# Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet September 11-12, 2014 Agenda Item 13(a)

Applicant & Program Sponsor: Lower Arkansas Valley Water Conservancy District

Water Activity Name: Arkansas Basin Implementation Plan - Phase 2

Water Activity Purpose: All inclusive

County: n/a

**Drainage Basin:** Arkansas

Water Source: Arkansas River & tributaries

**Total Amount Requested:** \$313,800

Source of Funds: \$209,200 Arkansas Basin Account; and \$104,600 Statewide Account

**Matching Funds:** n/a

#### **Staff Recommendation:**

Staff recommends approval of up to \$209,200 from the Arkansas Basin Account; and \$104,600 from the Statewide Account to help fund the project titled: Arkansas Basin Implementation Plan - Phase 2.

**Water Activity Summary:** WSRA funds will be expended to complete the Arkansas Basin Implementation Plan – Phase 2 that conforms to the Basin Implementation Plan Guidance Document, with the Lower Arkansas Valley Water Conservancy District acting as the applicant and program sponsor.

#### **Discussion:**

No additional discussion is needed.

#### **Issues/Additional Needs:**

No issues or additional needs have been identified.

#### **Threshold and Evaluation Criteria:**

The application meets all four Threshold Criteria

#### **Tier 1-3 Evaluation Criteria:**

n/a

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform. In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

**Reporting:** The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the scope of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

**Final Deliverable:** At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

**Engineering:** All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.

## Arkansas Basin Roundtable

PLANNING OUR WATER FUTURE

August 15, 2014

Colorado Water Conservation Board

Attn: Mr. Craig Godbout

Program Manager, Water Supply Planning Section

1580 Logan Street, Suite 200

Denver CO 80203

Re: WSRA Grant Recommendation-Arkansas Roundtable Basin Implementation Plan Phase Two

Dear Mr. Godbout,

At its August 13, 2014 Arkansas Basin Roundtable meeting, the Roundtable supported the \$313,800 WSRA grant request from the Lower Arkansas Water Conservancy District for the Arkansas Roundtable Basin Implementation Plan (BIP) Phase Two. The grant requests \$209,200 from the Basin account and \$104,600 from the Statewide account.

Phase two of the Arkansas Roundtable Basin Implementation Plan will process input received from public meetings hosted by Roundtable members throughout the Basin including representation from agriculture, environment, recreation and municipal/industrial water users as well as input collected on its new website <a href="www.arkansasbasin.com">www.arkansasbasin.com</a> and the state's website. This input has been disaggregated by sub-region. The Arkansas Basin Roundtable desires to further refine the BIP by understanding sub-regional gaps, further investigate the nonconsumptive projects and their interaction with agriculture and municipal/industrial water uses, and use the public input to identify potential Projects, Processes and Methods to address those gaps.

Other components of this effort are 1) to understand and articulate nonconsumptive needs in relation to the constraints and opportunities 2) clarify the interdependence between current agricultural uses of water and the future needs to sustain agriculture throughout the Basin , and 3) build upon the high level of sub-regional involvement to expand Public Information and Education about the value of water to the Arkansas Basin and to the state of Colorado.

If you have any questions regarding the Roundtable support, please don't hesitate to call me.

Warm regards,

E.L. Konarski, Chr.

Arkansas Basin Roundtable.

Konowski



#### COLORADO WATER CONSERVATION BOARD

## WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: August 1, 2014



Arkansas Roundtable Basin Implementation Plan Phase Two

#### Name of Water Activity/Project

Lower Arkansas Valley Water Conservancy District

Name of Applicant

Arkansas Basin Roundtable **Amount from Statewide Account:** 

104,600

**Amount from Basin Account(s):** 

209,200

**Approving Basin Roundtable(s)** 

(If multiple basins specify amounts in parentheses.)

**Total WSRA Funds Requested:** 

313,800

FEIN: 481298144

#### **Application Content**

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Signature Page	page 12

#### **Required Exhibits**

- A. Statement of Work, Budget, and Schedule
- B. Project Map
- C. As Needed (i.e. letters of support, photos, maps, etc.)

#### **Appendices – Reference Material**

- 1. Program Information
- 2. Insurance Requirements
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000)
- 4. W-9 Form (Required for All Projects Prior to Contracting)

#### **Instructions**

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCB). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application with a detailed statement of work including budget and schedule as Exhibit A to CWCB staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCB website at: <a href="http://cwcb.state.co.us">http://cwcb.state.co.us</a> Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <a href="http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf">http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf</a>

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Craig Godbout - WSRA Application Colorado Water Conservation Board 1580 Logan Street, Suite 200 Denver, CO 80203 Craig.godbout@state.co.us

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or craig.godbout@state.co.us.

### Part I. - Description of the Applicant (Project Sponsor or Owner);

1.	Applicant Name(s):		r Arkansas Valley rict	Water Cons	ervancy		
	Mailing address:		Swink Ave. Ty Ford, CO 81067				
	FEIN #:	4812	98144				
	Primary Contact:	Jay	Winner	Position/Title:	General Manage	er	
	Email:		jwinner@centuryt	el.net			
	Phone Numbers:	Cell:	719-469-8935	Office:	719-254-5115	 115	
	Alternate Contact:	Carl	a Quezada	Position/Title:	Office Manager		
	Email:						
	Phone Numbers:	Cell:		Office:	719-254-5115		
2. El	ligible entities for WSRA	funds inc	clude the following. What ty	pe of entity is the A	Applicant?		
	are encouraged to work	with loc	alities, enterprises, counties, a eal entities and the local entity make a compelling case for	should be the gra	nt recipient. Federal age	ncies	
х	Public (Districts) – authand water activity enter		Fitle 32/special districts, (con	servancy, conserva	ntion, and irrigation distri	icts),	
	Private Incorporated –	mutual d	itch companies, homeowners	associations, corpo	orations.		
	Private individuals, par for funding from the St		s, and sole proprietors are elig Account.	tible for funding from	om the Basin Accounts b	out not	
	Non-governmental orga	anization	s – broadly defined as any or	ganization that is n	ot part of the governmer	nt.	

3. Provide a brief description of your organization

The Lower Arkansas Valley Water Conservancy District ("Lower Ark District") is a water conservancy district established in 2002 pursuant to Colorado law, C.R.S.§ 37-45-101 et seq. The Lower Ark District's mission is to acquire, retain and conserve water resources within the Lower Arkansas River; to encourage the use of such water for the socio-economic benefit of the District citizens; and to participate in water-related projects that will embody thoughtful conservation, responsible growth, and beneficial water usage within the Lower Arkansas Valley. The Lower Ark District has consistently supported the Arkansas Basin Roundtable since its inception and has actively participated in the development of Phase One of the Arkansas Roundtable Basin Implementation Plan.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

The Lower Ark District formed a Water Activity Enterprise in 2003 to manage the District's water assets and provide services to the District on a reimbursable basis. The Lower Arkansas Valley Water Enterprise Fund would be the contracting entity for this project. This approach has successfully completed on four prior CWCB grants (two concerning the Super Ditch, including two WSRA grants, and two concerning the State Engineer's Irrigation Improvements Rules).

5.	Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.
	The Applicant will be able to contract with the CWCB using the Standard Contract
	The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.
6.	The Tax Paver Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please

describe any relevant TABOR issues that may affect the applicant.

The Lower Ark District's 1.5 mill property tax levy is exempt from TABOR pursuant to the election that formed the district in 2002.

		<del>-</del>	the Water Activity/Project at application? (Please check only one)
		Nonconsumptive (Enviro	nmental or Recreational)
		Agricultural	
		Municipal/Industrial	
		Needs Assessment	
		Education	
		Education	
	Х	Other Explain:	This grant supports all listed categories
2. It	f you feel th	is project addresses multipl	e purposes please explain.
info	rming thei	r respective constituencie	provides an education tool for Roundtable member's use when as about water issues in their local area.  mentation of a water activity/project? (Please check only one)
	х	Study	Implementation
4. T	o catalog m	neasurable results achieved	with WSRA funds can you provide any of the following numbers?
		New Storage Created (a	acre-feet)
		New Annual Water Sup	oplies Developed, Consumptive or Nonconsumptive (acre-feet)
		Existing Storage Preser	ved or Enhanced (acre-feet)
		Length of Stream Resto	red or Protected (linear feet)
		Length of Pipe/Canal B	uilt or Improved (linear feet)
		Efficiency Savings (acr	e-feet/year OR dollars/year – <b>circle one</b> )
		Area of Restored or Pre	served Habitat (acres)
X		Other Explain: Se	e Exhibit A

	SRA projects please include a the entire Arkansas River Bas	<b>.</b> `	B) and provide the general coord	linates below:
Latitude:		Longitude:		

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

The Draft Arkansas Roundtable Basin Implementation Plan was delivered to the Colorado Water Conservation Board on the July 31, 2014 deadline. At the time of delivery, the Plan acknowledged that it was a draft only. Additional time and resources are required to process the large volume of public input received and to further understand the nature and location of consumptive and nonconsumptive gaps. The Arkansas Basin Roundtable desires to further refine the BIP to incorporate that public input, to disaggregate gap areas by locality and sub-regions (particularly with regard to groundwater dependent areas) and to further investigate the nonconsumptive projects and their interaction with agriculture and municipal/industrial water uses.

#### Part III. - Threshold and Evaluation Criteria

- 1. <u>Describe how</u> the water activity meets these **Threshold Criteria.** (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)
  - a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes. <sup>1</sup>

This water activity increases the quality of input by the Arkansas Basin Roundtable to the Colorado Water Plan as contemplated in the Governor's Executive Order D2013-005.

b) The water activity underwent an evaluation and approval process and was approved by the Basin

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<sup>&</sup>lt;sup>1</sup> 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

#### See Letter of Approval from Ark RT Chair

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.<sup>2</sup> The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

This activity directly supports the Arkansas Basin Roundtable in its legislative mandate to "propose projects and methods to meet the needs" of the Arkansas Basin. (C.R.S. 37-75-101 et seq.)

d) Matching Requirement: For requests from the **Statewide Fund**, the applicants will be required to demonstrate a **25 percent** (or greater) match of the total grant request from the other sources, including by not limited to Basin Funds. A minimum match of 5% of the total grant amount shall be from Basin funds. A minimum match of 5% of the total grant amount must come from the applicant or 3rd party sources. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the contract or purchase order between the applicant and the State of Colorado is executed. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application)

28% (\$78,000) matching funds from the Arkansas Basin Roundtable (requested) 72% (\$165,000) funds from the Statewide Account

2. For Applications that include a request for funds from the **Statewide Account**, <u>describe how</u> the water activity/project meets all applicable **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.** 

<sup>&</sup>lt;sup>2</sup> 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

Revised October 2013

<u>Evaluation Criteria</u> – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three "tiers" or categories. Each "tier" is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

## <u>Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs</u>

a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).

A further refinement of the Draft Arkansas Roundtable Basin Implementation Plan is intended to connect gaps with projects and methods to meet those gaps. One portion of the effort will focus on understanding sub-regional gaps and public input or Identified Plans and Process that could address those gaps. Two other component of this effort are: 1) Understand and articulate nonconsumptive needs in relation to the constraints and opportunities described in Section 3 of the Draft BIP, and; 2) clarify the interdependence between current agricultural uses of water, future needs to sustain agriculture throughout the basin and nonconsumptive needs.

b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.

This program includes all members of the Arkansas Basin Roundtable, both voting and liaison, and their respective stakeholders and constituents.

c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

A further refinement of the Draft Arkansas Roundtable Basin Implementation Plan will aid significantly in addressing gap areas in all water resource topic areas.

#### Tier 2: Facilitating Water Activity Implementation

d. Funding from this Account will reduce the uncertainty that the water activity will be implemented.

Funding from the WSRA will reduce the uncertainty that the Arkansas Roundtable Basin Implementation Plan is comprehensive in identifying the needs of the Arkansas River basin.

e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant and appropriate commitment to the project.

The team that compiled the first Draft BIP is contributing time and materials from July 31, 2014 through contracting for Phase 2 as an in-kind contribution. This contribution is intended to assure the highest quality work product with the knowledge than some or all Phase One team members may not participate in Phase Two.

#### Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

f. The water activity helps sustain agriculture and open space, or meets environmental or recreational needs.

One of the specific goals of Phase Two is to gain greater understanding of the interaction between agriculture, open space and the environment and recreation to better sustain agriculture and meet nonconsumptive goals.

g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

This water activity is intended to understand management of water resources in the Arkansas River basin to meet identified needs within the constraints of the <u>Kansas v. Colorado</u> lawsuit and the Arkansas River Compact.

h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.

Integration of nonconsumptive needs, and the protection of attributes with the Arkansas River basin as identified in Phase One, are specific goals of this water activity.

i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.

The benefit of the Pubic Outreach initiative by the Arkansas Basin Roundtable will emerge through the processing of information received as one of the tasks of Phase Two. There were over 100 Input Forms completed in the short two months of public meetings. Input from major water providers, conservancy districts, non-profits and local governments is still being received and will be incorporated in Phase Two. There is a high level of benefit to Colorado in relationship to the funds requested because so

#### Water Supply Reserve Account – Application Form

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much of the input, and the work to process that input in Phase Two, has and will depend on volunteer efforts by Roundtable member.

j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

This water activity will assist all Sections with the CWCB organization, but may be particularly helpful to the Water Management, Loans and Grants, Environment and Public Information sections.

#### Part IV. – Required Supporting Material

1. Water Rights, Availability, and Sustainability – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

The water body affected includes the entire Arkansas River basin and those watersheds that are impacted by imports to the Arkansas Basin and exports from the Arkansas Basin.

2. Please provide a brief narrative of any related studies or permitting issues.

The Draft Basin Implementation Plan dated July 31, 2014 will benefit from further refinement and inclusion of the input received during the Public Outreach initiative.

3. Statement of Work, Detailed Budget, and Project Schedule

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement**. All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

#### See Exhibit A.

#### REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion of the tasks identified in the statement of work including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.

#### **PAYMENT**

Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 10 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and help promote the development of a common technical platform.

The above statements are true to the best of my knowledge:

Signature of Applicant:

**Print Applicant's Name**: Jay Winner, General Manager, Lower Arkansas Valley Water Conservancy District **Project Title**: Arkansas Roundtable Basin Implementation Plan Phase Two

Date: August 1, 2014

#### Return an electronic version (hardcopy may also be submitted) of this application to:

Craig Godbout – WSRA Application Colorado Water Conservation Board 1580 Logan Street, Suite 200 Denver, CO 80203 303-866-3441, ext. 3210 (office) 303-547-8061 (cell) craig.godbout@state.co.us

# Exhibit A Statement of Work - DRAFT

WATER ACTIVITY NAME – Arkansas Basin Implementation Plan – Phase 2 GRANT RECIPIENTS – Fiscal Agent (TBD) FUNDING SOURCE - Statewide Account / Basin Account

The following is a Scope of Work to enhance the Draft Arkansas Basin Implementation Plan (Plan or BIP) between Draft and Final submittal to the Colorado Water Conservation Board (CWCB) and incorporation in to the Colorado Water Plan (CWP). The Arkansas Roundtable (Ark RT) elected to solicit input from the stakeholders in the basin through a Public Outreach initiative; specifically, orienting the annual Arkansas Basin Forum to the topics of the Basin Implementation Plan and Colorado's Water Plan, by organizing and hosting a total of 17 public meetings and maintaining a website. The input received in that process needs to be integrated in the Draft Plan along with greater detail regarding the municipal supply gap. A disaggregation of the municipal gap, and alignment with potential solutions brought forward during the Outreach Initiative, will provide a clearer picture of regional projects and methods to address the Basin's needs. The tasks identified in this scope of work will refine and improve the Draft Arkansas BIP. The format for Tasks follows the Basin Implementation Plan (Plan) Draft Guidance.

<u>Consultants.</u> This Scope of Work includes three (3) consultants: a Consumptive Consultant, a Nonconsumptive Consultant and a Project Manager, referenced collectively as "Consultants." Where an individual entity has sole responsibility for an activity, that entity is designated.

### **Executive Summary**

According to the BIP guidelines the executive summary of the Arkansas BIP will be included in the CWP.

#### **Consultants Responsibilities**

#### Task 0.0 – Executive Summary

The Executive Summary in the Draft Plan is a progress report. Project Manager will revise and finalize the Executive Summary of the Arkansas BIP.

• Redraft Executive Summary, present to Executive Committee and Ark RT, revise for final submission.

### Section 1: Arkansas Basin Goals and Measurable Outcomes

The Draft Plan included a total of four (4) Storage Goals, four (4) Municipal Goals, five (5) Agriculture Goals and eight (8) Nonconsumptive Goals. These goals will be revised and further articulated in the text where appropriate. New goals may be added based on a review of the input and further dialogue by the Ark RT.

#### **Consultants Responsibilities**

#### Task 1.0 - Goals and Measurable Outcomes

The Consultants will work with the BRT to revise and finalize the basin's goals and measurable outcomes for input into the CWP.

- Include new goals as identified in review of the input forms
- Develop Measurable Outcomes, Actions and Challenges to complete the Nonconsumptive Goals table

## Section 2: Evaluate Consumptive and Nonconsumptive Needs 2.1 Nonconsumptive Needs

This section of the Plan reviewed and documented nonconsumptive needs in the Arkansas Basin. Section 2.1 currently describes the progress to date and contains appendices of historic documents, including the Nonconsumptive Toolbox.

This section of the Plan will be enhanced and finalized by performing the items listed below.

#### **Consultants Responsibilities**

#### Task 2.1 – Nonconsumptive Needs

Nonconsumptive Consultant will work with the nonconsumptive needs committee to address comments or questions on the draft BIP. Coordination between the input received in the Public Outreach initiative and the nonconsumptive needs committee will generate minor edits to the current BIP draft. The Consultants will submit revisions to the Project Manager for inclusion in the final Arkansas BIP, to inform the Colorado Water Plan (CWP) and for inclusion in SWSI.

- Meet with the Nonconsumptive Needs Committee to revise Section 2.1 of the Draft
- Update Appendices as appropriate

#### 2.2 Consumptive Needs

This Section of the Draft Plan summarized the historic studies by the Ark RT and the methodologies applied in SWSI 2010. The Draft Plan also highlighted the local and regional nature of the municipal gap, the need for greater definition of interrelationship between agriculture and the environment and the pressure on agricultural water resources from increasing farm efficiency. An update of this section will disaggregate the gap into sub-regions. Within that disaggregation, the Consultants will distinguish between those groundwater resources that have been depleted and now require replacement sources of supply, those groundwater resources that have been depleted for economic benefit and are unlikely to ever be replaced, those groundwater resources that are challenged by water quality or other constraints besides depletion and groundwater systems in support of agriculture (center pivots, drip systems) that require increase augmentation under the SEO's Efficiency Rules.

#### **Consultants Responsibilities**

#### Task 2.2 – Consumptive Needs

The Consultants will;

- Disaggregate the consumptive needs for the basin by both sub-region and type.
- Compare Sub-regional needs with input received during the Public Outreach initiative.
- Quantify agricultural augmentation needs in sub-regions.. Integrate this information into the final Arkansas BIP.

## Section 3: Evaluate Consumptive and Nonconsumptive Constraints and Opportunities

The purpose of this section is to help the BRT better understand the constraints and opportunities within the basin to meet their identified needs. Sections 3.2 and 3.3 were completed in Phase 1, revisions to the Draft Plan will be made to Sections 3.1 and 3.4:

Consumptive and Nonconsumptive Constraints and Opportunities

- 3.1 Analysis of Constraints and Opportunities Based on Existing Data
- 3.4 Current and Future Shortage Analysis

#### 3.1 Analysis of Constraints and Opportunities Based on Input Received in Phase 1

The purpose of this task is to illustrate where projects and methods could be implemented and where constraints exist that might limit solutions. This Phase 2 BIP will generate maps showing "pinch points" or conflict areas, coordinated with consumptive and nonconsumptive projects and methods. Sub-regions with available modeling or management tools will be integrated. Sub-regions without tools, particularly groundwater dependent regions or tributaries to the Arkansas mainstem, will be identified for future study.

The impact of regulatory and jurisdictional constraints on water operations will be discussed.

#### **Consultants Responsibilities**

#### Task 3.1 – Constraints and Opportunities Based on Existing Data

Consumptive Consultant will work with Arkansas BRT to refine and enhance identified pinch points, other constraints, and opportunities identified in the Draft Arkansas BIP. This information will be integrated into the final Arkansas BIP.

- Generate maps identifying projects and conflict areas between projects and hydrologic constraints
- Propose modifications or alternatives to projects if and where possible

#### **Section 3.4 Current and Future Shortage Analysis**

Using the model developed in Task 3.3., the Draft Plan will be updated with specific locations of shortages compared against solutions generated in the Outreach initiative. The shortage analysis will summarize where M&I, agricultural, and nonconsumptive needs may have shortages under varying hydrology such as wet, dry, and average conditions.

#### **Consultants Responsibilities**

#### Task 3.4 - Shortage Analysis

#### **Description of Task**

The purpose of this task is to analyze water supply availability and uses for current conditions and a future planning horizon (2050) in order to gain a better understanding of both. Analyses will incorporate a range of hydrologic conditions and demand projections associated with the selected planning horizon. The analyses will include a shortage analysis as described above.

#### **Deliverable**

The results of the shortage analysis as documented in section 3.4 of the final Arkansas BIP is underway. The Draft considers a single scenario. The input received, an update to Section 4.3 Conservation and the disaggregation of the municipal gap will require scenarios with different assumptions. Consumptive Consultant shall:

- Meet with a technical committee to establish assumptions for scenarios (e.g. planning horizon other than 2050, alternatives to "high growth," changes in return flow as fully consumable source transition from agriculture to meet the municipal gap, dry-up of agriculture to meet increased agricultural demand from increased efficiency, etc.)
- Present Shortage Analysis to Ark RT at a roundtable meeting

### Section 4: Projects and Methods

The Arkansas BRT will process the input received during the Public Outreach initiative, then update and refine their list of consumptive and nonconsumptive IPPs and identify potential new structural and nonstructural solutions to sub-regional gaps and shortages. The section will include the minor revisions to some sections:

- 4.2 Watershed Health
- 4.4 New Multi-Purpose, Cooperative, and Regional Projects and Methods

And more significant revisions to these sections:

- 4.1 Education, Participation, and Outreach
- 4.3 Conservation and Reuse Projects and Methods
- 4.5 M&I Projects and Methods (i.e., projects, conservation, reuse, drought planning, etc.)
- 4.6 Agricultural Projects and Methods
- 4.7 Nonconsumptive Projects and Methods

Section 4.8 will not be modified.

#### 4.1 Education, Participation, and Outreach

During the development of the draft Plan the Arkansas Basin Roundtable adopted an active engagement with the basin residents and held 17 public meetings. Over 100 input forms were received, along with 300+ suggestions for potential projects. This input will be sorted into sub-regions, qualified for sufficiency of information and measured against the Basin's needs and goals. Projects meeting the criteria for an IPP will be memorialized in a Project Summary Sheet.

#### **Consultants Responsibilities**

#### Task 4.1 – Education, Participation, and Outreach

The Consultants will review and collate the input forms, coordinate further information gathering for the BIP and oversee the completion of Project Summary Sheets by roundtable members. The Projects that qualify as IPP's will be included under each subsections list of IPP's and/or organized by sub-regions.

- Nonconsumptive Consultant will support the public outreach efforts per the allowance provided in the attached budget.
- Presentations as requested by the Ark RT Executive Committee to stakeholder groups and interested parties

#### 4.2 Watershed Health

The Watershed Health Working Group delivered an Action Plan for the Arkansas Roundtable BIP. This Action Plan contemplates formation of an Upper Arkansas Watershed Coalition to begin organizing the dialogue on Watershed Health. The expectation is that this Coalition will begin with a nucleus of Roundtable members.

#### **Consultants Responsibilities**

#### Task 4.2: Critical Community Watershed Health Plans

- Present the deliverables from the Watershed Health Working Group, including the Action Plan and Summary of Tools and Processes, to interested third parties and other basin roundtables.
- Update the Draft Plan Section 4.2 to chronicle the success of the Action Plan implementation

#### 4.3 Conservation and Reuse Projects and Methods

#### **Consultants Responsibilities**

#### Task 4.3 – Conservation and Reuse

The Consultants will perform the following activities to further develop the conservation and reuse section of the BIP.

- Telephonic or meeting interviews with major municipal suppliers to confirm data presented, describe activities and provide a comprehensive picture of progress on conservation goals.
- Update information on sub-regional conservation initiatives.

#### Water Supply Reserve Account – Application Form

Revised October 2013

• The Draft BIP requires additional quantitative data for a complete understanding of the basin's conservation profile. Redraft Section 4.3.

#### 4.4 New Multi-Purpose, Cooperative, and Regional Projects and Methods

The Draft BIP includes a summary of regional projects funded by the Arkansas BRT through the WSRA program. Sub-regions with self-funded multi-purpose projects will be contacted to obtain information for inclusion by the Consultants. This information should include cost estimates and the proportional costs that would be funded by each beneficiary of a multi-purpose project.

#### **Consultants Responsibilities**

#### Task 4.4 – Multi-Purpose Projects and Methods

The Consultants will review existing data and new information on planned and potential multi-purpose projects both structural and nonstructural..

- Identify and analyze multi-purpose, regional, and collaborative projects:
  - Cross check nonconsumptive, agricultural, and M&I IPPs to assist in coordination and possible integration
  - o Identify costs associated with making a project multi-purpose
- Document multipurpose projects and methods not currently included in the draft BIP

Revise Section 4.4

#### 4.5 M&I Projects and Methods

The Arkansas BRT will update its IPPs list for consumptive projects and methods.

#### **Consultants Responsibilities:**

#### Task 4.5: M&I Projects and Methods

The Consultants will review the input forms from the Public Outreach initiative for potential M&I projects both structural and nonstructural. Develop criteria for evaluation of projects to be considered in the Plan, including a Tiered ranking system. Review the Tiered ranking system with the Ark RT at a RT meeting, revise and provide to roundtable members.

- Organize meetings to determine additional projects and methods and alignment with disaggregated gap information
  - o Regionally and topically based
  - o Identify points of integration (i.e., interbasin, consumptive, and nonconsumptive)
  - o Identify and discuss issues with getting IPPs completed
  - o Coordinate stakeholders and project proponents
- Conceptualize projects and methods
  - o Complete Project Summary Sheets for all IPP's
- Redraft Section 4.5

#### 4.6 Agricultural Projects and Methods

The Arkansas BRT will identify agricultural water needs, supplies, and update sub-regional gaps. Develop a database of projects and describe IPP's, underway and planned, by entities not included in the current Draft BIP. Review potential projects and methods as described in the input forms from the Public Outreach initiative for inclusion in the Plan. ATMs will be included as potential projects to reduce the permanent transfer of agricultural water to other uses.

#### **Consultants Responsibilities**

#### Task 4.6: Agricultural Projects and Methods

The Consultants will review existing data provided by the analysis done in Section 2.2 to verify agricultural water needs, supplies, and gaps..

- Conceptualize agricultural and ATM new and planned projects and methods including cost estimates
- Identify the next steps to implement projects and methods
- Outreach to Ag sector, update irrigated lands in tributaries and sub-regions, define augmentation requirements for increasing agricultural efficiency
- Redraft Section 4.6

#### 4.7 Nonconsumptive Projects and Methods

The Arkansas BRT will identify possible new nonconsumptive projects and methods based on the input received from the Public Outreach initiative. The lists of projects received will be qualified and evaluated for inclusion in the Plan.

#### **Consultants Responsibilities:**

#### Task 4.7: Nonconsumptive Projects and Methods

Nonconsumptive Consultant will provide additional support related to nonconsumptive needs as follows:

- Update BIP text per comments on the draft BIP.
- Attend four Arkansas BRT meetings.
- Attend five nonconsumptive needs committee meetings.
- Attend three various meetings with CWCB, TNC, or others as needed.
- Attend bi-weekly conference calls with the nonconsumptive needs committee.
- Provide email updates to the nonconsumptive needs committee's stakeholders list.
- Support the completion, organization, and processing of the nonconsumptive needs IPP and projects and methods lists.

#### Water Supply Reserve Account – Application Form

Revised October 2013

- Prepare up to 20 one-page IPP summary sheets for nonconsumptive IPPs.
- Nonconsumptive related GIS mapping support, including data collection, data review, and the creation of new GIS maps.
- Support the Gap Analysis Framework by summarizing the process used by others to date and identification of future needs and steps to be conducted as part of SWSI 2016.
- Support the Flow Evaluation Tool by coordinating with the nonconsumptive needs committee, identifying data needs, determining future steps, and updating the draft BIP text accordingly.

### Section 5: Implementation Strategies for the Projects and Methods

The draft BIP identifies water management challenges and opportunities within the basin and provides a framework for meeting the challenges.

#### **Consultants Responsibilities**

#### Task 5.0 - Implementation Strategies

The Consultants will develop strategies for addressing the basin gaps in all topic areas

- Implement the steps articulated in the draft BIP Section 5 to process the input received from the Public Outreach initiative, identify other consumptive and nonconsumptive IPP's, projects and methods, and assess the IPP's against their ability to meet the basin's goals.
- The draft BIP describes some potential funding mechanisms. Research and provide greater detail, including coordination meetings with funding entities, to further expand funding alternatives.
- Outreach to funding entities, processing of input forms, coordination with sub-regional needs and gaps, redraft Section 5.0, revise/add to goals in Section 1.0

## Section 6: How the Plan Meets the Roundtable's Goals and Measurable Outcomes

This section questions whether the projects and methods identified in the Plan meet the gaps and water supply shortages, in relation to the goals and measurable outcomes.

#### **Consultants Responsibilities**

#### Task 6.0: Measurable Evaluation

The Consultants have provided the initial draft to the Arkansas BRT and will work with them to further refine this section.

- Facilitate meetings to further develop how well the Plan meets the measurable outcomes
- Redraft Section 6.0 based on changes to the balance of the Draft Plan above

### **Coordination and Reporting**

The Consultants will coordinate with the Arkansas BRT, the Executive Committee and its technical committees during the duration of this study and will provide a final Basin Implementation Plan report for deliver to CWCB.

#### **Consultants Responsibilities**

#### Task 7.0: Coordination with Arkansas BRT and Reporting

- Coordination with Arkansas BRT and technical team
- Prepare final Basin Implementation Plan (April 1, 2015)
- Reporting and presentation to third party groups, collection and collation of public input during Public Comment period (Jan Mar, 2015), travel to and meetings in sub-regions
- Photocopies for distribution at Ark RT meetings, project meetings, publish the Final BIP electronically and maintain the Drop Box through 2015.
- Consultants will support the Arkansas BRT by attending BRT meetings per the allowances provided in the attached budget.

#### **Budget/Costs**

Arkan	sas Basin Implementation Plan - Phase Two				
	Total Costs	Project Manager	Consumptive	Nonconsumptive	Total
Task	Description	Cost	Cost	Cost	Cost
Task 0.0	Excutive Summary	\$ 2,400	\$ -	\$ -	\$ 2,400
Task 1.0	Goals and Measurable Outcomes	\$ 2,400	\$ 3,600	\$ -	\$ 6,000
Task 2.1	Nonconsumptive Needs	\$ 600	\$ -	\$ 4,000	\$ 4,600
Task 2.2	Consumptive Needs	\$ 2,400	\$ 12,600	\$ -	\$ 15,000
Task 3.1	Constraints and Opportunities Based on Input Received in Phase 1	\$ 2,400	\$ 10,000	\$ -	\$ 12,400
Task 3.2	Water Administration	\$ -	\$ -	\$ -	\$ -
Task 3.3	Hydrologic Modeling	\$ -	\$ -	\$ -	\$ -
Task 3.4	Shortage Analysis (Conflicts) Mapping based on Input Receive in Phase 1	\$ -	\$ 15,000	\$ -	\$ 15,000
Task 4.1	Education, Participation, and Outreach	\$ 9,334	\$ 9,333	\$ 9,333	\$ 28,000
Task 4.2	Watershed Health	\$ 1,200	\$ -	\$ -	\$ 1,200
Task 4.3	Conservation and Reuse Projects and Methods	\$ 1,200	\$ 10,000	\$ -	\$ 11,200
Task 4.4	New Multi-Purpose, Cooperative, and Regional Projects and Methods	\$ 3,600	\$ 11,400	\$ -	\$ 15,000
Task 4.5	M&I Projects and Methods	\$ 4,000	\$ 11,400	\$ -	\$ 15,400
Task 4.6	Agricultural Projects and Methods	\$ 4,000	\$ 19,000	\$ -	\$ 23,000
Task 4.7	Nonconsumptive Projects and Methods	\$ 1,200	\$ 19,000	\$ 47,500	\$ 67,700
Task 4.8	Interbasin Projects and Methods (EPAT)	\$ -	\$ 5,000	\$ -	\$ 5,000
Task 5.0	Implementation Strategies	\$ 6,000	\$ 14,000	\$ -	\$ 20,000
Task 6.0	Measurable Evaluation	\$ 3,600	\$ 8,000	\$ -	\$ 11,600
Task 7.0	Coordination with Arkansas BRT and Reporting	\$ 18,000	\$ 18,000	\$ 18,000	\$ 54,000
	Other Direct Charges (Expenses)	\$ 2,400	\$ 2,400	\$ 1,500	\$ 6,300
	Total Cost:	\$ 64,734	\$ 168,733	\$ 80,333	\$ 313,800

#### **Breakdown of Hourly Rates**

#### Consumptive Consultant (estimate of hourly rates)

Project	Principal	Sr Eng/Geo.	Proj. Eng/Geo	Staff Eng/Geo	Clerical/Drafting
Director					

\$	200	\$	175	\$	150	\$	130	\$	100	\$	85

### Nonconsumptive Consultant (estimate of hourly rates)

P	Project Engineer 4		Engineer 3			Engineer 2			Engineer 1			Clerical/Drafting					
M	<b>I</b> anagei	: 4	_														
	\$	180		\$	130		\$	150		\$	105		\$	99		\$	78
В	iologis	t	Sı	r. Edito	or	E	ditor										
			G	raphic	S	G	raphic	S									
	\$	84		\$	140		\$	90									

#### <u>Project Manager</u>

\$150/hour

#### Schedule

Task	Description	NTP to NTP + 30	NTP + 90	NTP + 180
Task 0.0	Excutive Summary			
Task 1.0	Goals and Measurable Outcomes			
Task 2.1	Nonconsumptive Needs			
Task 2.2	Consumptive Needs			
Task 3.1	Constraints and Opportunities Based on Input Received in Phase 1			
Task 3.4	Shortage Analysis (Conflicts) Mapping based on Input Receive in Phase 1			
Task 4.1	Education, Participation, and Outreach			
Task 4.3	Conservation and Reuse Projects and Methods			
Task 4.4	New Multi-Purpose, Cooperative, and Regional Projects and Methods			
Task 4.5	M&I Projects and Methods			
Task 4.6	Agricultural Projects and Methods			
Task 4.7	Nonconsumptive Projects and Methods			
Task 5.0	Implementation Strategies			
Task 6.0	Measurable Evaluation			
Task 7.0	Coordination with Arkansas BRT and Reporting			