Arkansas Basin Roundtable
November 7, 2012
Meeting Notes

## Roundtable Business

Chairman Barber called the meeting to order at 12:30 pm. Members and visitors introduced themselves. Twenty (20) members were present. There are 39 active roundtable members at this time - 20 is a quorum.

**Public Comment – none**

Gary introduced Rebecca Mitchell, Eric Hecox's replacement at CWCB. She is the Chief of Water Supply Planning, and also heads up the Conservation and Drought sections.

**October Minutes**

A motion was made and seconded to approve the minutes of the October meeting. The motion passed unanimously.

**Agenda Reviewed**

## Subcommittee Reports and Updates

**Executive Committee – Gary Barber**

**Value of Ag Water Study Group**

There will be a video-conference meeting directly following this meeting. Perry Cabot welcomes anyone who is interested to attend this meeting.

**Non-Consumptive Needs Committee**

The committee had a meeting regarding Grape Creek. The also discussed Bear Creek, west of Colorado Springs, and the Greenback Cutthroat Trout that have been discovered there. DOW is doing a presentation on that subject this Friday, from 10-12, in Canon City.

## IBCC Report – Rebecca Mitchell, Alan Hamel, Jay Winner

The IBCC has not met since our last meeting, but does meet next week.

Rebecca spoke about scenario planning at the IBCC. After roundtable feedback, the task group responsible for scenario planning responded by reworking the scenarios. Rebecca handed out a new draft and corresponding graphics. Rebecca, Nicole Rowan and RT members discussed the scenarios. Roundtable comments are welcome prior to Friday.

## PRESENTATION

**Produced Water – A New Water Source for Ag Uses During Times of Drought – Karen Brown, Julie Vlier, Jerry Jacob**

**Purgatoire Watershed Monitoring Program**

- Comprehensive Monitoring commenced in the Purgatoire Watershed in April 2010. There are 28 monitoring sites at this time.
- Over 300 CBM Produced Water Discharge Locations, producing ~8,000 af per year. If recharge is banned, water will be injected deep into the ground.
- - Companies have 4 years to come into compliance with standards.
- Continuous Monitoring at Nine Stations Provides Near Real-time Data
- Purgatoire Watershed Website Communicates Water Flow and Water Quality Continuously
- Real Time Data Provides Important Data to Support Quality/Quantity Decision Making
- In Site Specific areas Coalbed Methane Produced Water is a Resource

How is Discharge Water Used in the Watershed?

Primary Water Uses in Tributaries

- Livestock watering
- Wildlife watering

Primary Water Uses on Purgatoire
- Irrigation
- Livestock watering
- Fisheries
- Water supply

In most places, produced water has high salinity, although some produced water is very clean. Per COGCC Data, the Water Quality of Produced Water in Raton Basin Formation (Purgatoire) compared to San Juan – water quality is quite good.

**Advantages to Watershed Approach to Monitoring in the Purgatoire River**
- To the State of Colorado
  - Demonstrates achievement of protection of water quality for all classified uses in the Purgatoire River
- To the local water users
  - Real-time water quality for irrigators, anglers, and watershed stakeholders
  - Real-time flow data for the SEO
- To the CBM Operators
  - Assess water management strategies
    - Working with state agencies to determine whether surface discharges should continue

**Data Supports Opportunities for Putting CBM Water to Beneficial Use**
- Drought Planning
- Fire and post-fire management
- Source of water for agriculture
- Support meeting Arkansas River Compact requirements
- Instream flows to support non-consumptive uses

**CBM Produced Water – A New Source of Water in the Arkansas River Basin?**
- Monitoring program helps us understand water quality and flow in the Purgatoire – beneficial uses are protected
- Produced water is a resource for this over-appropriated basin
- Creative opportunities exist

## PRESENTATION – DISCUSSION

**Arkansas Basin RT Annual Report: Meeting the Needs of the Arkansas Basin (DRAFT)**

### Introduction

At the October, 2012 Annual Meeting of the Arkansas Basin Roundtable, the members agreed that a report from the Roundtable to the Colorado Water Conservation Board and Director of Interbasin Compact Negotiations is appropriate concerning our plans and methods to meet the consumptive and non-consumptive needs of the Arkansas Basin. As our CWCB Liaison and Legislative Appointee, I am addressing these thoughts and suggestions to you for delivery to your counterparts on the CWCB Board and IBCC Director John Stulp. As you know, we have learned a great deal this past year about the reality of water supply management in the Arkansas as the drought impacts have been widespread.

### Assumptions

1. The very real potential exists for a water supply gap in agriculture next year, 2013, if the snow pack along the Continental Divide is average or less.
2. A municipal supply gap could exist as early as the Year 2020.

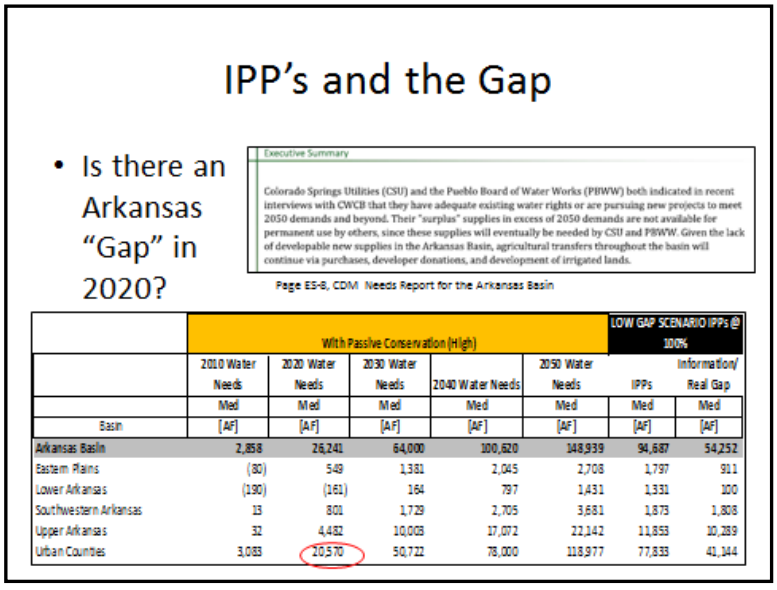
3. Our publication of as a Roundtable of the resource document *Project and Methods to Meet the Needs of the Arkansas Basin* in November, 2009 stated that the near-term municipal supply gap could be met by cooperation on regional infrastructure and rotating farm fallowing. As the recent memorandum on rotating ag fallowing notes, efforts to make that method viable are underway but it has proven to be complex and time consuming to implement.
5. The impact of drought on the availability augmentation water to support agriculture has brought into sharp focus a dependence on fully consumable, municipal return flow as a source. The municipal return flow is also counted as a source for meeting future municipal demands; therefore, our agricultural water supply gap is higher than originally thought.
4. The Portfolio Tool planning exercise revealed that the consequence of no new supply from the Colorado River means greater agricultural dry-up.

## A Supply Gap for Agriculture Right Now

Agriculture has enjoyed a significant rise in the value of commodities in the past year. Inflation and world-wide demand for food have caused prices to escalate quickly. The drought of 2012 put upward pressure on the price of augmentation water just at a time when the economics made that viable. But the sources of augmentation water that meet the criteria of the current regime of State Engineers' rules has become a challenge. If the current drought extends into 2013, municipal course of augmentation water may disappear entirely. The lower valley will be faced with taking land out of irrigation within a ditch system to support augmentation of sprinklers and drip systems under the same ditch.

In the upper valley, the daily administration of the call in the lower valley directly effects the availability of water for diversion upstream. Limitations on availability of flow for dilution of wastewater return flow also limits availability. If the drought continues, the historic call regime that has provided predictability for planting and crop management becomes unreliable. A water supply gap for agriculture exists for the Arkansas Basin right now, and only gets worse if storage and other tools to allow more flexible management of the call emerge.

## A Municipal Supply Gap is Next




| | With Passive Conservation (High) | | | | | LOW GAP SCENARIO IPPs @ 100% | |
|---|---|---|---|---|---|---|---|
| | 2010 Water Needs | 2020 Water Needs | 2030 Water Needs | 2040 Water Needs | 2050 Water Needs | IPPs | Information/ Real Gap |
| | Med | Med | Med | Med | Med | Med | Med |
| Basin | [AF] | [AF] | [AF] | [AF] | [AF] | [AF] | [AF] |
| Arkansas Basin | 2,858 | 26,241 | 64,000 | 100,620 | 148,939 | 94,687 | 54,252 |
| Eastern Plains | (80) | 549 | 1,381 | 2,045 | 2,708 | 1,797 | 911 |
| Lower Arkansas | (190) | (161) | 164 | 797 | 1,431 | 1,331 | 100 |
| Southwestern Arkansas | 13 | 801 | 1,729 | 2,705 | 3,681 | 1,873 | 1,808 |
| Upper Arkansas | 32 | 4,482 | 10,003 | 17,072 | 22,142 | 11,853 | 10,289 |
| Urban Counties | 3,083 | 20,570 | 50,722 | 78,000 | 118,977 | 77,833 | 41,144 |

An interim source of water for the identified municipal supply gap of 25,000 af is rotating farm fallowing. The availability of that source has lagged as the various elements of that supply strategy have moved forward (see Sept. 13, 2012 memo). Following the Roundtable Summit in March, 2012, the Arkansas Basin Roundtable reviewed the assumptions behind the tool. The illustration shows that even with high passive conservation, a municipal supply gap is emerging in the basin and becomes significant by the year 2020. If the planning for our roundtable is accurate, we must move immediately into implementation of strategies to meet this gap.

## New Supply Development

The 2009 Resource Document concluded that what happens next with development of Colorado's Compact Entitlement will have a direct effect on the future of the Arkansas Basin. From that conclusion, we moved, with the Metro Roundtable, to an assessment of a Flaming Gorge Task Force. The conclusion of the assessment was that a task force would be useful. The outcome of the next WSRA grant request effort was the Roundtable Project Exploration Committee: Flaming Gorge. That working committee made up of representative of all 9 roundtables is now completing the first phase of its work. The alternative to moving forward on developing new supplies will be a loss of irrigated agriculture in the Arkansas Basin.

## The Four Legs of the Stool

New supply is only one of the four legs of the stool described by the IBCC. With respect to conservation, the Arkansas Roundtable has actively participated in the multi-basin roundtable discussion initiated by the Gunnison Roundtable and will continue to pursue that water supply strategy vigorously. With respect to Identified Plans and Processes, the Southern Delivery System (SDS) is under construction with delivery expected in 2016. The use of this facility for addressing the municipal supply gap in urban El Paso County remains to be seen, along with issues concerning stormwater funding. The Arkansas Valley Conduit is moving through the preliminary environmental investigations as the Southeast Conservancy District celebrates is 50th year. The interruption or loss of either of these IPP's substantially increases the municipal supply gap in the Arkansas basin.

## Storage

Storage is the key to making all of the strategies to meet both the non-consumptive and consumptive water supply needs of the Arkansas basin successful. We initiated a joint WSRA grant with the Gunnison roundtable to investigate the utility of the Aspinall Unit for in-state purposes and mitigation of a Colorado River Compact Call. As a roundtable, we must now pursue every storage alternative in a deliberative effort to expand this important water supply management tool.

## Conclusions

RT members discussed items that should be included here, such as groundwater and non-consumptive recreational and environmental needs. We don't have a future gap – we have an existing gap. We still need to create a baseline of agriculture. There are parts of the basin where we just don't have enough information, give a couple of examples. Include projects since June of 2010.

## Recommendations

Jim Broderick is producing a White Paper regarding conducting a Basin Analysis Study Plan. It will provide a mechanism for stakeholders to work together to overcome potential project implementation constraints and effectively implement water projects that achieve designated regional water management objectives.

**Threshold Steps and Process Framework for Consideration of a Major New Supply Allocation from the Colorado River (from the Basin Project Exploration Taskforce – Flaming Gorge)**
See report.

**Future Meetings – Tentative Schedule**

**December 12th Cancelled**
**January 9th**

**The meeting was adjourned at 3:00 p.m.**

Respectfully submitted,
Terry Scanga