

**Interbasin Compact Committee Basin Roundtables  
Rio Grande Interbasin Roundtable**

***MINUTES***

**March 11, 2014**

**Attending:** Kevin Terry, Tony Holcomb, Mac McFadden, Anne Steinhage, Ruth Heide, Eugene Jacquez, Nolan Doesken, Tom McCracken, Ashley Rust, Alicia Kiroshita, Kyle Knipper, John Moffsker, Megan Estep, Liza Marron, Andrea Rue, Brian Rue, Keith Holland, Matthew E. Gallegos, Brenda Felmlee, Susan Walfry, Joseph B. Old Elk, Marvin Reynolds, Don Martinez, Charles Spielman, Stan Moyer, Hew Hallock, Ron Brink, Bea Ferrigno, Nicole Langley, Jacob Bernstein, Karla Shriver, Dale Wiescamp, Rio de la Vista, Steve Vandiver, Nathan Coombs, Travis Smith, Virgin F. Valdez, Cindy Medina, Erin Minks, Trudy and John Kretsinger, Marty Asplin, David Stiller, Charlotte Bobicki, Arista Hickman, Swaha, Dan Dallas, Lisa Carrico, Lawrence D. Gallegos, Larry Brown, Mike Gibson

**Introductions** – Chairman Mike Gibson welcomed a full house, with thanks to Nolan Doesken, State Climatologist for coming.

**Approval of Minutes of February 11, 2014** – Cindy Medina moved to approve as written; Charlie Spielman seconded; unanimous approval.

**Administrative Issues** – Mike ran through a draft schematic of the Roundtable Bylaws and handed out a copy of the Bylaws and a tentative list of members that he's working on. Mike will update us on the formal membership at the April meeting.

**Initial Project Preview: Trinchera Irrigation Company (TIC): WSRA Request - \$25,000 from Basin Account.** Superintendent Wayne Schwab gave a preview of this request for funding. TIC will conduct an underwater assessment and feasibility study of the outlet structures at Mountain Home Reservoir to determine the most favorable alternative for repairing, upgrading, or replacing the gates without emptying the reservoir or affecting the conservation pool of Colorado Parks and Wildlife. Rick Basagoitia of CPW and Kevin Terry of Trout Unlimited are advising this project.

**Update: "Rio Grande Basin Water Implementation Plan" Public Input – Tom Spezze / Kelly DiNatale Water Consultants.** Tom reviewed the extensive press and public outreach efforts of the Basin Implementation Plan, with compliments to Judy Lopez: 22 articles, 7 radio spots, many community meetings, a website being updated, the development of a Water 101 Handbook, plus engaging water leaders through Adams State University, plus a "town hall" meeting here tonight. He complimented this Basin for bringing in over \$9 Million in water project grants. Tom explained the function of the Steering Committee and listed the subcommittees and their work to develop Goals, Measurable Outcomes and Actions. A handout is available listing the 14 main goals. Arista explained she has developed the basin draft in relation to the CWCB/State plan. A draft of that outline and a draft of the document itself will be ready for the April Roundtable meeting. Next steps are to evaluate future water needs against future water supplies, develop an implementation plan including actions, projects and methods to meet goals. See [www.riograndewaterplan.com](http://www.riograndewaterplan.com) for more information or contact Tom at [tom@dinatalewater.com](mailto:tom@dinatalewater.com). Looking for input. Our deadline is July for having the RGBRT BIP to CWCB. Please submit your comments so the deadline can be met.

**“Colorado’s Climate” – Dr. Nolan Doesken, State Climatologist:** Nolan gave a fast paced and fascinating review of climate monitoring and the specifics of climate in the Rio Grande Basin. He put our recent climate patterns into historical perspective and described the state climate program and the work of the Colorado State University Agricultural Extension, the USDA's Agricultural Research Service Water Management Unit and Colorado Climate Center at Colorado State University. The first “government” weather station in Colorado was in Fort Massachusetts. The CSU campus weather station started monitoring in 1783 (!) and has been doing robust and continued statewide monitoring since the 1880s. The mission is to conduct climate monitoring (tracking) and climate research and to provide climate service (data analysis, climate education & outreach). There used to be a national weather service station in the Valley but now there is a viable volunteer service – CoCoRaHS. Nolan demonstrated a rain gauge and encouraged folks to join this nationwide volunteer network of weather watchers at <http://www.cocorahs.org/> Nolan’s program was thorough and fascinating, with too much information to adequately summarize here. Nolan let us know he is pleased to answer weather/climate questions. <http://www.coagmet.com/>

**"Projected Hydrology of the Upper Rio Grande Basin in the 21st Century" - Dagmar Llewellyn, Hydrologist, Bureau of Reclamation, Albuquerque Area Office.** Dr. Llewellyn’s presentation was from her published report, “Reclamation - Managing Water in the West: Projected Impacts of Climate Change on Water Resources in the Upper Rio Grande Basin.” She explained how meteorological global processes can dictate our weather. Since the 1970s we started seeing average temperatures rising and higher rates of evapotranspiration. “We are seeing significant increases in temperature and a lack of available precipitation.” We have been in a cold period within the past 500 million years, with a “Phanerozoic” climate change, moving from the past 10,000 years of extremely stable climate – to this point where humans started changing climate. We can no longer assume what a 100 year event is. She explained the difference between climate variability and climate change; between predictions and projections.

Federal budget cuts to SNOTEL programs threaten stream gauge monitoring capability, and efforts are being made to maintain these. Physicists and climate scientists worldwide understand the data and have reached consensus, supported by recent studies on tree rings and ice cores demonstrating that CO<sup>2</sup> and temperature track together. She reviewed various emission scenarios and climate model runs projected over the next century, with and without the inclusion of greenhouse gases. Many studies have examined the effects of natural forces (volcanic and solar) and anthropogenic (human-originating) forces. She discussed effects of volcanic, solar, greenhouse gases, sulfates and ozone and sharply changing trends in the past 10,000 years.

Effects on Colorado and on our Basin’s water – The Colorado River system is presently enduring its 10th year in a drought that began in 2000, according to a CU-Boulder Cooperative Institute for Research in Environmental Sciences study. Fortunately, the Colorado River system entered the drought with the reservoirs at approximately 95 percent of capacity, but today that system is at 59 percent of capacity. The research team examined the future vulnerability of the system to water supply variability coupled with projected changes in water demand and found that through 2026, the risk of fully depleting reservoir storage in any given year remains below 10 percent under any scenario of climate fluctuation or management alternative. During this period, the reservoir storage could even recover from its current low level, according to the researchers. But if climate change results in a 10 percent reduction in the Colorado River's average stream flow, as some recent studies predict, the chances of fully depleting reservoir storage will exceed 25 percent by 2057. If climate change results in a 20 percent reduction, the chances of fully depleting reservoir storage will exceed 50 percent by 2057.

What can we do? Basins need to assess their storage capabilities and develop adaptive strategies which increase storage and reduce the risk of floods. Many studies have examined the impacts of annual mean temperature changes on water deliveries, flows, and reservoir levels in the West. Here in the Rio Grande Basin the chart shows “quite significant” temperature change to 2070, with basin-distributed snow projections falling.

Projected impacts to flow timing on the Rio Grande, from near Lobatos to Elephant Butte, show decreased annual runoff throughout the Basin, indicating that future changes and variability will become more common. We can expect more severe weather, longer droughts, more floods, and summer monsoons here may intensify. “Your infrastructure currently might not be the best for these conditions.” Dr. Llewellyn reported that “manageable water supply will decline; water supplies will be subject to increased variability and uncertainty; with changes in spatial and temporal distribution; feedbacks can lead to cascading impacts. Everything is confounded by all of the other things that humans do.” Next steps: develop adaptation and mitigation strategies. “If you’re not part of the solution you’re part of the precipitate!”

**“Scenario Planning & Adaptive Strategies”– Colorado Water Planning” – Jacob Bernstein, CWCB:** Jacob described the five scenarios of the Statewide Water Supply Initiative (SWSI). He summarized the Municipal and Industrial (M&I) portfolios from basin roundtables, showing low, medium and high demands and reviewed the Identified Projects and Processes (IPPs) and showed that the No/Low Regrets portfolio was better than the Status Quo portfolio if we are to meet medium or high demands. Those actions will be harder, but the point is that we need to be successful now with our IPPS. Jacob demonstrated a draft adaptive management plan with successful no/low regrets and traced the plan through water demands, water supplies, social values and economy portfolios by 2050.

What to do? To think in a scenario-planning framework, we need to use some of the newest climate change scenarios. We need to be successful with our IPPs; avoid agricultural dry-up and the urbanization of agricultural lands; get prepared for higher demand actions by creating more storage and flexible infrastructure; develop actions for resource use at different levels; and, if demands are lower, we need to continue the course of our No/Low Regrets decisions.

[The meeting was running late so remaining reports were very brief]

**Report from Rio Grande Watershed Emergency Action Coordination Team (RWEACT)** Tom Spezze gave a quick update and thanked the work of the Outreach/Education subcommittee.

**Colorado Division of Water Resources - Craig Cotten, Division #3 Engineer:** Snow Pack & Water Content report shows that we’re up to 87% of normal snowpack now, “about like 2011, but we still need more moisture.” The Rio Grande flows are predicted at 80% of average, a little better than last year. Irrigation season will start April 1<sup>st</sup> for most of the Basin. The Well Rules Advisory Committee meets tomorrow at the Inn of the Rio Grande and the Compact Commission will be meet this year in Santa Fe on March 20, 2014.

**Next Meeting: April 8, 2014  
Conference Room, San Luis Valley Water Conservancy District  
623 Fourth Street, Alamosa, Alamosa, Colorado**