Interbasin Compact Committee (IBCC) – Demand Management Workgroups Meeting Wednesday, March 4, 2020 Sheraton Hotel 360 Union Blvd, Lakewood, CO 80228 Meeting Summary-DRAFT

IBCC Members Present

Dave Bennet (alt. Metro), Paul Bruchez, Stan Cazier, Aaron Citron, Sean Cronin, Carlyle Currier, Lisa Darling, Jeris Danielson, Joanne Fagan, Russell George, Tom Gray, Jeff Meyers, Ed Millard, Andy Mueller, Al Pfister (alt. Southwest), Bob Sakata, Terry Scanga, Cleave Simpson, Barbara Vasquez, Pat Wells, Mely Whiting, and Jim Yahn

IBCC Members Absent

Senator Kerry Donovan, Steve Harris Keith Holland, Jim Lochhead, Jeff Myers, Representative Dylan Roberts, and Bill Trampe

Colorado Water Conservation Board (CWCB) Board Members and Basin Roundtable Chairs

Steve Anderson and Gail Schwartz

CWCB Staff

Linda Bassi, Viola Bralish, Alex Funk, Russ George, Megan Holcomb, Greg Johnson, JoJo La, Sara Leonard, Brandy Logan, Becky Mitchell, Amy Ostdiek, Andrew Rickert, Kirk Russell, Russ Sands, Erik Skeie, Sam Stein, and Ben Wade

Demand Management Workgroup Members Present

Laura Belanger, Ken Curtis, Cary Denison, Luke Gingrich, David Graf, Dave Kanzer, Frank Kugel, Kevin Lusk, Rick Marsicek, Keith McLaughlin, Carrie Padgett, Kevin Rein, Travis Smith, Andy Schultheiss, John Stulp, Alan Ward, Kyle Whitaker, and Eric Wilkinson

Facilitation

Heather Bergman and Samuel Wallace

Audience

Approximately 20 people were in the audience

ICEBREAKER POLLING RESULTS

Meeting participants were polled on how they felt about icebreakers at the beginning of meetings. The polling results are displayed below.

How do you feel about icebreaker questions?

Response	Number of Responses	Percentage of Responses
I generally like them – it's a	18	53%
good way to get to know people		
I generally don't mind them	11	32%
(neutral)		
Would rather be doing anything	5	15%
else literally anything		

OPENING REMARKS

Russ George, IBCC Director of Compact Negotiations, welcomed the group to the IBCC meeting. His comments are summarized below.

- Russ George welcomed everyone to the IBCC meeting and acknowledged the significance of what is happening at today's IBCC meeting and tomorrow's demand management workgroup meeting.
- Outside of flooding, water resource issues tend to move slowly, but they eventually reach a point in where there is a broad recognition of the issues. It took the drought of 2002 to bring awareness to Coloradoans about the water issues that have always existed.
- The Colorado River Compact did not fix the issues of the Colorado River in 1922, it only changed them. In the Rio Grande Basin, water challenges have existed for hundreds of years.
- In 2005, there was a general recognition across the water community that something had to change in the way that Colorado manages its water resources. Over the past 15 years, the basin roundtables have made improvements, but the issues still persist. In that same timeframe, the IBCC has talked about demand management on the Colorado River.
- Over the past several years, water professionals have put names to the issues, including demand management, as a way to recognize and discuss Colorado's water resource challenges.
- Demand management has been an elusive idea, and the IBCC and the basin roundtables have exercised patience as they have worked to define and understand the problem. When problems are not solved quickly, some people assume the worst.
- Members of the demand management workgroups have joined today's IBCC meeting, and on March 5, IBCC members will join the meeting of the demand management workgroups to discuss ways to lay the groundwork to create solutions for the water issues that face Colorado.

UPDATES FROM THE COLORADO DEPARTMENT OF NATURAL RESOURCES (DNR)

Dan Gibbs, Executive Director of DNR, shared updates. His comments are summarized below.

- Dan Gibbs began his update by thanking those in the room for their leadership, participation, and effort in joining and contributing to the many commissions and workgroups across the state identifying solutions to Colorado's water challenges.
- This year is the second year in which the state legislature will request \$10 million for the general fund to implement the Colorado Water Plan.
- The Governor's Office has issued a series of Wildly Important Goals (WIGs) to Colorado state agencies. Some of these WIGs are attainable within a year, but most will require a multi-year effort. Each agency has their own WIGs, which have associated measurables and are tracked on a monthly basis. The Governor's Office manages an online dashboard where the public can track agency progress on each of the WIGs.
- The DNR's three WIGs involve reforming oil and gas rulemaking, increasing access to public lands, and developing a plan to establish sustainable funding revenue for Colorado Parks and Wildlife (CPW).
- Governor Polis is interested in issuing a WIG related to implementing the Colorado Water Plan, and the Governor's Office is working with CWCB staff to define measurables to track any water-related WIGs. The WIG itself is still in the process of being developed.
- For a water WIG to be successful, it will require all nine Colorado basin roundtables and water resource professionals across Colorado to work collaboratively. Please share any ideas about a water WIG with Dan Gibbs, DNR Executive Director, or Becky Mitchell, Colorado Water Conservation Board (CWCB) Director.

CWCB STAFFING UPDATES

Becky Mitchell, CWCB Director, updated meeting participants on changes in CWCB staffing. Her comments are summarized below.

- Greg Johnson is the new CWCB Interstate, Federal, and Water Information Section Chief.
- Russ Sands is the new CWCB Water Supply Planning Section Chief.

RIO GRANDE UPDATE PRESENTATION

Cleave Simpson, Rio Grande Watershed Conservation District and IBCC member, presented on water resource management in the Rio Grande Basin. His presentation is summarized below.

- There is currently a proposal to pump the water from the unconfined aquifer system under the San Luis Valley into the South Platte River. These types of proposals appear every once in a while, and in recent months, the rhetoric around the proposal has begun to heighten with the spread of disinformation. These types of issues represent the conflicts that occur over water in the Rio Grande River Basin.
- The river gauge on the Rio Grande at Del Norte has been collecting flow information since 1890. The histogram created from the flow data demonstrates the high level of variability in the river flows from year to year, which presents challenges to the agricultural community. There has also been a slight decline in the average flow value from 1890 to the present day.
- The Rio Grande River Basin has been in an extended 20-year drought. In 2019, the river flowed at 900,000 acre-feet at the gauge near Del Norte, which provided relief to the drought.
- The studies that informed the Rio Grande Compact were based on flow data from the 1920s at a time when the flow of the Rio Grande was higher than average, leading to an over allocation of the water resources.
- Water delivery requirements to downstream states functions as a percentage of the annual index flow, and the percentage changes depending on the amount of the annual index flow. For example, in 2019 when the annual index flow was 929,000 acre-feet, the obligation to downstream states was 39% of the annual index flow (361,000 acre-feet). Of the 361,000 acre-feet delivered to downstream states, approximately 50,000 acre-feet were delivered outside of irrigation season; this means that irrigators were curtailed over 300,000 acre-feet during the 2019 irrigation season.
- Each year, the State Engineer's Office has to predict the flow of the Rio Grande River and the Conejos River and set curtailment projections based on their estimate. For example, in 2020, the estimated curtailment of ditches from April 1 to April 4 is projected to be 25% of the index flow, and then from April 5 to May 6, the estimated curtailment is projected to be 26% of the index flow. Then, through the irrigation season and summer, the staff of the State Engineer's Office calculates the flow every 10 days and adjusts the curtailment projections based on the flow data.
- The projections are set using the 10-day flow data to make sure that Colorado does not over or underFdeliver water to the downstream states.
- The Rio Grande community has been managing a curtailment program since 1969 when Colorado was sued for underdelivering water to the downstream states and accrued water debt. The system continued in the 1980s after Colorado came into compliance with the Rio Grande Compact. The curtailment program in the Rio Grande relates to the demand management conversations that are occurring at the statewide level.
- Another important water resource in the San Luis Valley is the groundwater in the unconfined aquifer. In 2002, over 400,000 acre-feet of water was pumped from the unconfined aquifer storage, and the water storage levels continued to decline from there.

- In an effort to stop the water levels of the aquifer from declining, subdistricts of the Rio Grande Water Conservation District formed. There are currently six subdistricts, of which four will be operating in 2020, and all six will be operating in 2021. The subdistricts represent a strategy to try to solve regional problems with community involvement.
- In subdistrict #1, irrigators, representing over 170,000 acres of irrigated land, charged themselves to develop programs to restore the aquifer. The first sub-district filed for recognition from the court in 2009, and after facing legal challenges, it became operational in 2012.
- The goal of the sub-districts is to restore the aquifer water storage levels to their 2002 levels. The irrigators in the subdistrict are paying fees and implementing programs to do so. They have increased the water levels of the aquifer from 2013 to the present, with some decrease in water storage occurring in 2018 due to an impactful drought.
- The programs under subdistrict #1 are voluntary, compensated, and sometimes temporary. In the subdistricts, irrigators pay a fee for the water they withdraw. The price for an acrefoot of water started at \$75, but the prices have increased since then. Raising the fee has intended and unintended consequences, including making certain crops, like alfalfa or barley, cost prohibitive.
- The subdistricts also fund the Conservation Reserve Enhancement Program (CREP) and the Fallow Program. The programs have been successful at reducing pumping from 300,000+ acre-feet/year in 2011 to 200,000+ acre-feet/year in 2019.
- The CREP is funded both by the groundwater withdrawal fees and federal funding. In subdistrict #1, the CREP currently includes 76 contracts, representing 8,714 irrigated acres and 143 irrigation wells. In 2019, subdistrict #1 paid out \$2,775,000.
- Under CREP, subdistrict #1 needed 40,000 irrigated acres to be enrolled in the program to restore the aquifer to its 2002 levels. Because they did not achieve the level of participation they had expected, the subdistrict launched the Fallow Program, which allowed people to fallow their fields in a way that is voluntary, compensated, and temporary. The groundwater withdrawal fees support the Fallow Program, and there is no federal funding to support the Program.
- The subdistricts also can purchase and suspend the withdrawal of groundwater rights to recharge surface water rights. This program is different then buy-and-dry because when the subdistrict purchases groundwater rights, they do not move the water to another region; instead, the water is used to recharge surface water rights in the San Luis Valley.
- There are a handful of producers who do not want to be a part of the subdistricts, but with groundwater rules and regulations coming in 2021, those who are not participating may be subject to regulations and cease and desist orders.

Meeting participants asked several clarifying questions about the Rio Grande update presentation. Questions are indicated in italics with corresponding answers in plain text.

Does the compact curtailment program follow the water rights priority system?

The compact is the number one priority on the Rio Grande River. On the Conejos River, there are times when every water right is curtailed, which include old prior appropriation rights. The state will curtail whatever rights necessary based on seniority to deliver water to the downstream states.

How is the water that is diverted from the San Juan River to the Rio Chama used in Albuquerque? The San Juan-Chama project delivers approximately 100,000 acre-feet from the San Juan River to the Rio Chama. Once it is delivered, the presenter did not know exactly how the water is used.

There is concern that having demand management programs will incentivize people to dry up their land. How much participation has there been in the demand management programs in the San Luis Valley?

- There is less participation than is desired to restore the aquifer to 2002 storage levels because the compensation is not enough. The federal government is fixed in how much funding they can provide, and the Rio Grande Water Conservation District can only raise so much of their own revenue. There is an economic challenge: as people pump less water, they generate less economic output, and so their contributions decrease over time.
- There are also some producers who hesitate to participate in a federal government program.
- The Republican River is facing many similar challenges, especially related to groundwater withdrawals.

How does the Rio Grande Water Conservation District enforce pumping fees? The fees are attached to property tax notices.

Discussion of the Rio Grande Update Presentation

Meeting participants discussed the Rio Grande update presentation. Their comments are summarized below.

- The San Luis Valley is managing a form of self-government. The producers and citizens of the San Luis Valley did something in their own community to address the problems they face. The San Luis Valley model is something to consider as the IBCC and demand management workgroups continue to look at options for Colorado under potential curtailment conditions.
- Colorado has an opportunity to control its own destiny, and if other states are considering demand management in good faith, then the Upper Colorado Basin states may be able to identify solutions.

ALTERNATIVE TRANSFER METHOD (ATM) PILOT PROJECT PRESENTATION

Paul Bruchez, Kremmling-area rancher and outfitter and IBCC member, presented on an ATM pilot project on the Upper Colorado. His presentation is summarized below.

- In January 2019, a demand management workgroup formed under the Colorado Basin Roundtable. During their discussions, the workgroup identified scientific gaps related to the impact of conserved consumptive use on high altitude perennial irrigated crops. They reached out to Dr. Perry Cabot, Colorado State University (CSU), to formulate research questions around conserved consumptive use and its impact on high altitude farming and ranching.
- The workgroup discussed implementing a high altitude pilot project to monitor the impacts of conserved consumptive use, but they initially tabled the project. In August 2019, the CWCB Agricultural Impact demand management workgroup identified similar data gaps, and there was interest to pursue a study.
- Following the November 2019 Colorado Basin Roundtable meeting, Bruchez contacted high altitude perennial irrigators to participate in a pilot project to measure conserved consumptive use impacts on irrigated pastures. There was interest from irrigators representing 1,500 acres of irrigated fields, all of which are a part of the Colorado-Big Thompson project.
- The producers who are participating in the pilot project are real agricultural producers outside of Kremmling. They have faced challenges with irrigation and have been involved in other large river management projects. They recognize the need to have their voices

engaged in the process, and they have been looking to understand how to operate their ranches with diminished irrigation.

- The project partners applied for a CWCB ATM grant with Trout Unlimited as the fiscal agent and the Colorado Basin Roundtable as the primary applicant to implement a pilot project. The collaborative effort has representation from both producers and environmental interests. Researchers from CSU and Utah State University with expertise in agroeconomics, remote sensing, forest science, and agricultural business are involved. A large portion of the budget for the ATM grant is dedicated to remote sensing equipment.
- There are several goals of the pilot project and scientific studies. One is to use different remote sensing methods to monitor biophysical conditions to analyze the impact of conserved consumptive use on high altitude pastures. The second goal is to estimate evapotranspiration as a means of determining conserved consumptive use. The third goal is to identify patterns and risks to forage based on different levels of curtailment. The study will also consider farm and enterprise budgets and agricultural profitability.
- Those involved with the pilot project also want to develop a model that is replicable and transferable to other parts of the Colorado River Basin.
- The science will be used to help the Colorado Basin Roundtable discuss concerns around the impact of curtailment on high altitude farming and ranching.
- There is already a producer who has stopped selling hay with the expectation that they will need to carryover hay from this year as a result of reducing their irrigation for the pilot project.
- The pilot project partners have also reached out to Northern Water and Denver Water to collaborate on the project. Project partners are also interested in collaborating with CPW, which holds 600 acres under a conservation easement in the project area.
- Please reach out to any of the project partners with questions as the team is trying to address as many topics and concerns as possible in the study.

Clarifying Questions

Meeting participants asked several clarifying questions about the Upper Colorado ATM pilot project. Questions are indicated in italics with corresponding answers in plain text.

Does deficit irrigation work on high altitude pastures, and do farmers get paid when there is not enough water to irrigate their fields?

There are several models available on how deficit irrigation functions in wet years, but there is risk involved with deficit irrigation based on how much water is available during any given year. The goal of the project is for irrigators to not absorb all that risk. A part of the pilot project is to understand how ranchers manage their operations when they are going into a year when they are not irrigating and how they manage that risk. The research will help answer these types of questions to manage water resources more responsibly.

What is the plan to manage the lack of return flows to make sure there are no downstream impacts? The producers engaged in the project are located both downstream and upstream from the nearby reservoirs. The project partners want return flows to be a consideration in the project. There may be diminished return flows, but the expectation is that the diminished return flows will not injure downstream users.

Are there restraints on how producers use their land under the pilot project? Could they switch from growing irrigated hay to growing dryland hay?

The water table would need to be high enough for there to be opportunities to grow dryland hay crop, which is not guaranteed. The landscape is diverse, which allows the researchers to understand the impact of conserved consumptive use on different types of land uses. The project partners know that there should be places in the pilot project where there are no grazing or irrigation practices occurring.

STATE ASSUMPTION PRESENTATION

John Kolanz, Otis, Bedingfield & Peters, LLC, presented on the potential implications of state assumption of responsibilities under Section 404 of the Clean Water Act. His presentation is summarized below.

- The presentation is meant to give an overview of the opportunity for states to assume Section 404 program authority and why it is relevant to Colorado. The intent of the presentation is not to advocate for a particular position.
- Over the past several years, there has been an emphasis on redefining the waters of the United States (WOTUS) under the Clean Water Act. The state assumption of Section 404 conversation is different from the redefinition of the WOTUS conversation.
- In 1972, Congress passed amendments for the Clean Water Act. Those amendments outlined large goals, like prohibiting the discharge of a pollutant into WOTUS except by those in compliance with a permit. In order to reach that goal, there are two permitting programs that allow for the discharge of pollutants.
- The first permitting program is the National Pollutant Discharge Elimination System (NPDES) permit under Section 402, which regulates wastewater discharges. The Environmental Protection Agency (EPA) manages the NPDES, but states have the opportunity to petition the EPA to administer a permitting program within their borders in lieu of the federal program. This federalism approach has been popular, and 47 states currently manage their own NPDES permitting program.
- The other permitting program is under Section 404 of the Act and requires a permit for discharging dredge or fill material in all jurisdictional waters. The US Army Corps of Engineers (USACE) primarily administers the Section 404 permits with oversight from the EPA. Similar to Section 402, states have the opportunity to administer the Section 404 permits within their borders, but only two states have assumed that responsibility.
- If states assume Section 404 program responsibilities, they do not take responsibility of all jurisdictional waters; instead, the states only administer Section 404 permits for assumable waters, which are described in 33 U.S.C code 1344(g)(1) in the Clean Water Act.
- If a state chooses to assume Section 404 responsibilities, they have to go through a negotiation with the USACE in which the identify what waters are assumable and unassumable. At the end of the negotiation, the USACE will identify which waters the USACE will retain to regulate, which is often a large percentage of the regulated waters. As a result of this process, states are often not interested in assuming Section 404 responsibilities. For example, the State of Minnesota went through this process with the USACE, and the final report indicated that the USACE would retain responsibilities over 92% of wetlands and 99% of lakes. Minnesota declined to move forward with assuming Section 404 permitting.
- In June 2015, the Assumable Waters Subcommittee formed in request from state interest representatives to recommend a new process to determine what waters a state can regulate when it seeks Section 404 program authority. The goal of the Assumable Waters Subcommittee is to determine how to apply and identify which "waters" and "wetlands"

adjacent" under Section 404 would fall under the regulatory purview of the state or the USACE.

- The Subcommittee composition included 22 representatives of federal, state, and tribal governments with EPA and the US Fish and Wildlife Service (USFWS) as advising members.
- A workgroup of the Subcommittee examined the legislative history to determine what was meant as assumable "waters" and "wetlands adjacent." They determined that the legislative history indicated that Congress intended the Corps to retain authority over Section 10 "waters," which are the waters the USACE regulates under the Rivers and Harbor Act and represent a small subset of the WOTUS, with some opportunity for modifications. Section 10 waters are easily identifiable because the USACE maintains a list of them.
- The legislative history workgroup did not determine what was meant exactly as "wetlands adjacent." The majority recommendation from the Subcommittee was to establish a default 300-foot national administrative boundary, inside which wetlands would be under the jurisdiction of the USACE and outside of which wetlands would be under the jurisdiction of the state. The boundary line could then be shifted to accommodate state-specific situations, like state-specific programs or unique topographical conditions, following a negotiation between the USACE and the state.
- The minority recommendation for defining "waters" and "wetlands adjacent" was to define waters as "Traditional Navigable Waters" as described in the Code of Federal Regulations and apply the concept of "wetlands adjacent" with no administrative limit or boundary.
- The majority proposed method of using Section 10 waters and a 300-foot administrative boundary to define assumable "waters" and "wetlands adjacent" allows states to better understand what waters they may assume and gives them more authority over waters than the traditional method of establishing assumable waters.
- Colorado evaluated state assumption in the early 1990s and decided that the costs of assuming Section 404 permitting authority outweighed the benefits. Under the traditional approach to establishing assumable waters, the USACE would have retained authority over 1,000 miles of streams and the wetlands adjacent, which could be located over 100 miles from a body of water. Under the Subcommittee's majority proposed approach for establishing assumable waters, the USACE would retain authority over 39 miles of the Colorado River and the Colorado portion of the Navajo Reservoir and any wetlands within the 300-foot administrative boundary. Colorado would assume Section 404 permitting over the remaining waters.
- There are two sections in the Colorado Water Plan that are relevant to the state assumption of Section 404 permitting: Section 7.3, which recognizes the relationship between water quality, quantity, and management, and Section 9.4, which recognizes the need for more efficient, consistent, and Colorado-centric permitting.
- The USACE has three separate districts in Colorado. If the state assumes the program, it would reduce jurisdictional inefficiencies by managing Colorado as one area. The State of Colorado could then make jurisdictional decisions, implement compensatory mitigation requirements, and increase efficiency.
- Colorado water rights administration injects complexity into Section 404 matters, which can be challenging in assessing the impacts of a planned water infrastructure project. A planned storage project often requires untangling water rights, deciding how the project will be operated, and managing water rights in the river basin. State assumption of Section 404 would not remove these complexities, but it could allow Colorado's State Engineer's Office to work with a sister agency to solve problems, which may lead to a more efficient permitting process and align water quality and quantity considerations.

- State-issued permits would not trigger ancillary federal policies, like Clean Water Act Section 401 certification, National Environmental Policy Act (NEPA), Endangered Species Act (ESA), National Historic Preservation Act, and Fish and Wildlife Mitigation and Enhancement Plan. Federal policies would still apply to projects when appropriate.
- There are concerns that state assumption of Section 404 would provide less federal protections for the environment and that state-issued permits would be influenced more by local politics than the current federal system.
- State assumption under Section 402 has delivered successes under the Clean Water Act, and there are reasons to think that state assumption of Section 404 would benefit environmental concerns. State assumption would provide an opportunity to create programs tailored to Colorado's unique needs.
- The Assumable Waters Subcommittee published its final report in 2017, and in 2018, the Department of the Army issued a memorandum to the USACE with guidance to adopt the majority's recommendations. EPA will issue a notice of proposed rulemaking in April 2020 and will issue a final rule in April 2021.
- Questions that remain that the EPA will have to address in their rulemaking decision include partial assumption (i.e., can state partially assume waters), alignment with existing EPA and USACE policies, funding, permit review waivers, the role of state agencies for projects requiring other federal approval, permitting exemptions, and Tulloch considerations.
- With the upcoming rulemaking process, Colorado should consider providing comments and asking questions to help the state understand how new rules will and could impact Colorado. Colorado should also consider reassessing the costs and benefits of state assumption based on the Subcommittee's recommendations.

Meeting participants asked several clarifying questions about the state assumption of Section 404. Questions are indicated in italics with corresponding answers in plain text.

What is the likelihood that the EPA will adopt these rules and regulations?

It is difficult to imagine the EPA not adopting the recommendations of the Subcommittee. State governments also support the proposed recommendations.

How would states be funded to assume Section 404 permitting responsibilities?

There is currently federal funding available to assist states in developing a Section 404 program, but there is not federal funding available to sustain a program. Funding is one of the largest barriers to state assumption, and Congress would have to authorize funding for it.

If the state assumes Section 404 authorities, would state authorities need to address water quality certification under Section 401 of the Clean Water Act for Section 404 permits?

If the state assumes Section 404 authority, Section 404 permitting would not trigger Section 401 water certification. However, the state would need to have another process to make sure a project complies with the state's water quality plan under Section 401.

PRESENTATION REFLECTIONS

Russ George, IBCC Director of Compact Negotiations, shared reflections from the three presentations. His comments are summarized below.

• The information on state assumption is timely if roundtables are interested in sending comments during the public commenting period on EPA's rulemaking decision. There is also

an opportunity for the roundtables to inform how the state will respond during the public commenting period.

- There are similarities to be made between the Colorado River, the Rio Grande, and other rivers, like the Republican River. It is important to learn how different river basins are managing their water resources, and there are many lessons to take from the Rio Grande River Basin. The producers and water users of the Rio Grande have long worked with the State Engineer's Office to develop a system of self-government. It is likely that the federal government in some form will need to provide funding to the state and basin roundtables, so understanding how the federal government participates and funds the program in the Rio Grande is essential.
- The Upper Colorado ATM pilot project is a good example of understanding what demand management means for local communities. The studies and research that will come from the pilot project will be helpful and serve as a reminder that the solutions to some of the large water issues are down on the ground in communities.

DEMAND MANAGEMENT BASIN FEEDBACK

Russ George, IBCC Director of Compact Negotiations, discussed basin feedback on the demand management program. His comments are summarized below.

- The IBCC is designed to listen and incorporate feedback from the basin roundtables. Russ George said that it is one of his joys to attend basin roundtable meetings and learn from them.
- The basin roundtables take seriously that they are a part of the State of Colorado, but there are concerns that distances between Denver and some of the basin roundtables present challenges.
- Demand management is complex, and it is a struggle to understand how to manage it and what is expected from the basin roundtables to help develop a potential program.
- There is worry that a potential demand management program will focus on benefitting Denver and the Front Range and that demand management is a top-down program. The only way that the state involves itself in demand management is by providing staff capacity. The CWCB as an organization is designed to involve citizens, and the representation at the IBCC meeting today demonstrates this commitment to citizen involvement.
- The intention is for Colorado citizens and those in the basin roundtables and demand management workgroups to make choices about what demand management could be and what are potential next steps.
- There is interest in talking about forest health. The US Forest Service (USFS) and National Wild Turkey Federation (NWTF) have partnered under the Rocky Mountain Restoration Initiative to advance forest health and its relationship with water management. There is also an interest in discussing phreatophytes and what the most recent science says about the relationship between phreatophytes and water quantity.
- All groups across Colorado working together may be able to develop solutions for the water issues in Colorado; it is important to continue to think about tackling water issues in cooperation with one another.

COLORADO WEATHER MODIFICATION UPDATE

Andrew Rickert, CWCB Weather Modification Program Manager, provided an update on Colorado's weather modification program. His presentation is summarized below.

• The purpose of the presentation is to give an overview of the state's cloud seeding program rather than go into the science of cloud seeding.

- In Colorado, there are eight permitted seeding programs: the North Platte program (the most recently approved program with aerial seeding only), the Central Colorado Rocky Mountain program, the Vail/Beaver Creek program (the oldest program), the Upper Gunnison River Basin program, the Grand Mesa program, the Western San Juan Mountains program, the Eastern San Juan Mountains program, and the West Dolores and Telluride Resort Ski Area Program.
- The total funding for the Colorado weather modification program is \$1.2 million a year. The State of Colorado spends \$175,000 per year, local Colorado sources provide \$590,000 a year, and the lower basin states provide \$450,000 per year. The funding is used primarily to maintain and operate cloud seeding equipment.
- The Desert Research Institute operates some of the remote cloud seeding equipment.
- The CWCB has recently installed a radiometer in Ohio City in the Gunnison Basin, located at approximately 9,000 feet in elevation. The radiometer can identify liquid water in the cloud to inform cloud seeding practices.
- The CWCB issued permits for aerial cloud seeding over the Never Summer Mountains in Jackson County, Colorado. The permitted group has completed eight flights already in 2020, which is an increase from three flights in 2019.
- The CWCB is also conducting a study on the Indian Peaks in collaboration with the Desert Research Institute. They are using plume dispersion models to identify places to locate cloud seeders on the east and west side of the Indian Peaks.
- Looking ahead, the CWCB will look to replace manual generators with remote generators. Remote generators can be operated from anywhere, are more efficient, and deliver more silver iodide into the clouds. It also does not require farmers and landowners to turn on the generators.
- The CWCB is looking to install more ice detectors and radiometers to collect real time observations of liquid in the cloud. They are also conducting more plume dispersion modeling to verify that they are placing seeders in the correct and most effective locations.

Meeting participants asked several clarifying questions about the CWCB's weather modification program. Questions are indicated in italics with corresponding answers in plain text.

How close to saturation is Colorado with its cloud seeding program?

Cloud seeding generators need to be high enough in elevation to send silver iodide into the clouds, but it is difficult to determine saturation as each storm cloud is different. On average, the cloud seeding takes less than 1% of the water vapor from a cloud.

How many more generators can be placed in Colorado and still be cost-effective?

It is difficult to determine. There are more places in Colorado to conduct cloud seeding programs, but the exact number of places is uncertain.

DEMAND MANAGEMENT FEASIBILITY INVESTIGATION UPDATE

Amy Ostdiek, Federal, Interstate, and Water Information Section Deputy Chief, provided an update on the demand management feasibility investigation. Her comments are summarized below.

- Demand management is just one potential tool in a toolkit, and it is not certain whether the CWCB will even set up a demand management program. It is useful to have a holistic view of demand management and how it fits into other discussions.
- The goal of the demand management workgroups is to identify the threshold issues associated with a potential demand management program.

- There are eight demand management workgroups: law and policy, monitoring and verification, water rights administration and accounting, environmental considerations, economic considerations, funding, education and outreach, and agricultural impacts.
- The demand management workgroups are halfway through the work of the 2019 Demand Management Workplan. There are common themes coming forward from the demand management workgroup discussions.
- One theme is that workgroup participants do not want to reinvent the wheel, especially when there is already work being accomplished in developing and administering voluntary, compensated, and temporary programs. Consultants will be conducting a literature review with guidance from CWCB staff to gather information on similar programs and efforts.
- Another common theme is related to the challenge of defining terms, particularly around distinguishing curtailment (involuntary) from a voluntary, proactive demand management program.
- Demand management workgroups are discussing how to define and consider equity in a potential demand management program, and they are identifying and addressing data gaps where more research may be necessary.
- Workgroups are discussing how to identify the parameters of a potential demand management program. Establishing parameters could be helpful in providing a structure to the conversations moving forward.
- There is a desire within the workgroups to address cross-cutting issues and to bring together different workgroups to learn from each other and expand the conversation.
- Demand management workgroups are discussing how to create a program that would be a net-positive for the state; the workgroups are in the stage of assessing whether a demand management makes sense for Colorado communities. It is important to address any negative impacts to develop a net-positive program.
- CWCB staff are hosting workshops and engaging in education and outreach efforts to reach those who are not normally involved in the demand management conversation, including a workshop at Colorado Water Congress. This is an important and complicated issue, and we understand the need to take a slow and methodical approach.
- There are multiple ways to become engaged. There is a demand management email address (<u>demandmanagement@state.co.us</u>). The CWCB website also has information on the agendas and report-outs from all workgroup meetings and on upcoming demand management workgroup meetings, which are open to the public and have a public commenting period.
- Each of the Upper Basin states are in different stages of conducting their own demand management feasibility investigations. Each Upper Basin state will have to decide whether they want to pursue a demand management program, and if so, there will need to be coordination among the Upper Basin states on demand management issues.
- There will be a report on the demand management feasibility investigation to the CWCB Board around June 2020 to consider next steps.

COLORADO COMPACT ADMINISTRATION PRESENTATION

Kevin Rein, State Engineer of the Division of Water Resources, presented on the Colorado Compact administration in the Colorado River Basin. His presentation is summarized below.

• There are many questions and comments coming to the State Engineer's Office about how water rights would work under curtailment and that it is not possible to move forward on demand management without knowing what curtailment looks like. It is difficult for the State Engineer's Office to answer these questions because there is uncertainty about what a Colorado Compact Call would look like.

- There are water supply challenges under the Colorado River Compact. The hydrology of the Colorado River does not align with the quantity of water that is required to deliver to downstream states. Additionally, the future of the Colorado River is uncertain as the Colorado River Basin enters into its nineteenth year of drought, which is expected to continue.
- On the demand side, there is growing demand for water from the Lower and Upper Basin states. There is a structural water deficit associated with the 2007 guidelines for operating Lake Mead and Lake Powell.
- With growing demand and not enough supply, it is important for states to consider what a Compact Call compliance situation may look like. There is not an existing blueprint for the situation, but there are questions to ask to consider what a blueprint may look like.
- It is important to talk about "Compact administration" rather than "Compact curtailment." A discussion only about curtailment assumes a situation in which Colorado is out of compliance, the State Engineers need only to curtail water use according to priority of appropriation, and then Colorado will be in compliance again. The actual course of action is more complex and requires the State Engineer's Office to make sure they are well-informed, precisely implementing a program, and addressing legal issues.
- The Colorado River Compact requires the Upper Basin states to deliver enough water so that the flow of the River at Lee Ferry will not be depleted below an aggregate of 75 million acre-feet for any period of ten consecutive years. If curtailment becomes necessary to maintain these flows, the Upper Colorado River Compact says that the Upper Colorado River Commission (UCRC) will decide what needs to be delivered in terms of timing and amount. Each individual state would then need to figure out how to comply with those curtailment orders.
- "Compact administration" is a more multi-faceted and holistic term and accounts for the direction provided by the UCRC. The term better describes the process by which Colorado will work to protect Colorado's water rights, minimize reduction in use, and maintain compliance.
- The State Engineer's Office administers the La Plata River Compact by curtailing diversions based on whether the river has reached a certain flow (i.e., curtail all water diversions if the flow is at 120 cubic feet per second or less at a certain gauge). The Colorado River Compact is more complex because it is not triggered until the flow of the Colorado river falls below an aggregate of 75 million acre-feet for any period of ten consecutive years at Lee Ferry, at which point the Upper Basin states need to plan how they will maintain compliance.
- Compact Administration is influenced by several factors. The first factor assumes the potential that the UCRC, including Colorado, would need to take action to maintain compliance, which would affect reservoir operations.
- During the ten years leading up to 2018, the Upper Basin State's delivered 93 million acrefeet of water, and from 2015 to 2018, they delivered nine million acre-feet on average. This puts the Upper Basin states well above their required deliveries.
- The current flow projections from 2019 to 2021, which are between eight million and nine million acre-feet per year, keep the Upper Basin states in compliance.
- From 2022 to 2025, the flow projections are slightly above seven million acre-feet at Lee Ferry, which keeps the Upper Basin states in compliance with the 2007 guidelines that require a minimum release of seven million acre-feet per year. These projections do not include the Mexico "obligation."
- These conservative projections until 2025 estimate that the Upper Basin states will remain in compliance with the Colorado River Compact until at the earliest 2026.

- The second factor that influences Compact administration is the role of the UCRC who determines the need for curtailment. Colorado is limited in their actions and decision-making by the Upper Colorado River Basin Compact, and so Colorado does not have the authority to implement anticipatory curtailment. The State Engineer's Office also does not want to curtail people's water use needlessly before a Compact Call because it is not certain when and how much water will be needed to comply with a Compact Call.
- The third factor that influences administration is the need to develop an approach to Compact Administration. There are two alternative approaches for Compact administration:
 1) administer the Compact based on the prior appropriation system or 2) collect data and propagate rules based on the data.
- The first approach of administering the Compact Call through prior appropriation may not be enough to comply with a Compact Call. The State Engineer's Office would need to guess where and from what date to curtail water use without having information. This approach is poorly formed and can lead to over or under curtailing water use.
- The second approach is to use available information, data, and rules to administer a Compact Call. Developing an approach with more information, data, and rules leads to more informed and precise administration. It also allows for there to be a stakeholder involvement component associated with rulemaking, the development of multiple options for administration, and the acknowledgment of legal concerns.
- Data is critical. For example, the information on how water rights users use Colorado River water in terms of diversion and consumption on a basin-by-basin basis is not currently available in one place. Collecting and analyzing this data will allow the State Engineer's Office to be more precise when developing Compact administration rules.
- Sources of information that can be used to develop a better approach for administration include information from the Colorado River Basin states renegotiation of the 2007 interim guidelines, the Compact Compliance Study, and the demand management workgroups.
- It may be time to consider measurement rules for collecting data. Measurement rules would entail defining the need for measurement rules, an authority to oversee administration of the measurement rules, the scope of action, and a methodology for how to measure, calibrate data, develop reports, etc.
- Developing other types of Compact Administration rules is important. Developing Compact Administration rules will allow Coloradoans to address the difficult aspects of implementation in a contemplative and stakeholder-involved way before they have to be implemented.
- Potential rules could be developed to define the process of Compact Administration, acknowledge the role of the UCRC in setting compliance needs, define a monitoring methodology, set guidance on strict application of priority, set guidance for enforcement, consider how F"Present Perfected Rights" influences administration, and develop mechanisms for allowing diversion by water rights that would otherwise be curtailed.
- Previous lessons following the passing of the Water Rights Determination and Administration Act in 1969 when the State Engineer's Office had to consider the connection between surface water and groundwater demonstrated that curtailing water use is not just a matter of priority administration.
- The mechanisms for curtailment in the Rio Grande Basin demonstrate the types of rules that could be put into place if appropriate.
- With clear direction from the UCRC, reliable data available, and Compact Administration Rules (if developed) in hand, the State Engineer's Office could maintain Colorado compliance without overdelivering water.

- Developing the Compact administration plan at this exact time may not be helpful because too much information is pending, but it is necessary now to understand the scope of Compact administration and how it will impact other ongoing work, like demand management.
- The State Engineer's Office is currently starting the discussion around developing basin measurement rules, coordinating with the CWCB and UCRC, and refining their understanding on the potential scope of Compact administration, the tools available, and scope and process for rulemaking.
- Kevin Rein laid out a potential Compact administration scenario, starting with the UCRC determining curtailment is necessary and setting a timeline and amount of water needed for Colorado to reach their obligation. The State Engineer's Office has information on the status of Colorado River Storage Project Act (CRSPA) Reservoirs and present perfected rights. They then consult the already developed rules for consideration of priority and the potential availability of demand management water. The administration of the Compact Call is then guided by the outcomes of water use studies so that they can deliver precise, informed, and legally sound administration (which may include curtailment) that is targeted toward compliance without over-delivery.

Meeting participants asked several clarifying questions about the Colorado River Compact administration presentation. Questions are indicated in italics with corresponding answers in plain text.

It is difficult to explain why Coloradoans should consider demand management if they do not know the alternative of Compact administration. It is important to start exploring the mechanisms of Compact administration publicly and transparently to make water users care. How can these mechanisms be explored, and what do those mechanisms potentially look like?

Demand management is one tool in the toolbox. Demand management is similar to the concept of augmentation plans in which a user out of priority might have access to augmentation water. The demand management workgroups may identify ways to voluntarily change water rights to allow them to be stored differently so that junior appropriators can have augmentation plans that are consistent with the Compact and demand management. The mechanisms are confusing and complex and need to be explored further.

What is missing from the 1969 Water Rights Determination and Administration Act that prevents the State Engineer's Office from implementing programs to manage out-of-priority use? The water rights administration and accounting workgroup are discussing this topic, and Kevin Rein did not want to answer this question until the demand management workgroup has had a chance to develop their own recommendations.

It is likely that attorneys will take over the whole process once the UCRC determines that Colorado owes water. The State Engineer's Office will have to decide how to deliver that water, but then they immediately will face many lawsuits. How does the State Engineer's Office plan to handle the legal issues?

The UCRC is facing many legal questions, and there will likely be lawsuits. In Colorado, if there is a stakeholder process to develop Compact administration rules, then the State Engineer's Office will be able to point to propagated rules that went through that process before arriving in the courtroom. Having a contemplative approach and data will be helpful when addressing legal challenges.

Polling Comments

Following Kevin Rein's presentation, the audience provided comments through an online polling system in response to the statement "Submit any thoughts you'd like to make sure the State Engineer is considering." The comments are summarized below.

- What is the timeframe for developing Compact administration rules?
- The state moving forward on measurement rules on the Colorado River is a good step forward.

BASIN PLANS, WATER SUPPLY RESERVE FUNDS (WSRF), AND PUBLIC EDUCATION, PARTICIPATION, AND OUTREACH (PEPO) UPDATE

Greg Johnson, CWCB Interstate, Federal, and Water Information Section Chief, shared updates on the Basin Implementation Plans (BIPs), WSRF, and PEPO. His comments are summarized below.

- BIP updates are in motion. The CWCB released a request for proposals (RFPs) for consultants in each basin to help with the updates. The RFP closed at the end of February. Each basin has at least one submitted proposal, and some basins have several proposals. They will decide by the end of the month on which proposals they will select, and the CWCB will host a workshop in late April or early May to start the BIP update process.
- There is a WSRF group that is advising the CWCB on how to improve the WSRF grant application criteria and guidelines. The group has been on hold because of an internal CWCB project in which the CWCB is developing a new grant portal website to improve the process of applying for grants and loans. The WSRF will be meeting in the near future to begin WSRF conversations.
- The PEPO workgroup helps facilitate communication between the CWCB, Basin Roundtables, and the public. There is a conversation about how to best reengage PEPO with the work of the IBCC. There is particular interest in how the Statewide Water Education Action Plan connects to the BIP updates. PEPO will be working on implementing phase II of the Statewide Water Education Action Plan.

IBCC EQUITY DISCUSSION RECAP

Russ Sands, CWCB Water Supply Planning Section Chief, provided a recap of previous IBCC equity discussions. His comments are summarized below.

- In October 2019, the IBCC had a robust discussion about equity in a demand management program. One key theme identified from the conversation was the role that mistrust was playing in a potential demand management program. The spirit of the conversations around equity is to build trust, better understand each other's point of view, and to listen to each other. At the heart of the equity conversation is the importance of identifying what matters to people, their communities, and their area.
- Equity is subjective, and IBCC members are split on whether they think a demand management program can ever be equitable.
- As the conversation moves forward, it is important to ask questions about what is beyond our control, what is important to you, how is success defined and achieved, and what may be the unintended consequences of a demand management program? It may be possible to create a program that is ostensibly equitable but may end up creating inequity.

IBCC AND DEMAND MANAGEMENT WORKGROUP EQUITY BREAKOUT SESSION

IBCC and demand management workgroup members broke into eight small groups to discuss eight different demand management scenarios. Participants were asked to think about the fairness of the program scenario, what issues made the scenario more or less equitable, and how could participants know that equity was achieved and monitor it long-term. Each small group was given

one scenario to discuss. They then reported out their discussions to the full group. The report out from each of the small groups along with their scenario are summarized below.

Scenario 1: A demand management program has equal participants from the east slope and west slope

- The small group discussed how the east and west slope could share costs under this demand management scenario.
- The success of a demand management program that has equal participants from the east slope and west slope would depend on the volume of water required; it would be more difficult to incur similar costs between the east slope and west slope with a larger water delivery requirement.
- It would also be important to quantify equity around the value of water. Water is valued differently on the east slope than on the west slope.
- There would also be a different timeline for impact if there was equal participation between the east and west slope. For example, a municipality may need a month to curb water use, but a farmer would need six months or longer to plan for reduced water use.
- Community impacts also might be felt differently; a municipality might have additional storage, but a farmer might be hurt more quickly.

Scenario 2: A demand management program has 30 slots open to participants in each basin

- The small group discussed what "30 slots" means and who is a "participant." Thirty slots seems to be an arbitrary number. For example, a participant in the demand management program may choose to reduce water use on half an acre and count that as a "slot."
- The scenario does not give much information on how much water comes from a participant and what the impacts on the community would be. There should be sideboards to what it means to be a participant and a definition of the types of users and combination of users who can participate.
- One solution for this scenario could be to determine how much water is needed per year from each basin and then have the basins decide how to allocate it.
- Small group participants discussed a free market system, fairness to the community, and impacts of this type of program on property rights.

Scenario 3: A demand management program is open to anyone first come, first served until "X" volume is achieved

- The small group discussed what is the meaning of a voluntary program. A voluntary program may result in people joining a demand management program even when others in their region or basin do not want them to volunteer.
- They also discussed the relationship between equity and proportionality. There would need to be objective factors, such as percentage caps for different entities or regions, to achieve proportionality.
- A demand management program that is open on a first come, first served basis would not be an acceptable program because of the equity issues.

Scenario 4: No demand management program is created but people want to participate

- The small group discussed what Colorado looks like with and without a demand management program and which scenario would be less equitable.
- Not having a demand management program is equitable and follows an "it is what it is" attitude, but the consequences are that there would be a hodgepodge of substitute water

supply plans and augmentation plans across Colorado. For example, there could be 500 augmentation plans on the Colorado River system, which no one would want to manage.

• A state demand management program would require transparency to be equitable. For example, a group of investors could buy a property in hopes that there would be a demand management program, which would not be transparent or equitable.

Scenario 5: A demand management program is open to anyone but limits the number of participants by county

- The small group said they did not find the original scenario equitable, but they took the scenario and made changes to make it more equitable.
- Some counties have larger consumptive uses than other counties. A demand management program would need to look at an area, identify consumptive use in the counties, and then assign a percentage limit based on the quantity of consumptive use by acre-feet.
- There would need to be a duration of time for potential enrollees to learn about the program to prevent only one or two plugged-in users from joining the program. Conservation organizations could assist in supporting users that would otherwise not be engaged.
- There would need to be a time limit for program enrollees, so they do not stay in the program permanently.
- There would need to be criteria to evaluate ancillary benefits of a program. There would also need to be criteria or an evaluation process to shift focus to different areas throughout a county depending on how much water different areas use. The location of the enrollees and how that impacts water use is the specific issue that can make the program greater or less equitable.
- The primary metric to determine whether the demand management program under this scenario is equitable is whether an adequate amount of people enrolled based on the county's consumptive use.

Scenario 6: A demand management program is created with the goal of enrolling "proportional" participation of eligible water use sectors (e.g., Agriculture, Municipal, Energy)

- The small group discussed proportionality and what it means. Proportionality could be based on geography or amount of water.
- The most sensible solution was for the sectors to decide how much water they can give to a demand management program because they are the most aware of their needs.
- There may be lessons to learn from the Platte River Recovery Implementation Program (PRRIP), in which three states decided how much water they could give to the program.
- The small group discussed that they would not want to see the water allocated disproportionally by geography. There should be a cap on water rights based on geography to avoid negative consequences to local communities and governments. Crowley County serves as an example in which many sold their water rights, and the economy collapsed.

Scenario 7: A demand management program is created where participation is moderated to minimize significant socio-economic impacts through prescriptive measures (e.g., acreage enrollment limitation, 3 out of 10, etc.)

- The small groups discussed that there needs to be a way to protect proportionality between how much demand management water is coming from each basin to ensure that no one basin takes on too much of the burden.
- One way to move towards proportionality is for people to allocate their water based on the degree of their depletion of the Colorado River.

- The program would have to be voluntary, but there would have to be an entity to make sure there is not too much water coming from any one basin. The state could take on the role to manage and monitor the program and put out requests for voluntary participation.
- There are remaining questions about how to define and measure socio-economic impact.

Scenario 8: A demand management program that provides differing payments to participants depending upon certain criteria

- A demand management program with a fixed payment system would not be equitable as it would incentivize the drying of some areas and not others. A complete free market system may also not be equitable for the same reason.
- There would need to be a guided market, but the small group did not come to an agreement on what the sideboards or criteria for a guided market could be. One option could be to have a quota by basin, and then within that quota, there could be a defined range of potential monetary values to ensure that the price of water is not at its lowest or highest value.
- It is uncertain how to manage interest if one area is more interested in contributing water than others. There would need to be criteria to manage interest, but the small group did not determine what those criteria could be.

IBCC AND DEMAND MANAGEMENT WORKGROUP EQUITY BREAKOUT SESSION DISCUSSION

Meeting participants discussed the report outs from the equity breakout session. Their comments are summarized below.

- Equity should not serve as a barrier to implementing a demand management program, and it should not be used as a way to prevent water from getting to Lake Powell.
- A common theme among the groups was a discussion of a free market versus guided market versus government program for implementing demand management.
- Another common theme was that no two water rights are alike. There are remaining questions about how to analyze the value of water rights and the socioeconomic impacts of a demand management program. There may be a need for a ditch wide analysis of socioeconomic impacts.
- The value of water can be difficult to quantify because the value of water goes beyond its transactional value. The value of water also comes from the economic activities and recreation tourism it generates as well as from its social and aesthetic values.
- The term equity makes some people uncomfortable. Other terms, like shared responsibility, are less loaded and may help to avoid polarization. The concept of shared responsibility changes the conversation to how citizens can help protect the state most effectively by providing water to Lake Powell.
- There is not one solution that will solve everything; there will likely need to be a combination of factors and sideboards that go into a program. There should be a list of all the factors that need to go into an assessment of a program.
- One common theme is that each group discussed concerns with disproportionally affecting different geographic areas within and among the basins. Fairness is related to proportionality, and proportionality by basin and geography is important. Fairness is also related to proportional impacts across the state.
- There are two different types of equity: equity of impact and equity of opportunity. Equity of impact is making sure that not one basin takes on the burden of demand management. Equity of opportunity is making sure that the benefits of a demand management program are distributed more evenly and that not only a couple of water rights users benefit from the program.

- Having some type of criteria was a common discussion topic, including determining who develops the criteria and who evaluates programs and projects using the criteria. Some participants said that local grassroot organizations or basin roundtables could develop criteria and evaluate projects. Other tables discussed that sectors could develop criteria and decide how to allocate resources, but there is still an important task of identifying who speaks for a certain sector.
- Market mechanisms and finance could drive a demand management program with caps by geographic locations. Different sectors could then decide how much to contribute to a program.
- There are remaining questions about how to decide who participates, who defines the terminology, who decides how to measure socioeconomic impact, and whether a voluntary program is actually voluntary if there are pressures from the community.

CLOSING REMARKS

Russ George, IBCC Director of Compact Negotiations, gave closing remarks for the meeting. His comments are summarized below.

- There are many different factors that are involved in developing an equitable demand management program. There are key factors to pull out of today's discussion.
- There is a need to generate options and then develop metrics to measure and explore those options. Tomorrow's meeting will focus on how other factors beyond equity impact and influence each other in a potential demand management program.
- The subject matter lends itself to being overcomplicated. It is important to think deeply about the issues but to not overthink it. At some point, it will be helpful to simplify, develop a structure, and begin to make choices as well as decide who gets to make those choices.
- It is important that any solution is put into statute, but the legislature does its best work when the collaborative group has worked hard to develop a balanced and fair solution.
- There are already decision-making structures within the basin roundtables to evaluate any package of solutions that comes from the demand management workgroups.