

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

August 9, 2011 -- 2:00 to 5:00 P.M.

M I N U T E S

Attending: Lewis H. Entz, Ronald Peterson, Larry Martinez, Phil Reinholtz, Theresa Corless, Cindy Medina, Travis Smith, Jeanna Paluzzi, Rodney Smith, Don Thompson, Nicole Langley, Mike Gibson, Diana McGinn, Ralph Curtis, Judy Lopez, Matt Hardesty, Brenda Felmlee, Matt Hildner, Charles Spielman, Paul Robinson, Jay Yeager, Charlotte Bobicki, Mario Curto, Rio de la Vista, Ruth Heide, Erin Minks, Dale Wiescamp, Leon Moyer, Lawrence Gallegos, Gene Farish, Ed Vigil

Introductions: Chairman Mike Gibson welcomed all, and requested that quorum requirements be waived, since voting would only involve a modest request for funding from the Rio Grande Basin Fund of WSRA.

➤ **Approval of July 12, 2011 Minutes –**

Nicole Langley asked for help in identifying the person speaking about meter readings (on page 2 of the 7/12 Minutes). Members said it was Willie Hoffner. With this correction, **Rio de la Vista moved to approve the minutes. Paul Robertson seconded. Unanimous approval.**

➤ **Flaming Gorge Water Study –**

Mike Gibson explained that a study is being conducted by a task force which is considering the potential to transfer water through a pipeline from the Green River to the Front Range, as a means of helping meet Colorado's future demands for water. Other roundtables are contributing funds to support this study, so perhaps the RGBRT should have a voice in that discussion. As the merits and the process of the Flaming Gorge proposition are studied, the nexus to the Rio Grande Basin is that as the Front Range finds other sources of water, they will be less likely to come knocking on the ag-transfer door of the RG basin. Mike asked members to consider a request for \$5,000 to support this task force "so we can have a place at the table."

Discussion: Paul Robertson, speaking for The Nature Conservancy, asked whether that task force was "the right table," to be conducting this study. He said he had spoken to TNC water people in Boulder. Few people knew about it and no environmental groups had attended the Task Force's last meeting. "We feel this is a group of individuals. It should be pursued by an entity like CWCB. We don't want to put a positive spin on this. We think this is being done inappropriately."

Travis explained that the Arkansas River Basin Roundtable initially put funds up to do the Flaming Gorge analysis. They interviewed 70-80 water leaders around the state and the conclusion was a recommendation to investigate the issue. Some environmental groups were invited but they did not come. Travis addressed the issue of whether the task force approach was appropriate, saying that the Arkansas River Basin Roundtable did the initial work and decided to form the task force. Being there does not imply taking a position. **Rio de la Vista:** Whether it's the roundtables or not, supporting this study does not mean we're for or against any conclusion. Other projects may be discussed and we do have an interest. **Charlie Spielman and Greg Higel** asked for clarification as to the role of Front Range water providers. Various

groups. We don't have the details. **Rio:** We can support with money without taking a position. **Judy:** being at the table helps us stay proactive in the process.

VOTE: **Lewis Entz** moved to approve \$5,000 funding from WSRA Basin funds to support the Flaming Gorge Study of piping water from the Green River to the Front Range. **Judy** seconded the motion. Unanimous approval.

Rep Vigil has been appointed to the Colorado Water Committee to represent the Rio Grande Basin on the Green River project. He will go to the next meeting in Steamboat Springs. He reported that John Stulp [Colorado Commissioner of Agriculture] does not believe the shortage of water supply will have to be met by completely by agricultural transfers. "That might be part of the solution but not the whole solution. We support looking at various projects in an attempt to address the municipal shortfall." John Stulp sees "a four-legged stool" which includes conservation, projects in the pipeline, and potential new projects. **Rep Vigil will send a letter based on this vote.**

➤ **Division of Water Resources, Division 3, Matt Hardesty, Assistant Division Engineer Report –**

The ten day report for the Conejos and Rio Grande for the period ending July 27 is attached to these minutes. A special meeting of the Rio Grande Compact Commission will tentatively be held August 19 at 10 AM in Albuquerque to request a loan of water for Texas from Colorado and New Mexico. This has not happened since the 1950s. Call DWR to confirm date of this meeting. The State Engineer is still working on refinements of the Groundwater Model (for use by the groundwater subdistricts), hoping to put out a date for completion in October. Also contact DWR for rescheduling of the September and October meetings and the Supreme Court Hearing for Subdistrict #1. **Travis:** There will be a meeting tomorrow with streamflow forecasters on how to improve forecasts. We might have some more money available from CWCB for refining stream flow projections.

➤ **Update on Reservoir Rehabilitation Studies for the Santa Maria Reservoir Company and Roundtable Tour of the Continental and Santa Maria Reservoirs on August 11th**

Ron Peterson invites the Roundtable to tour these reservoirs and to talk about findings of the ongoing engineering studies on the open ditch and at Continental. On August 22 they will meet with Kurt Russel and Matt Graven and Ed Toms to figure out some of the problems and proposed fixes. Travis asked Ron to talk about the conveyance, including the pipeline, the open ditch, and the siphon and the need to increase capacity through the steel pipe, which has lost about 2/3 of its capacity. Ron gave logistic details of the tour and urged all to come.

➤ **"Beetle Kill – Impacts to Our Forests and Watersheds" - Diana McGinn, USFS Forester, and Phil Reinholts, USFS Hydrologist**

Theresa Corless clarified the need for more information on beetlekill and the effects upon water. (Notes on the discussion follow) A detailed report on the Rio Grande national forest spruce beetle epidemic 2001-2010, the evolution and extent of the epidemic, including management options and what has been done and what actions are planned. Hydrology and beetle biology. The epidemic started with blowdowns in late 90s early 2000 and drought conditions. Trees stressed. Can't defend themselves against the beetle. Aerial surveys. Each

year they map new areas being affected by insects. Northern Colorado has lots of problems with the mountain pine beetle. Trees turn orange, whereas Spruce beetle kill looks faded. Mortality areas due to the spruce beetle, 2001-2004 - Weminuche terrible. 192,000 acres affected. Many additional areas from 2001-2010. Spruce/fir vegetation type over 500 acres of mature spruce stands. Spruce forests will eventually recover. 48% of spruce acres are in wilderness and backcountry. Lots of discussion. Questions about control. Sprays don't work because beetles inside they're inside the bark. Can't spray from air. Limited management options.

Lack of mill capacity to remove and process large acres of infested trees. Future management needs? Visitor and employee safety and Infrastructure at risk.

Phil Reinholtz spoke about potential hydrologic and other effects of the epidemic. Previous and present research. Amount and timing of water flows. Change in fire regime. Effects of physical/biological processes. Changes to wildlife habitat. Hydrologic effects of beetle kill not as significant as expected. Difficult to tease out beetle impacts v. dust on snow, residual live trees and understory vegetation and utilization of additional water. Climate change, long term changes. We must expect the unexpected – yes some basic hydrologic impacts can be inferred from previous studies... It's a unique time in forest evolution. Need a few more years to fully understand complexities -- Water quality effects, release of carbon and nitrogen through decaying wood. Nitrogen in soils, water chemistry and quality changes less than expected. No red flags. In the Million Fire, neither bark beetle infestation nor salvage logging had any detectable effects on the extent or severity of the fire. Increased risk of fire was attributed to drought. Effects to wildlife? Increase forage for elk, deer, and moose. For the woodpecker and other birds and small mammals that feed on spruce seeds, habitat quality may decline. For others that feed on grasses and forbs, may increase. Not a lot of research going on right now. Lots of past studies.

Discussion: Travis: Forest Service does lots of observing but not much on management. Perception that FS needs to actively be managing the forest. Questions about what's being done to harvest in the Upper Rio Grande. Presenters responded that big lumber sales in Creede. Also Black Mesa sale under analysis, but at this point just salvage. Other forces. Need for citizen involvement. Some areas we can't do anything about.

Paul: The Nature Conservancy has studied this. The total volume vastly overwhelms the capacity to respond. Difficulties of access. Reduced budget for forest service is far below what is needed.

Jeanna Paluzzi: The Governor's Energy Office is starting to work with forests on biomass. Mountain Valley Lumber is having problems. She asked about the need for wood for home heating and possible permits for personal use.

➤ **“How Does Colorado Determine the Mix of Solutions to its Long-Term Water Needs? Introduction to the Water Supply Future Portfolio and Trade-Off Tool” – Greg Johnson, CWCB**

Greg described a tool developed by CWCB which will make certain assumptions as to how to meet demand for municipal water. The RTs would run this model ourselves and from that be able to determine parameters as to how to meet the shortfall. One of the problems is we don't

know what other basins, or Denver Water or the City of Colorado Springs might have planned to meet some of that demand in the future. Question -- So how practical is it for CWCB to assume we have the time or the knowledge to be able to play with these models and to make sound judgments?

There might be a meeting of RTs to discuss as a group. People from different basins could review what's being planned. If there is a 600,000 AF shortfall, how would we plan to meet it? It's complex. Question: Where is CWCB going to lead us with this process?

Greg Johnson - brief overview of the tool. See how RTs might play with this tool and give us feedback. Three main purposes: helps people understand the tradeoffs. See the impacts to irrigated acres, conservation, etc.

Was designed first for IBCC to be able to see those tradeoffs. Second, to allow RTs to determine their preferences. Can use the tool to check assumptions. Third, getting into basin-specific details. Test our hunches against what's happening in the basin and help discussion at IBCC.

Governor requested a specific recommendation to address the future water shortfall in the State -- all of last year worked on meeting that request. Water conservation, agricultural transfers, nonconsumptive needs, water supply. At a statewide summit last March discussion was regarding this process. Got great feedback. It needs to be more a grass roots process. CWCB needs information from the RTs up. Greg stated that the RGBRT can give feedback on these big picture policy issues. This can allow RTs to define their vision for how to best meet the state's M&I Needs.

INPUTS

- Define demand levels in 2050 -- pick the relevant elements
- Define IPP success levels by basin and by project type
- Define conservation level and how much can be applied to the gap
- Define amount of new supply and agricultural transfer water, west/east slopes
- Define percent of water that can be reused (if desired)

OUTPUTS -- statewide, regional and basin specific portfolios; data table; statewide, regional and basin specific portfolios by water source.

Worksheets in the packet -- also documentation -- all available on the website -- full instruction manual. Feel free to download. Water supply future portfolio and trade-off tool. Greg went through the logic and operation of the model.

Travis -- we have the opportunity to participate.

Charlie -- the tool is based on the single basic assumption that water must be moved to where the people are -- I say why not look at moving the people to where the water is.

Judy -- At some point decisions will be made. Many different arguments. I need to understand. We need to take this exercise seriously.

Greg – To express the RT's position clearly. Welcome to get into the details. Can bring a workshop.

Mike – a workshop possible – maybe 2-3 hours. Mike will work with Greg to set something up.

➤ **IBCC Report – Travis Smith –**

The Committee chairs are going to make a report to the Colorado Water Congress at their summer convention in steamboat.

- **Update on Water 2012 Project - Judy.** Arkansas Basin working on getting their plan approved. Denver basin writing theirs. We'll be working to have our 2012 proposal. Stay tuned. More next month.

➤ **"Oil & Gas Drilling- Rio Grande County – Dale Wiescamp –**

Nothing to report on San Francisco Creek. Later in the year we're looking at pros and cons on gas explorations.

Mike: Gov. Hickenlooper is asking oil and gas companies to disclose more about the fluids used in fracking. Discussion whether they should be subject to the drinking water act.

- **Next Meeting Topics – Nicole Rowan might be coming to show flow models developed with The Nature Conservancy. JR Ford from Pagosa has a project salvaging wood from the forest for biofuels.**

**Next Meeting
September 13, 2011**

**Inn of the Rio Grande
East of Alamosa, State Highway 160**

RIO GRANDE COMPACT TEN DAY REPORT

PRELIMINARY DATA

DATE: July 27, 2011

Period Ending: July 27, 2011

RIO GRANDE

CBP Allocation: 60%

(Units in Thousands of Acre-Feet)

Projected Annual Index: 525,000
(Includes Reservoir Releases)

Obligation: 135,500

% of Index: 26%

MONTH	RIO GRANDE INDEX SUPPLY		ADJUSTED DELIVERIES	
	Recorded Flow near Del Norte	Accumulated Total	Rio Grande Lobatos less Conejos-La Sauses *	Accumulated Total
JAN	11.7	11.7	11.9	11.9
FEB	9.3	21.0	11.8	23.7
MAR	14.4	35.4	16.7	40.4
APR	37.1	72.5	3.7	44.1
MAY	95.5	168.0	6.7	50.8
JUN	183.8	351.8	20.3	71.1
JUL 1-15	40.6	392.4	8.7	79.8
JUL 16-20	6.4	398.8	2.1	81.9
JUL 21-27	7.3	406.1	2.3	84.2
Annual Credit				
APR-SEP	370.7			
TOTAL	406.1		84.2	

* Deliveries Include: Adjusted Closed Basin Project Production

3,709 Acre-Feet

Delivery Target	(% of Index)	Estimated Curtailment of Ditches	(% of Index)
January 1 - March 27	100%	January 1 - March 27	100%
March 28 - April 6	11%	March 28 - April 6	7%
April 7 - June 6	10%	April 7 - June 6	6%
June 7 - 13	11%	June 7 - 13	10%
June 14 - 17	15%	June 14 - 17	14%
June 18 - July 1	17%	June 18 - July 1	17%
July 2 - 8	19%	July 2 - 8	19%
July 9 - 27	22%	July 9 - 27	22%
July 28 -	19%	July 28 -	19%

Respectfully submitted,



Craig W. Cotten, Division Engineer, Division III

Where?

RIO GRANDE COMPACT
July 27, 2011 Analysis (250,000 Acre-Feet Forecast)
Closed Basin Project Split: 60/40

CONEJOS RIVER BASIN

DWR 7-8-11 forecast of
 April - September Index
 Flows = 226,000

Index Supply

Conejos =	160,000	January	2,800	*
Los Pinos =	60,000	February	2,400	*
San Ant. =	6,000	March	4,400	*
		April	20,800	*
		May	57,000	*
		June	103,100	*
		July 1-27	25,500	*
		July 28 - September	19,600	forecast
J-M & O-D volume	24,000	October	6,400	estimate
		November - December	8,000	estimate
Obligation =	75,000	Total	250,000	

Deliveries

Curtailment

Required Delivery 12,000 46.2%
Native Index 26,000

January	3,500	*
February	3,700	*
March	5,500	*
April	3,000	*
May	7,600	*
June	13,500	*
July 1-27	7,900	*
July 28 - October	12,000	needed
Nov - Dec native	7,700	estimate
Total	64,400	

Adjustments to the Delivery	Net Carryover Credit in E.B.	400	estimate
	Paper Credit	5,000	
	SC Norton Drain Flow	2,500	estimate
	Remaining CBP Share	2,700	estimate

Delivery Credit 75,000

Expected Dec. 31, 2011 Compact Delivery Status 0

- * = Actual measured flows (Deliveries include Closed Basin Project share)
 - All values in acre-feet
 - Assumes 40% of the Closed Basin Project flows are creditable to the Conejos
 (Projected delivery of creditable CBP production to the Rio Grande is 13,000 acre-feet)

RIO GRANDE COMPACT
July 27, 2011 Analysis (50% exceedence)
Closed Basin Project Split: 60/40

RIO GRANDE BASIN

NRCS 6-6-11 Forecast of
 April - September Index
 Flows = 435,000

Index Supply

		January	11,700 *
		February	9,300 *
		March	14,400 *
		April	37,100 *
		May	95,500 *
		June	183,800 *
		July 1-27	54,300 *
		July 28- September	64,300 forecast
		October	27,600 estimate
		November - December	27,000 estimate
J-M & O-D volume	90,000		
Obligation =	135,500	Total	525,000

Deliveries

Curtailment

Req Deliv 17,200 18.7%
Total Index 91,900

January	11,900 *
February	11,800 *
March	16,700 *
April	3,700 *
May	6,700 *
June	20,300 *
July 1-27	13,100 *
July 28 - October	17,200 needed
Nov - Dec native	27,000 estimate
Total	128,400

Adjustments	Net Carryover Credit in E.B.	500 estimate
to the	Paper Credit	5,000
Delivery	SC Norton Drain Flow	-2,500 estimate
	Remaining CBP Share	4,100 estimate

Delivery Credit 135,500

Expected Dec. 31, 2011 Compact Delivery Status 0

- * = Actual measured flows (Deliveries include Closed Basin Project share)
- All values in acre-feet
- Assumes 60% of the Closed Basin Project flows are creditable to the Rio Grande
 (Projected delivery of creditable CBP production to the Rio Grande is 13,000 acre-feet)
- Assumes no recharge diversions after November 1, 2011
- Trinchera Creek flow to the Rio Grande will increase delivery