Arkansas Basin Roundtable

PLANNING OUR WATER FUTURE

Arkansas Basin Roundtable
July 9, 2014 – CSU Pueblo, Occhiato Center
Meeting Notes

Roundtable Business

Betty Konarski called the meeting to order at 11:30 am. Members and visitors introduced themselves. Twenty three (23) members were present. There are 41 active roundtable members at this time – 20 is a quorum.

IBCC/CWCB Reports – Alan Hamel, Jeris Danielson, Jay Winner

Alan Hamel – The next CWCB meeting will be held in Rangely next week, on the 16th and 17th. The first day will be devoted to the Basin Implementation Plans. Betty and Gary will kick off the day with a presentation of the draft Arkansas BIP. The second day will address regular CWCB business. There is a way to listen in from the CWCB website, and see the presentations.

Jeris Danielson – After many lively discussions, the IBCC has come up with a DRAFT Conceptual Agreement regarding a potential new transmountain diversion (TMD). All IBCC reps agreed on the following points:

1. The East Slope is not looking for firm yield from a new TMD project and would accept hydrologic risk for that project.
2. A new TMD project would be used conjunctively with East Slope interruptible supply agreements. Denver Basin Aquifer resources, carry-over storage, terminal storage, drought restriction savings, and other non-West Slope water sources.
3. In order to manage when a new TMD will be able to divert, triggers are needed.
4. An insurance policy that protects against involuntary curtailment is needed for existing uses and some reasonable increment of future development in the Colorado River system, but it will not cover a new TMD.
5. Future West Slope needs should be accommodated as part of a new TMD project.
6. Colorado will continue its commitment to improve conservation and reuse.
7. Environmental resiliency and recreational needs must be addressed both before and conjunctively with a new TMD.

Please take a look at the entire agreement, and get your comments to Jay and Jeris before the next IBCC meeting.

Jay Winner – Some of the issues that were in contention and may be resolved at this point were: 1) a west slope desire to have some kind of insurance against a compact call (violates the Prior Appropriations Doctrine), and 2) west slope desire to enforce high conservation levels on the Front Range (east slope response: one size does not fit all). It's important to note that the group has not selected a specific TMD project; that these points are for a hypothetical project. The next step may be to identify potential projects.

Yampa Tour – Betty Konarski

Betty attended the Yampa Tour, and gave a few comments about the things we're doing in the Arkansas Basin. She will also be attending the Club 20 presentation in Durango at the end of July.

Water Workshop – Jay Winner

Jay attended a water workshop. Presenters were given less than one minute to make a spiel, followed by questions from the audience.

Arkansas Basin Roundtable

PLANNING OUR WATER FUTURE

Feedback from Basin Meetings

Pueblo -Terry Book

Approximately 60 people attended. Kyle made the presentation, and we had a team that answered questions. Paul Fanning organized the meeting. Several folks were vocal, including Mr. Wiley, an Arkansas Valley farmer, whose impassioned plea made it in the paper.

Canon City - Tim Payne

Over 50 were in attendance, including ditch providers and rafters. It was a good sessions, with good questions asked.

Buena Vista – Rob White

Around 20 folks were there. The town council of Buena Vista showed up along with the chief administrator of the Public Works department.

PRESENTATION – Lamar Raw Water Transmission Line Replacement – Josh Cichocki

- WSRA Basin Funds: $ 50,000
- WSRA Statewide Funds: $ 150,000
- CWCB Water Loan: $ 785,000
- DOLA EMIA Grant: $ 985,000
- Total Project Cost: $1,970,000

Lamar ratepayers saw a $1.05 increase in the monthly Facility Invest Fee, a rate increase of 10%.

The original intent was to clean this primary raw water transmission line to improve water quality, quantities and efficiencies – removed a section of pipe and found extreme tuberculation and pipe failure. Funding was used to re-build the line, which is 6.5 miles long, and serves Lamar's south well fields.

- Water Loss was estimated to be 18-20%
    - New pipe will recover 180-250 ac ft per year
- Water quality in the north and middle well fields are the poorest quality, so this line was crucial for water quality.
    - North averages 1,300 mg/L TDS
    - Middle averages 850 mg/L TDS
    - South averages 450 mg/L TDS
    - Secondary Maximum Contaminant Level (SMCL) for TDS is 500 mg/L

Benefits of the new line

- Reduced water loss from leakage –
    - New pipe will recover 180 – 250 ac ft/year
- Replaced a critical water delivery system that was in danger of catastrophic failure.
- Protects Lamar's cleanest water, reducing treatment, energy & maintenance costs.
- Frees up non-potable ditch water for other municipal, industrial & agricultural uses.

GRANT APPLICATIONS

FIRI Analysis and Tailwater Return Flow Study on Fort Lyon Canal

Lower Arkansas Valley Water Conservancy District – Leah Martinsson

Statewide Funds: $ 145,136
Basin Funds: $ 30,000
Total Request: $ 175,136

Arkansas Basin Roundtable

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Project Goal

- Help fill M&I and Ag water gaps identified in Basin Needs Assessment
    - Conserving existing water supplies by lessening demands
    - Future water savings through continued installation of irrigation improvements
    - Increasing transferable yield from Fort Lyon shares

Background

- Concept grew out of Irrigation Improvements Rules and the ISAM
- ISAM incorporates factors and assumptions from the H-I Model
    - Original H-I Model set farm irrigation efficiency at 87% for all canal systems
    - Reduced to 65% for most canals
    - Assumes 10% of headgate deliveries return as tailwater
    - Tailwater reuse is not accounted for in the H-I Model

How Does This Create Water Savings?

- Less "return flow maintenance water" will be needed to meet Compact delivery requirements in Rule 10 Plans
- Less competition for Basin's existing water supplies
- Continued water savings through sprinkler installation
- Potential increase in the transferable yield of Fort Lyon shares in other contexts

Why the Fort Lyon Canal?

- Over 100 miles long
- Irrigates 94,000 acres
- Typically a water-short system
- Significant sprinkler installation
- Farmers' experience that there is very little tailwater

Project Objectives

- Obtain high-quality data on farm irrigation efficiency by conducting a Farm Irrigation Rating Index method analysis on the Canal
- Obtain high-quality data on tailwater return flows from a small number of farms
- Evaluate whether a more extensive study aimed at potentially modifying these factors in the H-I Model and the ISAM is justified

Two-Part Approach

- Conduct a FIRI Method Analysis
    - Theory analysis
    - Develops an average canal-wide irrigation efficiency
- Small-Scale Study to Measure Tailwater Return Flows
    - Determine volume of tailwater actually lost from participating farms
    - Means of cross-checking tailwater factor developed through FIRI analysis

Future Phase Two?

- Data from this Project will used to evaluate whether a more extensive, canal-wide study is justified
    - Determination would involve input from Division Engineer's Office and other interested parties
    - Would involve a full-scale investigation of farm irrigation efficiency and tailwater return flows throughout the Canal
    - Would be designed to support potential modification of H-I Model/ ISAM

Roundtable members discussed water rights and Compact issues. The application moved forward by consensus.

Arkansas Basin Roundtable

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Evaluation of Flood Control Alternatives for the Fountain Creek Corridor

Fountain Creek Watershed, Flood Control, and Greenway District – Larry Small

Basin Fund:	$ 30,000
Statewide Funds:	$105,000
Matching Funds:	$ 65,000
Total:	$200,000, plus $20,000 worth of in-kind support

GRANT OBJECTIVES

- Assemble, review and summarize water rights along Fountain Creek and the Arkansas River, and evaluate if such rights can be protected from material injury while still meeting project consumptive and non-consumptive use objectives; meet with holders of decreed water rights to discuss issues/concerns associated with the construction of infrastructure designed to meet project objectives, including the potential need to provide augmentation supplies so as to prevent material injury to any decreed water rights.
- Assemble, review and summarize flood control and sediment management alternatives evaluated and described in previous reports by the District, USGS, the USACOE and others
- Assemble and summarize previous design information and costs estimates for projects similar to the candidate alternatives.
- Identify implementation issues, in addition to water rights issues discussed above, for the candidate alternatives.
- Prepare graphics or animation to visualize the effects of implementation of candidate alternatives on properties in the flood pool during floods of 4 different magnitudes (10, 50, 100 and 500-year)
- Identify and evaluate any potential opportunities for the use of the candidate alternatives to assist in meeting consumptive and non-consumptive needs, including a preliminary analysis of any fatal flaws associated with such use
- Compare the candidate alternatives conceptually and analytically using existing information.
- Formulate and analyze options or combination of options to form feasible alternatives that meet project objectives

FLOOD CONTROL SCENARIOS

- Fourteen remediation scenarios located throughout the Fountain Creek watershed were used to evaluate the impacts of unsteady discharges associated with a 24-hr, 100-year NOAA Type II precipitation event at USGS stream gage station Fountain Creek at Pueblo (07106500) .
- Scenario 0 represents the baseline or current conditions in the watershed and was used to compare the remaining 13 scenarios
- Scenarios 1-8 and 12 rely on side-detention facilities to reduce peak flows and sediment transport.
- Scenario 9 assumes a diversion channel at the El Paso/Pueblo County line from Fountain Creek to Chico Creek
- Scenario 10 includes a dam and reservoir
- Scenarios 11 and 13 incorporate channel armoring and channel widening, respectively

EVALUATION OF FLOOD CONTROL SCENARIOS

- Scenario 8 (the scenario with the most side detention facilities), Scenario 9 (the Chico Basin Diversion), Scenario 10 (the dam) and Scenario 12 (10 side detention facilities on the corridor) were the most effective at reducing sediment transport and peak flow at the Pueblo stream gage
  - Scenario 8, with 44 side detention facilities, is not practical considering potential capital and maintenance cost
  - Scenario 9 is not practicable for a number of reasons

  - Scenario 10 has long been of interest and is worthy of further study
  - Scenario 12 is practical and is worthy of further study
- Scenarios 1 through 5 cumulatively produced local benefit with 29 side detention facilities and are worthy of future consideration when District funding becomes available
- Scenarios 6 and 7 incrementally build on Scenario 5 but duplicate in part Scenario 12 and are not worthy of future consideration
- Scenarios 11 and 13 had minimal to no effect on sediment transport and peak flow at the Pueblo stream gage and are not worthy of future consideration

MOVING FORWARD FROM FLOOD CONTROL STUDY

- **Phase 1** - Appraisal-Level evaluation of Scenarios 10 and 12 and a single large side detention alternative to Scenario 10 (3 to 12 months)
  - First step in a phased approach to identify, design and construct necessary improvements to provide adequate flood protection at the Pueblo Streamgage
  - Includes a summary of previous engineering and economic studies of main stem flood options
  - Assemble, review and summarize water rights along Fountain Creek and the Arkansas River, and evaluate if such rights can be protected from material injury while still meeting project consumptive and non-consumptive use objectives
  - Identify implementation issues
  - Create a visual presentation of areas of inundation for different flood events
  - Compare the Scenarios based on qualitative criteria
- **Phase 2** - Feasibility Study (12 – 24 months) to determine preferred option
  - Continue Water Rights Assessment started in Phase 1
  - Engineering evaluations to include hydrology, hydraulics and sediment transport
  - Property easement and acquisition options
  - Permitting requirements
  - Benefit-cost analysis
  - Stakeholder involvement
  - Communications plan

Roundtable members asked questions and discussed water rights issues involved. Alan recommended that the District's IGA partners meet soon to resolve some of the differences amongst the IGA partners. If Phase I leads to a stop point, Phase II would not proceed. Some Roundtable members generally support Phase I, but not Phase II. The applicant was asked to make revisions and return. The application did not move forward at this time.

<u>Groundwater Quality Study, Phase 2c – Upper Black Squirrel Creek Alluvial Aquifer</u>

Pikes Peak Regional Water Authority - Sean Chambers and Mike Rupert

Statewide Funds:	$42,000
Basin Funds:	$10,000
Total Request:	$52,000

The purpose of the project is to build on Phase 1 and work completed in 2011 and further water quality parameter sampling work completed in 2013 & 2014 under Phase 2a and 2b respectively, to continue and complete phase 2c of the El Paso County Groundwater Quality Study (Scope of Work Attached):

1. To refine the distribution, geometry, and hydrology of the alluvial and shallow bedrock aquifers in the northwestern portion of the Upper Black Squirrel Creek basin, and

2. to establish a groundwater monitoring network to detect and quantify impacts to water quality resulting from existing and proposed land uses that may degrade water supplies.

El Paso County is expected to use the data and recommendations to inform land use planning and determine if changes to policies and regulations are warranted. The study will also help other entities, such as special districts and UBSCGWMD make informed decisions regarding infrastructure planning. Installation of monitoring wells and establishing a groundwater monitoring program will support both water quality protection and water supply planning in the future. Establishing a water-quality baseline for the alluvial aquifer will be needed before conjunctive use/aquifer storage and recovery can occur to meet the water supply gap that has been identified by El Paso County.

With this grant application, the Groundwater Quality Study Committee seeks to augment Phase 2 funding. Funds are requested for identification of and/or installation of monitoring wells to include in a long-term monitoring program, hydrogeologic evaluation, additional analysis aquifer characteristics and vulnerability potential, to provide for early detection of potential contamination issues that could impact human health and the environment.

The Participants are in the homestretch with the groundwater analysis and modeling by USGS. The vulnerability assessment mapping tools are already proving to be a value to land use planners who have long needed a defendable technical platform and reliable data to defend land use restrictions, site specific septic regulations, and source water protection / watershed health oversight.

This application moved forward by consensus.

WestWater Research Revised Scope of Work – Basin Implementation Plan

Basin Funds: $ 19,000

This application for funds to complete the DRAFT BIP, which was discussed at the last Roundtable meeting, and at today's Executive Committee meeting, was moved forward by consensus.

BREAK

BASIN IMPLEMENTATION PLAN DRAFT – for presentation to CWCB July 16, 2014 – Gary Barber

Betty introduced the conversation, and encouraged roundtable members to make comments. A Dropbox link to the DRAFT BIP will be emailed to RT members and interested parties after this meeting. Sections will be edited and added to throughout the month of July.

Executive Summary

1 Basin Goals and Measurable Outcomes
2 Evaluate Consumptive and Nonconsumptive Needs
3 Evaluate Consumptive and Nonconsumptive Constraints and Opportunities
4 Projects and Methods
5 Implementation Strategies for the Projects and Methods
6 How the plan meets the Roundtable's Goals and Measurable Outcomes

The Executive Summary will be written after receiving today's feedback.

Who is the report for? The Basin Implementation Plan has been written for a general reader as opposed to an informed reader, and it has also been written to be used as a tool by RT members.

The starting point was SWSI 2010. This report captures what we've done since then, and what comes next. We adopted the CWCB's glossary that will be used for SWSI 2016.

Protocol for Commenting on the Draft Basin Implementation Plan:

1. Please create a new, separate Microsoft Word document that can be provided to us.
2. Please label your comments by Section Number with page and/or line references when necessary. Each comment provided by Section will be included with that Section.
3. (For individuals who may choose to provide comments in a new, saved version of the draft document, we cannot guarantee we will see every comment.)
4. E-mail your comments as an attachment to: info@arkbasinbip@gmail.com or: Gary Barber barbergl@aol.com

Protocol for Our Discussion Today:

- Expressions of Sentiment are welcome
- Suggestions are even more welcome
- If you don't like something, please:
  - Propose an alternative
  - Persuade the group of its applicability
  - Be willing to understand that others may not agree
- Updates to the Drop box folders will be labeled with dates so you can see what is new

What Comes Next?

- July 9th – Ark RT meeting for comments on BIP. Draft BIP is available for view through Dropbox.
- July 16th – CWCB meeting and presentation
- July 24th – Executive Committee meeting for final review prior to submission
- July 31st – Turn in draft Basin Implementation Plan to CWCB (flash drive)
- Post July 31st – Delivery of Flash Drive containing all elements of BIP to each Ark RT member (August meeting?)
- Download new/revised chapters to Flash Drive
- Completion of the Nonconsumptive portions of the BIP
  - Section 2.1 Nonconsumptive Needs
  - Section 4.7 Nonconsumptive Projects and Methods
  - Coordination with Watershed Health Working Group
- Processing of the Input received
- In each folder of the drop box, there will be text, appendices, and comments by voting and non-voting roundtable members
- Deliberation on the IPP's and Methods
- Public comment on the Draft BIP
- Final Basin Implementation Plan submitted to CWCB April, 2015

Section 1.0 Basin Goals and Measurable Outcomes

Basin Themes

The three broad themes identified by the Roundtable are:

1. Increased water storage is critical to all solutions;

2. The Arkansas Basin, as an importing and exporting basin with significant interbasin and interstate obligations, must meet its present and future water supply gaps by maximizing the use of native and imported water; and,
3. Stakeholders should take all actions required to maintain current water supplies and prevent future water supply gaps from increasing.

Basin Fundamentals

In order to acknowledge all of the stakeholders, their goals, and their needs, the Arkansas Basin Roundtable developed the following basin fundamentals to guide the Implementation Plan:

- Water supply gaps include all of the potential consumptive and nonconsumptive use categories: environmental, agricultural, municipal, industrial, and recreational;
- The Colorado-Kansas Compact places unique constraints on water resource management within the Arkansas Basin;
- Regional extremes in hydrologic conditions require collaborative solutions from all stakeholders.

Section 2.0 Consumptive and Nonconsumptive Needs

Completion of Nonconsumptive

- Add Goals to Section 1.0
  - Develop Actions, Measurable Outcomes, Challenges
- Complete Draft of Section 2.1
- Process Input Forms for Section 4.7
- Complete Draft of Section 4.7
- Come to closure on mapping products
- All complete by November 12th Ark RT meeting

Section 3.0 Constraints and Opportunities (see BIP Dropbox for charts)

Section 3.1: Basin operations and analysis of existing data

- Identified, obtained and reviewed water use data to support this study for the study period 1982 to 2012
- Reviewed Arkansas Decision Support System (DSS) Feasibility Study where water resources data has been inventoried
- Used data from Division of Water Resources (DWR's) HydroBase where applicable
- Solicited additional data from Water providers, Division Engineer and Bureau of Reclamation
- Used data collected under this task to support subsequent tasks
- Operations Report to summarize water resources operations in the basin for dry, average and wet hydrology
- Support the development of a hydrologic model of the major streams, diversions and reservoirs
- Summarized the water resources operations in the Arkansas River Basin.
- Described historical operations for 3 years that reflect dry, average and wet hydrology
  - Diversions
  - Storage
  - Exchanges
  - Groundwater withdrawals

Section 3.2: Water management and administration

The purpose is to provide a common understanding of water administration and Arkansas River Compact administration policies. This will aid the Basin Roundtable with a better understanding how these policies impact water use in the basin.

- Described in terms of:
  - Surface Water Administration
  - Groundwater Administration
  - Compact Administration

Section 3.3: Hydrologic modeling

- Purpose of Model
  - Large scale planning
  - Constraints and opportunities evaluation
  - Shortage analysis
- This model **IS NOT** a:
  - River administration model
  - Operational support tool
  - ArkDSS replacement
- Model Platform*: Simplified Water Allocation Model (SWAM)*
  - Generalized water allocation modeling software designed for planning applications
  - Easy to use:
    - well suited for use by a broad range of practitioners
    - portable and transparent
    - well suited for smaller budget studies
    - Monthly timestep for an extended hydrologic record
    - Limitations on the number of nodes (requires aggregation)
- See BIP Dropbox for more on this.

Section 3.4: Current and future shortage analysis

- Purpose of shortage analysis
  - Analyze water supply availability and uses for current and future (2050) to gain better understanding of both
- Use the calibrated hydrologic model to simulate a range of hydrologic conditions
- Shortages under varying hydrology will be identified
- Key Hydrology Assumptions
  - Historical Hydrology (1982 – 2012) - same as calibrated model
- Dry Hydrology
  - Based on dry hydrology "trace" from downscaled Global Climate Model (GCM)
  - Dry = 25th percentile of projected hydrology traces in GCM data set
  - Consistent with proposed SWSI 2016 approach
- Key Demand Assumptions
  - M&I Demand
    - Current – same as calibrated model
    - Future (2050) – "High Growth" projections (worst case)
      - SWSI 2010
      - Include passive conservation
  - Agricultural Demand
    - Current – based on estimated Irrigation Water Requirement
    - Future (2050) – same as current but will account for planned agricultural to municipal water right transfers identified on Identified Projects and Processes list

Section 4.1 Education, Participation & Outreach

- Input Forms received are being scanned and filed in Section 4.1
- The PEPO committee will have a phone conversation on Monday to set the direction for 2015. If you have something new to suggest, we're interested in hearing about that. Contact Terry Book.
- Would like to reach out to the younger generation, through schools, FFA, 4-H, and social media.

Section 4.2 Watershed Health

- Last meeting July 29th
- Ring of Fire graphic can be found in Dropbox
- August 7th – Peak Facilitation will speak about this subject at the Water Interim Committee

Section 4.3 Conservation

- **4.3.1-Introduction** – We're living in the era of "efficiency improvements."
- **4.3.2-Recent History of Water Efficiency** – State initiatives, entities with approved plans, current gallons per capita per day (GPCD).
- **4.3.3-State Grants** - What the grants cover, what the State expects to see in planning or implementation (movement along the lines of best management practices), how to apply for funds, SECWCD success with regional planning and their tool kit of resources.
- **4.3.4-Land Use Planning and Water Efficiency** – begin a dialogue, using water efficiency in future housing, such as the WaterSense New Housing Specification.
- **4.3.5-Good, Better, Best, Who's to Say?** 1051 reporting, one size does not fit all, Colorado Springs Utilities success stories, communities can act as a "sounding board" for one another.
- **4.3.6-Water Efficiency Does Not Happen in a Vacuum** – agriculture, energy, water quality, environmental considerations, recreational considerations, climate and sustainability.
- **4.3.7-Education and Outreach** – take your water message to the public, utilizing schools and new media.
- **4.3.8-Recommendations** – lessons gleaned from other folks' efforts, avoid revenue squeeze, communicate effectively and message consistently, pursue outdoor efficiencies.
- **4.3.9-Conclusion** - Use efficiency to introduce the public to your water topic. Efficiency buys time to get going on solutions. Create plans, move to more rigorous implementation over time. Be a sounding board for one another. Dialogue with land use authorities on water efficiency and water planning. It will take 15 years, using new media, to communicate simple messages that Water is Precious, Use it Thoughtfully, Support Solutions for the Future, if you do this, you'll have water for generations to come.

4.4 to 4.8 Projects and Methods

IPP defined in SWSI 2016 Glossary

M&I Identified Projects and Processes (IPPs): IPPs must meet the following criteria

- The project or method has a project or method proponent.
- When the proponent is a retail water provider, the project or method is being used to meet the water supply needs of its customers by 2050.
- When the project proponent is a wholesale water provider, at least one retail water provider must express interest in writing and plan on using the project or method to meet the water supply of its customers by 2050.
- The project or method must have at least preliminary planning, design, conditional or absolute water rights, rights of way, and/or negotiations captured in writing with local governments that the water project could affect.
- The water supply needs must be identified and included in the Basin Implementation Plans and/or SWSI documents.

Nonconsumptive IPP: Nonconsumptive IPPs must meet the following criteria

- The project or method has a project or method proponent.

- The project proponent plans to utilize the project to meet nonconsumptive needs by 2050.
- The project or method must have at least one of the following: preliminary planning, design, conditional or absolute water rights, rights of way, and/or negotiations captured in writing with local governments or consumptive water users that the project could affect.
- The nonconsumptive needs must be identified and included in the Basin Implementation Plan and/or SWSI documents.

Agricultural IPP (for both irrigation and non-irrigation demand): IPPs must meet the following criteria

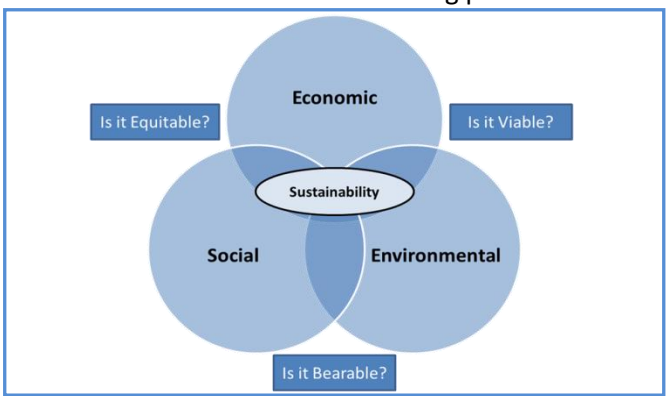
- The project or method has a project or method proponent.
- When the proponent is a retail water provider, the project or method is being used to meet the water supply needs of its customers by 2050.
- When the project proponent is a wholesale water provider, at least one retail water provider must express interest in writing and plan on using the project or method to meet the water supply of its customers by 2050.
- The project or method must have at least preliminary planning, design, conditional or absolute water rights, rights of way, and/or negotiations captured in writing with local governments that the water project could affect.
- The water supply needs must be identified and included in the Basin Implementation Plans and/or SWSI documents.

Terms "consumptive" and "non-consumptive" can be confusing, because some recreational and environmental uses are consumptive. Non-consumptive generally means environmental and recreational. Consumptive generally means municipal and industrial. Examples of IPPs that don't fit neatly into these categories include the voluntary flow agreement and conservation easements.

5.0 Implementation Strategies

Deliberation on the IPP's and Methods

- Sustainability method used in 2009 Meeting the Needs Report
- Provides a method for ranking priorities



- Results of ranking of priorities for IPP's and Methods (chart)

6.0 Meeting Goals and Objectives

Positive Outcomes

- The Public Outreach initiative will pay dividends in many ways
- The Watershed Health Working Group did great work that can be shared with the other basin roundtables
- The Ark RT will complete major "Optional" elements
  - Section 3.2 Water Management and Administration
  - Section 3.3: Hydrologic Modeling

Continuing Challenges

- The Basin Implementation Plan is a pretty good description of where the Ark Basin has traveled the past 9 years, but not yet a good road map for fully satisfying the "gap"
- Nonrenewable groundwater is a serious problem without an identifiable solution
  - Denver Basin Aquifers
  - Dakota Aquifer
- The Ark Basin will likely lose more irrigated acreage, if only to sustain the balance of agricultural production

On-going Investigations

- Gaps need to be disaggregated and identified by locality, but that raises difficult issues
- Some sub-regions are losing population and economic vitality unrelated to the availability of water
- Rotational fallowing as a solution for gap areas has proven very difficult to implement

Conclusions

- The quality and sincerity of the dialogue among and between roundtable members makes continued dialogue viable
- Public outreach is working, raising the potential for collaborative solutions within the basin
- Continued funding of WSRA grants can foster cooperation between stakeholders for multi-purpose projects
- We are developing a Basin Implementation Plan for future generations to reference.

Roundtable members discussed ranking methods, including the test of whether a project is equitable, viable, and bearable. The new CWCB criteria do not work for all basin IPPs, because they are designed for statewide grant applications.

May/June minutes

May and June minutes were approved by consensus.

OTHER BUSINESS

- Next Roundtable Meeting – August 13th, 12:30 pm, at CSU Pueblo
- August 29th, the Water Review Committee meets in Pueblo, from 9:00 am – 12:00 pm.
- At August's' meeting – begin reviewing input forms/criteria to follow
- Adjourn

Links:

www.arkansasbasin.com Presentations made at meetings can usually be found in their entirety on the website. Basin Implementation Plan Input forms are also available in printable pdf and online survey formats, along with a link to the DRAFT Basin Implementation Plan, Roundtable Meeting Agendas and Meeting Notes, and other information regarding the Arkansas Basin.

http://coloradowaterplan.com/