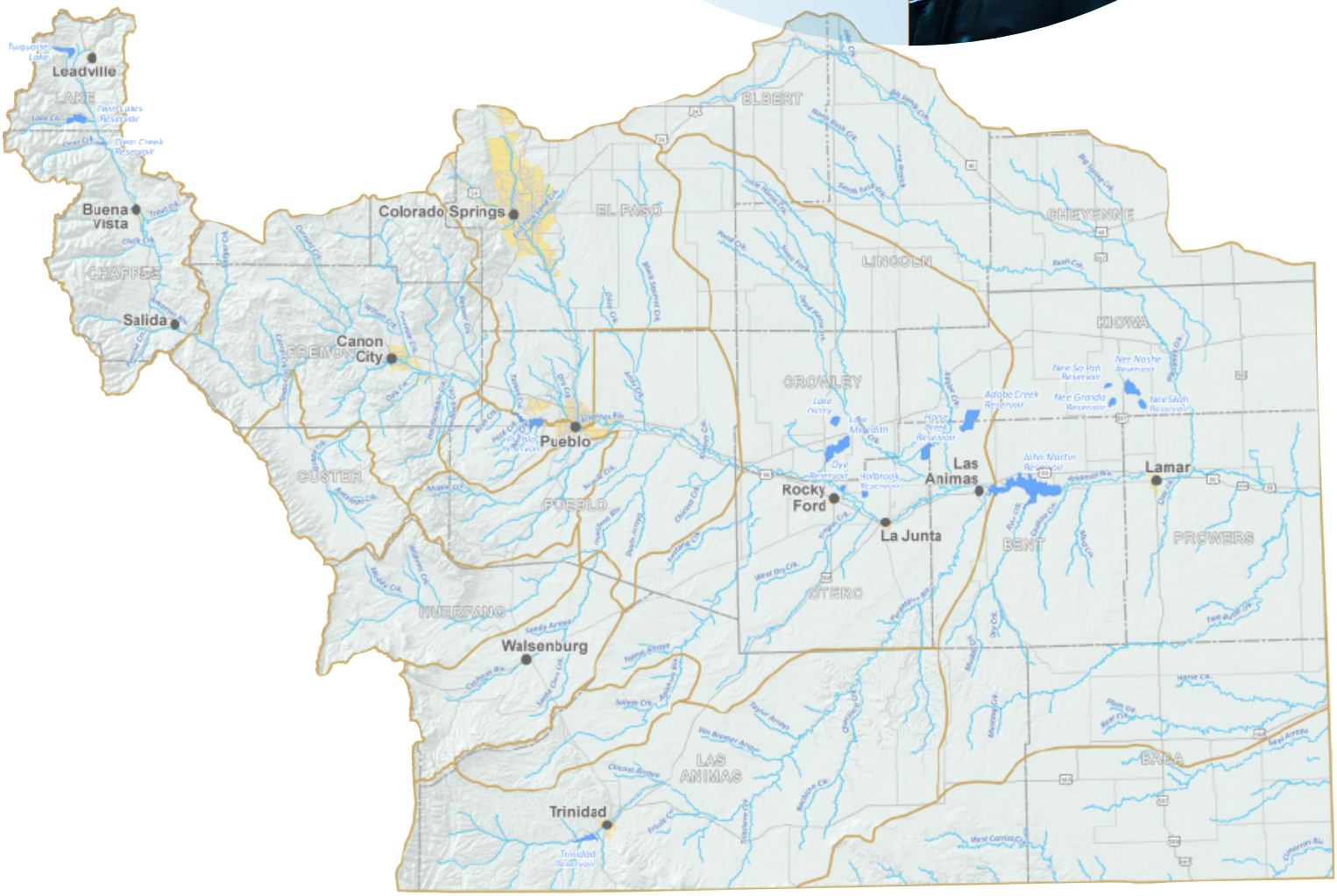
Arkansas Basin Roundtable

Basin Implementation Plan

Executive Summary

April 2015



Forward

As the Arkansas Basin Roundtable enters its second decade of existence, there is universal recognition that the water resource needs of the Arkansas River Basin are dynamic and ever-changing, in concert with the changing values of the basin's inhabitants. Therefore, this 2015 Edition of the Arkansas Basin Implementation Plan is a snapshot in time of both the needs of the basin and the projects and methods to meet those needs. Future editions are anticipated, as well as the Statewide Water Supply Initiative 2016.

Executive Summary

The past decade for members of the Arkansas Basin Roundtable parallels the experience of one of the most influential irrigators in the Arkansas Basin:

> *"When you first start out, understanding water is like trying to understand Greek. After a while it starts getting to where it kinda registers; then if you stick with it, it becomes fascinating. Water is the most valuable thing there is on the earth."*[1]

A farmer under the Catlin Canal, Mr. Frank Milenski, was a vigorous advocate for the Fryingpan-Arkansas (Fry-Ark) Project and an inaugural board member of the Southeastern Colorado Water Conservancy District (SECWCD). Although conversations about water resources have evolved since Mr. Milenski's day, his perspective of water's preeminent value remains true.

In approaching the 2015 Edition of the Arkansas Basin Implementation Plan (Arkansas BIP or the Plan), the Roundtable took to heart Governor Hickenlooper's admonition: "*Colorado's Water Policy must reflect its water values.*" Therefore, this Plan is drafted to serve as a tool for Roundtable members to help educate their various constituents, but particularly policy makers. This brief overview of the Plan's contents offers three perspectives: 1) The Plan elements as organized according to the Colorado Water Conservation Board (CWCB) directive; 2) Highlights of the future challenges faced by the various types of water usage in the basin, and 3) A description of the Needs, Solution, and Plan of Action approach along with a summary of all Planned and Ongoing Projects to meet the basin's needs.

Organization of the Plan

In early 2013, the CWCB promulgated a format for the Basin Implementation Plans (BIPs). At its July 2013 meeting, the Board added the element of Watershed Health; at that time, the State of Colorado was fighting wildfires on several fronts. In following the CWCB format, the Arkansas Basin Roundtable took a multi-vendor, team approach. The Roundtable also supported a facilitated, working group model for developing a Watershed Health strategy.

Section 1 of the Plan is titled Basin Goals and Measurable Outcomes. This chapter provides an overview of the Arkansas River Basin and articulates some common themes and fundamentals prior to presenting specific goals for the Plan. The themes recognize the critical importance of reservoir storage to all future solutions in juxtaposition with neighboring basins' hydrology, since the Arkansas operates as both an importing and exporting basin. The fundamentals describe the unique constraints of the Arkansas River Compact[2] (aka the "Kansas-Colorado Compact" or simply "Compact") and the challenges inherent in the extremes of hydrologic conditions from year to year. For example, Water Year 2011 was very wet, the next year, 2012, was one of the driest years on record.

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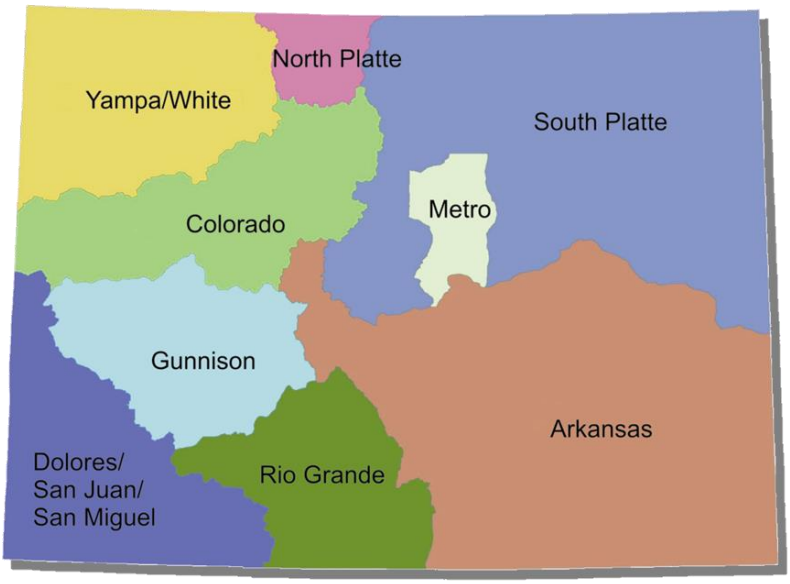
[1]Milenski, Frank, Water: The Answer to a Deserts Prayer, Boone, CO: Trails Publishing Co. 1990, p. 110.

[2] Colorado Revised Statues 37-69-101 *et seq.*

The basin goals are organized by type of usage, with summary tables for each category of Storage, Consumptive (which includes Municipal and Industrial [M&I] and Agriculture), and Nonconsumptive (Environmental and Recreational).[3] The Roundtable, in developing the earliest draft of the BIP, determined in the future to break out the term Nonconsumptive into two categories: Environment and Recreation.



Section 2 is similarly broken into two segments; Consumptive and Nonconsumptive (Environmental and Recreational). These terms are derived from the *Water for the 21st Century Act*, which created nine Basin Roundtables.[4] Section 2.1 describes Nonconsumptive Needs while Section 2.2 covers Consumptive Needs. These chapters frequently reference the historic development of basin needs, including the 2004 and 2010 Statewide Water Supply Initiatives (SWSI).

Section 3 consists of four subsections under the heading Constraints and Opportunities:

- Current Basin Water Operations and Hydrology;
- Water Management and Water Administration;
- Hydrologic Modeling; and
- Shortage Analysis.

The Water Management and Water Administration section was drafted by a former Colorado State Engineer, and is an excellent summary for anyone looking to understand the Arkansas River Compact and the constraints on water administration that have followed the *Kansas v. Colorado* United States Supreme Court decision. The hydrologic modeling is a continuing initiative of the Arkansas Basin Roundtable, aligned with a future goal of having a CWCB Decision Support System (DSS) that connects to the existing DSS models in Colorado's other river basins.

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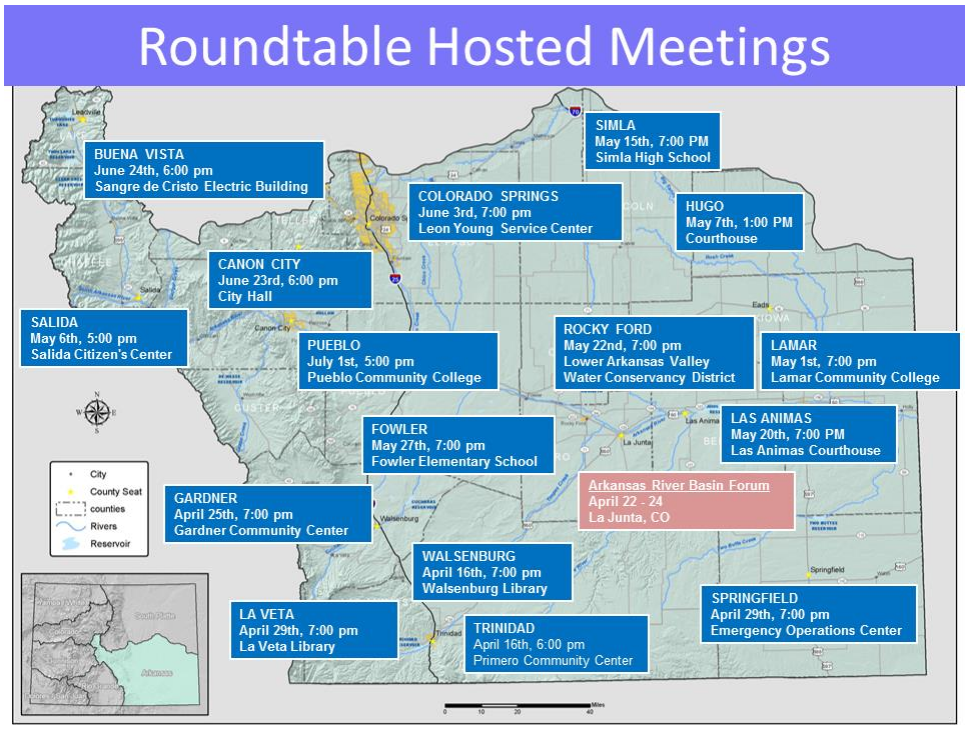
[3] **Editor's Note:** The term "nonconsumptive" is found throughout this Plan as a general term describing environmental and recreational uses of water. Nonconsumptive is a historic term derived from the organic legislation creating the Basin Roundtables. In many instances, nonconsumptive uses include some consumption of water. For the purposes of this document, the term nonconsumptive does not necessarily equate to zero or no consumption. Where it refers to a historical document, it is retained.

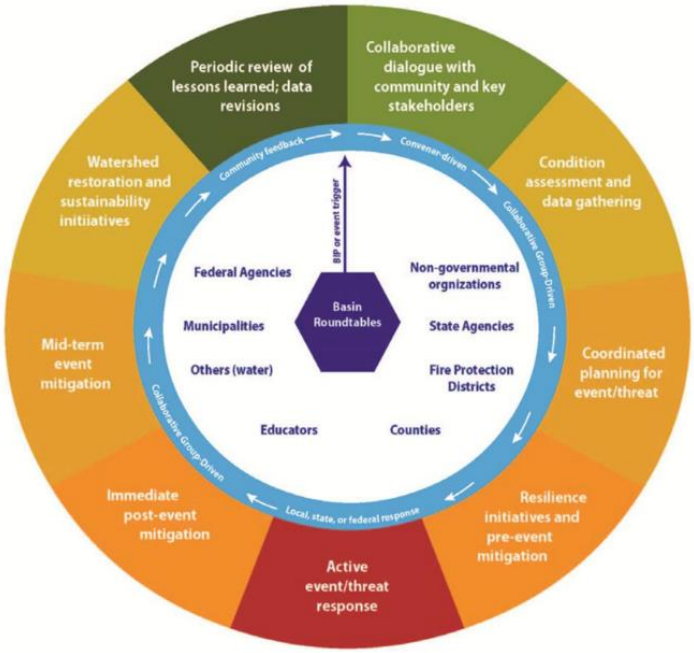
[4] Colorado Revised Statute (CRS) 37-75-104 (1) (a): Basin Roundtables *"facilitate ongoing discussions within and between basins on water management issues, and to encourage locally driven collaborative solutions to water supply challenges. Each Roundtable was vested with the authorities and responsibilities necessary to develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and to propose projects and methods, both structural and nonstructural, for meeting the identified needs."*

Section 4 is eight subsections, each attempting to describe projects and methods for meeting the water resource needs of the Arkansas Basin. The first section describes a Public Outreach Initiative wherein the Roundtable members organized and hosted over 17 public meetings, soliciting input on basin needs of every type. Over 100 Input Forms were completed by members of the public who attended these sessions in every quadrant of the basin.



Section 4.2 is the product of the Watershed Health Working Group, a collaborative effort that included three other river Basin Roundtables. The group developed a Watershed Toolkit, a Watershed Action Plan, and a planning tool that was included in Colorado's Water Plan draft in December 2014 known as the Wheel of Fire.

Similar to the learning achieved in Section 4.2, Section 4.3 evolved from Conservation to include regional challenges in water quality. The SECWCD Regional Conservation Toolbox was followed by Roundtable sponsorship of a Water Quality Working Group, along with refinement and a broader understanding of water conservation.



Sections 4.4 through 4.8 offer historic background on water projects funded through Roundtable-approved Water Supply Reserve Account (WSRA) grants. Since its inception, the Arkansas Basin Roundtable has provided over $4 Million in grant funding to address basin needs of all types.

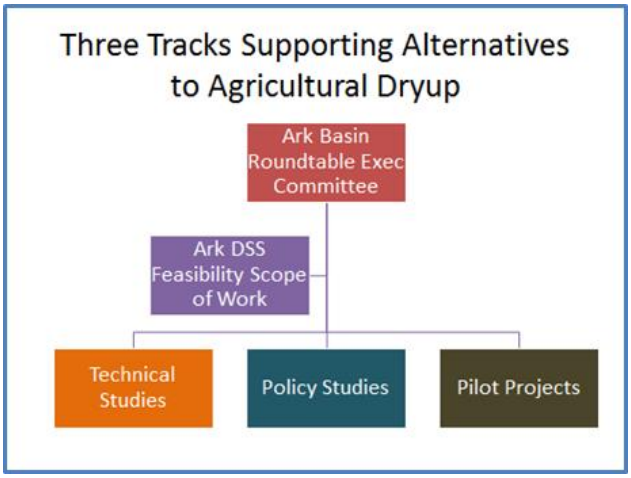
Section 5 articulates Implementation Strategies. The Roundtable's latest thinking on its legislative charge to propose projects is a Need, Solution, and Plan of Action approach, which is more thoroughly described below.

Section 6 concludes the report under the moniker Measurable Outcomes. The chapter describes a cyclical planning process, supported by the more technical SWSI updates, that remains open to public input and tracks with the changing water resource values of the communities. The planning process now recognizes eight topical interest areas for basin needs. The current posture and future challenges for each follows.

Basin Needs by Type

The organic legislation for Basin Roundtables had two categories for water resources: Consumptive and Nonconsumptive. The consumptive heading was divided into M&I (includes Self-Supplied Industrial) and Agriculture. The term nonconsumptive is a misnomer, since some environmental uses of water, like construction of a new wetland, do consume water. Conservation has often been limited to municipal customer demand management, but a more thoughtful approach includes efficiencies in all phases of municipal water delivery and may include regional collaborations with the environment and agriculture. As the values surrounding water resources evolve, the language in this Plan has also evolved. What has not changed is that each water resource element of the basin faces challenges.

Agriculture



Agriculture remains the primary user of water when measured by volume diverted. As farm practices become more efficient, additional supplemental water will be needed to meet the requirements of the Arkansas River Compact with Kansas. Currently, most of this augmentation water is leased from municipal suppliers, who have either converted historic farm water to fully-consumable supplies, or have imported new water to the basin, imported from the drainages of the Colorado River under the State of Colorado's entitlement within the Colorado River Compact. The availability of augmentation water for agriculture is expected to diminish as this municipal return flow is reused to meet future urban demands. Therefore, the Arkansas Basin Roundtable approached a future gap in agriculture by defining an economic base line.

A study by Colorado State University's Water Institute found that agriculture contributed $1.5 Billion to the economy of the Arkansas Basin. To maintain that level of economic productivity, projects and methods described in Section 4.6 focus on development of rotational fallowing, conservation easements, and increased storage capacity to allow agricultural water to sustain agricultural productivity. In particular, a three-pronged approach to understanding rotational fallowing within the Prior Appropriation Doctrine is underway—an administrative and accounting tool, pilot projects, and public policy dialogue— and will continue.

Through a thoughtful and deliberative process, the Arkansas Basin Roundtable also agreed, by consensus, to include a policy statement about agriculture:

> *"The preservation of irrigated agriculture in the Arkansas Basin shall be given a high priority in the state water plan. It is too important to tourism, the preservation of food production, recreation, the environment and the health and well-being of our citizens as well as the economy of the State of Colorado to be ignored."*

Municipal

Understanding regional needs and possible regional or local solutions highlights the imperative to disaggregate the municipal water supply gap. The 2010 edition of SWSI estimated the municipal supply gap in the Arkansas Basin for the Year 2050 as a range of 36,000 to 110,000 acre-feet (AF). Imbedded in that range, which was established based on the probability of successful completion of the then Identified Projects and Processes (IPPs), was the assumption that water available for municipal use in 2008 would remain available in 2050. Since much of the municipal supply gap is based in regions reliant on nonrenewable groundwater, a more immediate understanding of local and regional supply gaps is warranted.

A deeper examination of the municipal supply gap reveals that the municipal gap falls into two categories as follows.

Continued Dependence on Nonrenewable Groundwater

Municipal dependence on nonrenewable hard-rock aquifers and designated groundwater sources become significant liabilities as these aquifers reach the end of their useful life. That terminal date, when the economics of continued pumping increase exponentially, is here. Alternatively, the storage potential and nonevaporative nature of these same groundwater sources indicates these liabilities can become assets in addressing the gap.

Water purveyors in northern El Paso County and in the southeastern part of the Arkansas Basin are highly dependent on nonrenewable groundwater sources that are approaching the end of their useful life. The lack of cost-effective alternatives for renewable supplies have resulted in some Denver Basin purveyors pursuing the development of remote well fields. Using nonrenewable groundwater as an interim solution for depleted groundwater aquifers only extends the problem while diminishing the economic resource for a permanent solution.

Alluvial Groundwater

In a variety of localized settings, there is a need for either replacement or augmentation of alluvial wells in the near-term. In the Lower Arkansas Valley, water quality is the driver. While the Arkansas Valley Conduit could relieve the problem, federal funding may be challenging to secure. In the Upper Arkansas and the southwest portion of the basin, augmentation of existing uses and anticipation of growth are the focus.

Projects described in Section 4.5 are under development to address many of these needs. Many of the municipal water supply gap issues are highly localized. Therefore, the Roundtable is attempting to support efforts that

disaggregate demand projections for the basin to identify localized needs. This will allow a more refined assessment of where needs are located within the basin and methods for addressing localized gaps.

Environmental and Recreational Needs

The first phase of the Plan engaged the full spectrum of state and federal agencies with jurisdiction in the Arkansas Basin. The engagement has generated nearly 200 verified needs and potential projects. The Nonconsumptive Needs Committee is one of the Arkansas Basin Roundtable's oldest and most active standing committees. Increasing the advocacy for environmental and recreational needs was an acknowledged goal of the Arkansas Basin Roundtable in its 2012 memorandum to CWCB.

The Nonconsumptive (Environmental and Recreational) goals for this edition of the Plan fall into four general categories:

- Protection and improvement of species and habitat;
- Maintain, improve, and restore wetlands;
- Increasing the quality of recreational experiences; and
- Improving watershed health and water quality.

The earliest work by the Roundtable focused on a subbasin approach, which assigned attributes to Hydraulic Unit Code (HUC) subbasins, as defined by the United States Geologic Survey (USGS). The assessment of needs within the basin was predicated on the number of environmental or recreational attributes contained in each subbasin. The work was compiled into a map depiction, which is included as Figure 2.1.2 in the main Arkansas BIP. As the Roundtable's understanding of these needs matured, and with support from CWCB in the SWSI process, the depiction of attributes shifted to a stream-reach approach.

The methodology that developed, as described in detail in Section 4.7, is a Rubric for Gap Assessment and Evaluating Nonconsumptive Needs, Figure 4.7.1. This stream-reach assessment aligns with the goals of the Nonconsumptive Needs Committee in first seeking to protect existing attributes and then identifying, at the basin level, projects and methods that can restore environmental or recreational qualities. The specific attribute types, mapped by stream reach, are available in great detail on the Roundtable's website References tab (www.arkansasbasin.com).

Completion of projects to meet the environmental and recreational needs of the basin will encounter the same funding dilemma as occurs on other project types. The nonconsumptive needs are particularly challenging, however, given the constraints on advocacy for meeting those needs. Advocacy tends to come from nonprofit organizations with limited resources, yet every citizen in the basin benefits from their efforts. This is clearly an area where policy and values are coming into alignment through the Roundtable process, but the economies of support versus benefit could be significantly improved. In the meantime, the Roundtable can rely on the continued hard work by the Nonconsumptive Needs Committee.

Conservation, Efficiency, and Water Quality

The perspective associated with "conservation" has been significantly widened as a result of recent developments within the Arkansas River Basin. Conservation used to mean the storage of water during periods

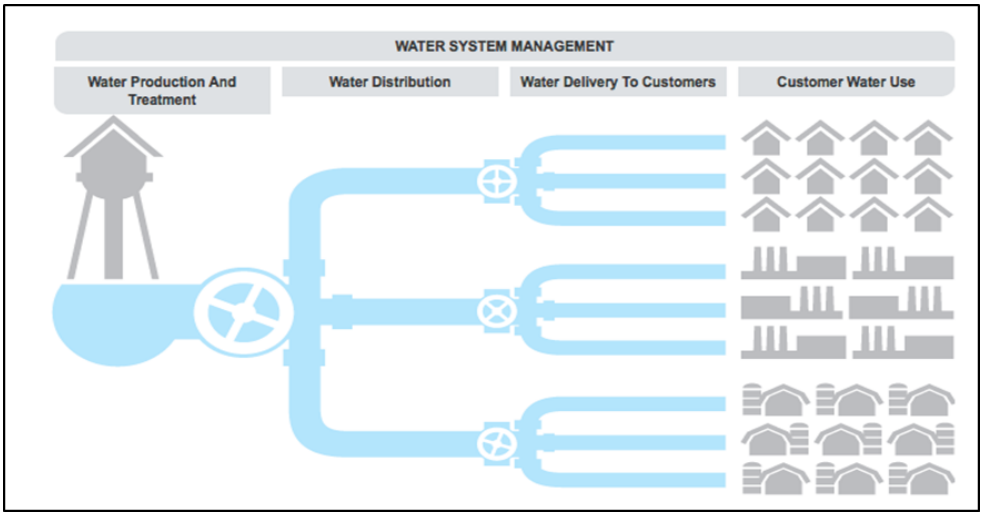
of high runoff for use when crops and municipal demands and needs occurred later in the season and during drought. Today, water efficiency measures and programs include not only effective use of carryover storage, but also regional approaches to water management and the application of conserved water to consumptive and nonconsumptive needs. Programs related to the planning and implementation of water conservation and water use efficiency, which are closely integrated with other basin IPPs, are occurring at the local and regional level throughout the basin.

The Upper Arkansas Water Conservancy District (UAWCD) supports municipal water use through the administration of its blanket augmentation plan, which provides replacement water for thousands of private residences and some commercial enterprises. The Lower Arkansas Valley Water Conservancy District (LAVWCD) also provides replacement water for some municipal entities. Finally, the SECWCD administers Fry-Ark Project water that is delivered to municipal utilities, special districts, and private water companies. All of these entities are developing and implementing regional water conservation plans.

As a component of the Arkansas Valley Conduit, SECWCD developed a Regional Water Conservation Plan, with a Best Management Practices Toolkit available on its website. In keeping with the broader understanding of the meaning of conservation, the Toolkit identifies five complementary components:

- Water Production and Treatment
- Water Distribution
- Water Delivery to Customers
- Customer Demand Management, and
- Overall Water System Management

SECWCD Water Conservation BMP Tool Box Framework

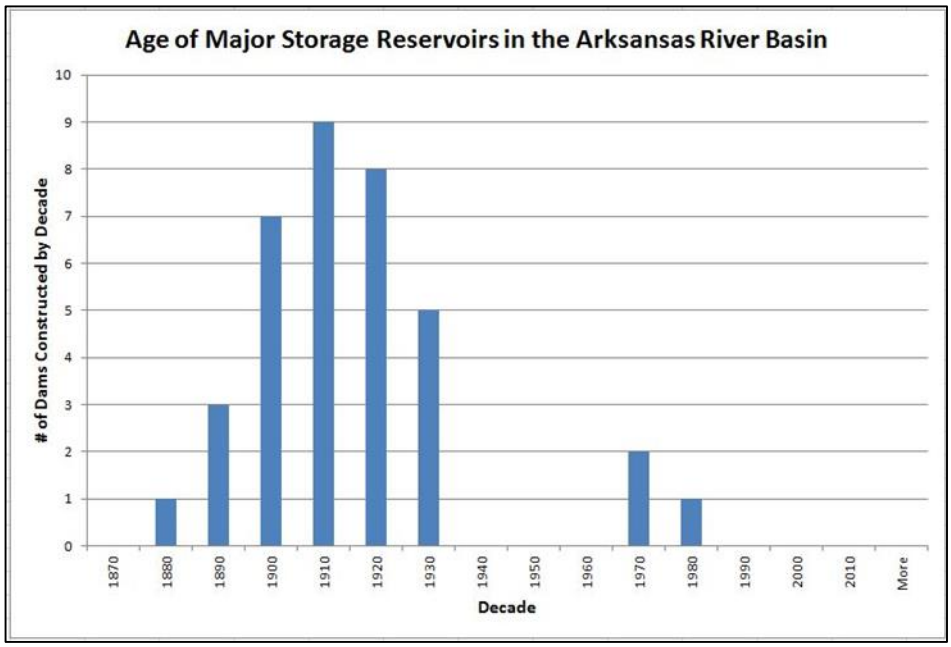


System management depends on measurable information, so the SECWCD implementation of its regional plan includes triennial system-wide audits for nearly 50 member agencies and annual data reporting. Two projects aimed at addressing basinwide needs, and identified in the Plan's Master Needs List, are Master Metering for reliable water flow measurement and the organization of a Water Quality Working Group to help support improved water management in areas impacted by naturally occurring radioactive materials in the water supply. The Water Quality Working Group is supported by a WSRA grant with substantial cash and in-kind matching funds.

Looking to the future, the efficient use of all water resources is now embedded in the approach taken by the Arkansas Basin Roundtable in promulgating projects to meet identified needs. Support of local and regional efforts, combined with regional and statewide dialogue, will combine to keep conservation and water quality at the forefront as solutions are formulated.

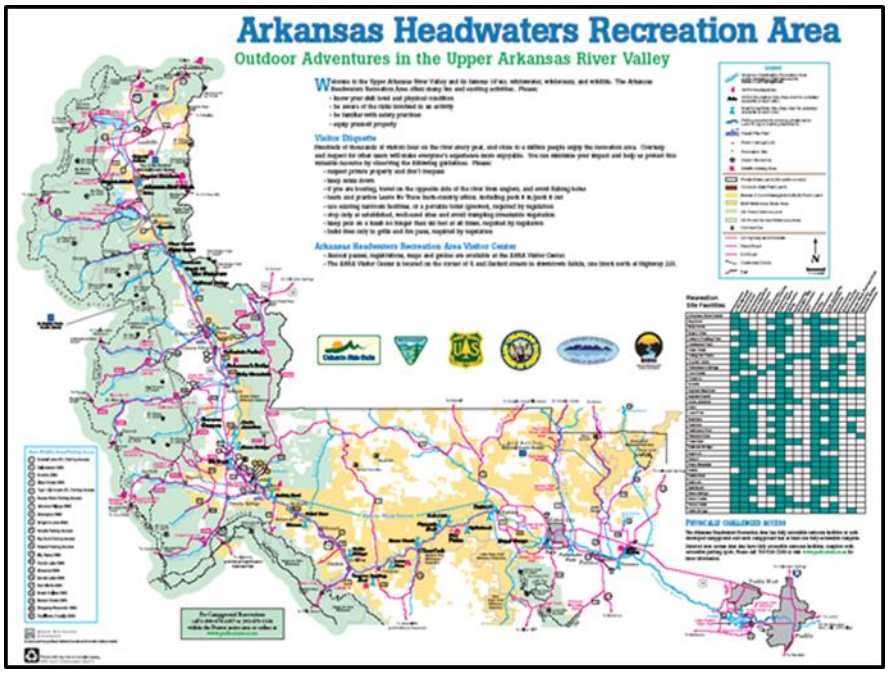
Storage

Construction of water storage structures in the Arkansas Basin followed quickly on the application of water to beneficial use in the late 19th Century. Absent reservoir storage, the peak runoff season is followed by a precipitous drop in water levels in the late growing season, a time when water availability is critical. Most of the earliest reservoirs were constructed by mutual irrigation companies as a method to ensure late-season water for shareholders. As the graphic below illustrates, the period from 1890 to 1930 saw the construction of many of the Arkansas Basin's storage structures.



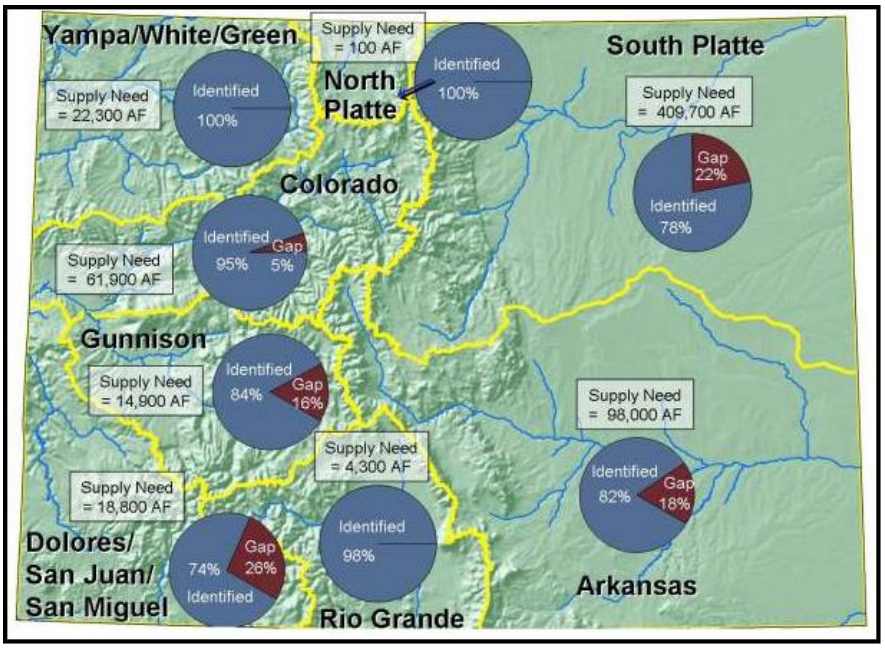
The next period of activity came after World War II, as municipal and federal projects developed a new increment of water storage. President Kennedy's 1962 signature into law of the Fry-Ark Project led to construction of Pueblo Reservoir in the mid-1970s. With large reservoirs at the upper reaches of the basin, some expanded through federal funding, the current recreational economy of the Upper Arkansas Valley depends on the management of flow, through storage, for an extended boating season. A collateral benefit is the cooperative movement of water between federal and local agencies, known as the Voluntary Flow Management Agreement, which was a critical factor in the recent designation of the Upper Arkansas as a Gold Medal fishery[5].

[5] Press release, Colorado Parks and Wildlife, January 10, 2014. "*The Gold Medal reach is 102 miles long from the confluence with the Lake Fork of the Arkansas River, near Leadville, downstream to Parkdale at the Highway 50 bridge crossing above the Royal Gorge. With the addition of the Arkansas River, total Gold Medal stream miles in Colorado increases by 50% to 322 total miles. It will also be the longest reach of Gold Medal water in the State*."



Increasing available storage is seen as fundamental to all solutions to the Arkansas Basin's needs. However, maintaining the current storage capacity may, in fact, be the greater challenge. Many small and medium size reservoirs are well beyond their useful life, while restoration costs are well beyond the capacity of the reservoir owners. A potential role for the Roundtable, similar to its experience in Watershed Health, would be to convene regional and subregional conversations about maintaining and restoring existing storage. Collaboration between disparate parties is unlikely absent an attractive opportunity to improve conditions while reducing individual costs. The "interim" nature of the State Engineers Office of Dam Safety's storage restriction authority protects public safety, but is not a path leading to regional solutions to regional challenges. The Roundtable has an opportunity to bring interested parties together for a broader based answer that is likely much less expensive. The alternative, loss of existing capacity, is too dire to consider when an alternative could be at hand.

Implementation Strategies and Measurable Outcomes



When the first SWSI study was delivered to the CWCB in December 2004, a tremor went through the water resource community. SWSI 2004 estimated that Colorado needed 630,000 AF of new water supply development to meet its municipal demands in the Year 2030. The fact that in 25 years the State of Colorado needed more water than had been developed in the previous 100 years had a sobering impact on the water community. The General Assembly quickly responded in the next legislative session with formation of nine Basin Roundtables. The earnest diligence that followed provided a refinement of that estimate, while engaging

modern water resource interests in the dialogue by reserving voting membership on each Roundtable to nationally recognized environmental and recreational organizations.

The decade that followed the first Roundtable meeting in Fall 2005 pondered the question of how to meet all the State of Colorado's needs without a disproportionate burden on any one sector or basin. At the same time, there was an imperative to acknowledge the shift in society's values regarding water. As America tamed the West, Mr. Milenski, quoted above, probably never questioned the title of his book, or whether the desert was really praying for water as its answer. We no longer drain swamps, but instead build wetlands, which are now recognized as consumption of water in a usage termed nonconsumptive. We are learning from each other as the Roundtables mature.

The culmination of the past decade is Colorado's Water Plan, delivered in draft by CWCB to Governor Hickenlooper on December 10, 2014. The foundations of Colorado's Water Plan are the diverse, individual Roundtable Basin Implementation Plans.

Developing a List of Identified Plans and Processes

The development of the 2015 Edition of the Arkansas BIP began as a two-phase process. Phase 1 was completed and delivered to the CWCB on July 31, 2014. The dialogue among and between Arkansas Basin Roundtable members following publication of the initial draft of the Plan was robust. The input provided over the previous 6 months was nearly overwhelming, with private citizens, elected officials, and public agencies offering thoughts and suggestions about the needs of the basin from their individual perspectives. These needs covered the entire gamut of type: agriculture, recreation, environment, municipal, industrial, water quality, conservation, and storage. At the Roundtable Hosted Meetings, members of the public often expressed strongly held sentiments about the future uses of water in their local area or throughout the State of Colorado. Roundtable liaison agencies were solicited to provide their working lists of potential projects that could enhance the publics' experience of water in their communities and on public lands.

Building on the previous decade of work, the Arkansas Basin Roundtable organized the compilation of basin needs in three steps. First, a complete data set of Needs was identified and compiled. Needs are also referred to as "challenges." Projects that might address the Need were solicited, with each project assigned a project status:

a) Concept,
b) Planned,
c) Implementation Ongoing, or
d) Completed

After the projects were assigned a Project Status, a multi-step process was used to assign a Project Classification. Project Classification types and definitions are listed below:

- **All Input List:** All identified needs from all sources are included in the All Input List.
- **Preliminary Needs List:** The All Input List was filtered to remove the Completed and Obsolete needs, resulting in the Preliminary Needs List.

- **Master Needs List:** The provider of each need on the Preliminary Needs List was asked to identify a Solution and a Plan of Action to implement a solution for the identified need. All needs with a defined Solution and Plan of Action carried forward onto the Master Needs List. Projects on the Master Needs List were located by latitude and longitude for later mapping.
- **IPP List:** Needs on the Master Needs List were compared to the criteria for an IPP per the SWSI 2016 draft glossary.[6] The glossary provides a detailed articulation of the criteria for an IPP, distinguished by types for Municipal and Industrial, Agricultural, and Nonconsumptive. Needs on the Master Needs List that met the SWSI 2016 IPP criteria are included in the IPP List.

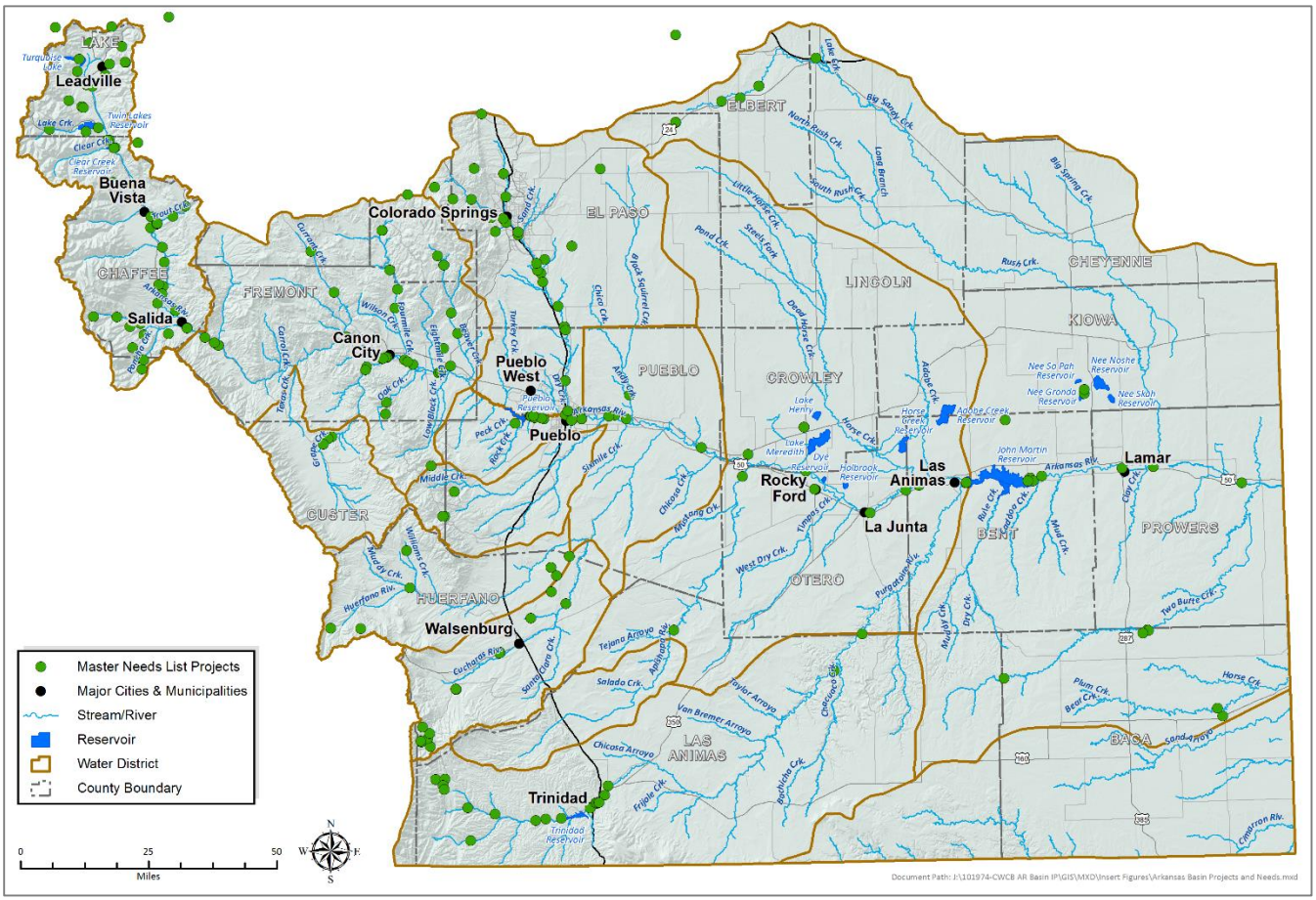
This data set, which included everything that was proffered from all sources, was screened and filtered by the Roundtable to remove items that were duplicative of other input received.

The IPP criteria are also distinguished by type, with slightly different requirements for Municipal and Industrial, Agricultural, and Nonconsumptive projects and processes. However, the common threshold for future consideration as an IPP is that a Need must be identified in the respective Basin's Implementation Plan. Hence, all Needs are included in the Plan within the Preliminary Needs List to establish eligibility in the future.

This 2015 Edition of the Arkansas BIP includes over 200 projects. These identified needs, solutions, and plans of action all express a valid concern seeking resolution, whether for a rural community, a mutual irrigation company, environmental or recreational need, or a conservancy district that encompasses the majority of the basin's entire population. The most significant factor to qualify as an IPP, although the language differs by type, is the necessity to have some element of planning or design in place. For example, to qualify as a Nonconsumptive IPP, a project "…*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*."

[6] Agenda item 15, March 18-19, 2014, CWCB Board Meeting, memorandum from the Water Supply Planning Section—Statewide Water Supply Initiative 2016.

Arkansas Basin Map with Projects and Needs



Ultimately, the Arkansas Basin Roundtable will need to determine a methodology for supporting various solutions within the basin. With a diverse membership, some areas are better represented than others. In the same vein, some segments of the basin have greater economic resources with which to fulfill the criteria for becoming an IPP.

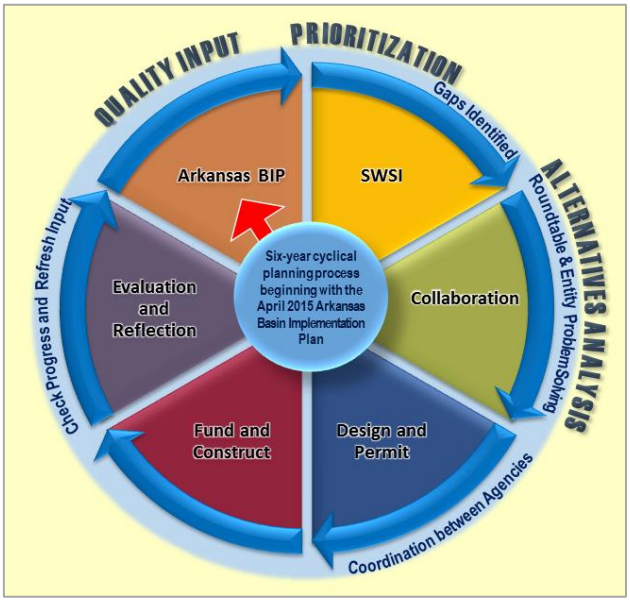
A Cyclical Planning Process

The Plan represents a snapshot in time of the Arkansas Basin's needs, as articulated through the energetic efforts of the Arkansas Basin Roundtable. Since projects to meet needs will be completed and new needs will arise, the final section of the Plan describes a cyclical planning process. The process consists of five phases:

1. Quality Input
2. Technical Data to Support Decision Making—The Statewide Water Supply Initiative
3. Collaborative Problem Solving and Defining Alternatives
4. Design, Permitting and Funding
5. Tracking Progress to Completion and Refreshing the Input

As the graphic below depicts, these planning steps apply to all of the types of the basin's needs:

- Agriculture
- Municipal & Industrial
- Environment
- Recreation
- Conservation
- Water Quality
- Watershed Health
- Storage



For regional or subregional challenges, a natural role for the Roundtable is to convene the conversations that lead to collaborative solutions. The other important element in the cycle is education of public policy makers. Given the constraints of term limits for elected officials, the Roundtable emerges as a body of corporate knowledge, with expertise and an historic perspective that can aid public policy decisions.

Roundtable Plan Approval

The Plan was presented for public comment and approval by the body of Roundtable members at the April 8, 2015 Roundtable meeting. A week prior to the meeting, a Review Draft of the Plan was posted to the Roundtable's website. A public service announcement by the PEPO team generated a newspaper article and other media coverage of the opportunity for public comment. Following presentation of the Plan elements, a limited number of public comments were offered.

The Roundtable approval process occurred in two steps. First, the Chairman queried the Roundtable members about any additions or policy statements that individual members believed would enhance the overall quality of the Plan. Following a vigorous dialogue, the Roundtable approved by consensus[7] the following policy statements for inclusion:

Land Use and Water Resource Planning

Policy Statement: The Arkansas Basin Roundtable supports the integration of land use and water resource planning.[8]

[7] See Section 4.1.6 for details.
[8] Roundtable minutes, April 8, 2015

Preference for Arkansas Basin Water

Policy Statement: It is the preference of the Arkansas Basin Roundtable that Arkansas Basin water be used first to meet Arkansas Basin needs, and that the Roundtable will investigate the development of a mechanism to make sales of water rights more attractive within the basin than without.

Full Use of the Colorado River Compact Entitlement by the State of Colorado

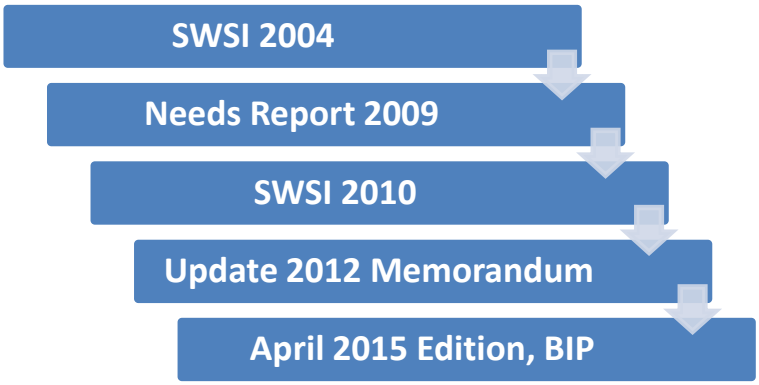
Policy Statement: The Arkansas Basin Roundtable supports the full development of Colorado's entitlement under the Colorado River Compact, for use in Colorado.

Following the agreement regarding the policy statement additions, the Chair called for, and received, a consensus approval for submission of the 2015 Edition of the Arkansas BIP.

Conclusion

At Roundtable meetings, the members occasionally jest about "water time." There is a commonly held belief that time moves very slowly in the water community, with permitting and construction of water projects measured in decades, not years. So a decade into the Roundtable process, the sense is we have made a good beginning, but only a beginning.

Building on prior work, for the first time there is an entire data set of Needs. The majority of those Needs have identified Solutions and many have a Plan of Action to implement the solution. In the meantime, the dialogue continues, with regular interaction with stakeholders and the general public. Water has become a topic of everyday conversation, with highlights like drought, flood, and fire periodically leading the evening news. However, the solutions are time consuming, complex, and often expensive.



So the question is not whether the Arkansas Basin Roundtable can successfully "*propose projects and methods to meet the needs of the basin*," as charged in 2005 by the Colorado General Assembly. It is too soon to know. A better question is whether the dedicated, volunteer cadre of Arkansas Basin Roundtable members will continue to meet in an open, cooperative spirit with sincere intention to fulfill that charge.