Is this ATM program an appropriate task for the state?

b. Bruce Bovey said ATMs have been around for a decade, and there's more support for them than ever. $5 million has been spent exploring ATMs; a major role of **this project is to communicate the results of these studies and projects to the state**.

c. **ATMs should not be used to deliver more water to the Front Range through transmountain diversions**.

d. The and Ute Water and Eagle River Water & Sanitation Districts are potential buyers**. An ATM lacks certainty, so cities have been reluctant to rely on them, preferring to buy and dry** instead. This what Luke Gingrich is trying to get at—what are the barriers to adopting ATMs.

e. Municipal water providers are very risk averse.

16. The **Colorado Natural Heritage Program has requested a letter of support for a Colorado Water Plan grant request for a healthy rivers grant to the CWCB**. Jim will forward this to Russ Sands and recommends we support this and draft this letter.

17. Hannah Holm described an **upcoming water program at Colorado Mesa University** on 2/11, 2/18, and 2/25 from 6-9 PM.