Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 24, 2013
Agenda Item 18(n)

Applicant: Pikes Peak Regional Water Authority

Water Activity Name: Regional Water Infrastructure Feasibility Study

Water Activity Purpose: Needs Assessment

County: El Paso

River Basin: Arkansas

Water Source: n/a

Amount Requested: $50,000 (Statewide Account) & $25,000 (Arkansas Basin Account)

Matching Funds: $167,000 Total Match: $88,500 cash (37% - PPRWA Members) and $78,500 in-kind (32% - PPRWA Members, Colorado Springs Utilities, and El Paso County)

Staff Recommendation:
Staff recommends approval of up to $50,000 from the Statewide Account and $25,000 from the Arkansas Basin Account to fund the Pikes Peak Regional Water Authority - Regional Water Infrastructure Feasibility Study.

Water Activity Summary: The water providers involved are heavily dependent on nonrenewable Denver Basin groundwater in an area which represents the largest M&I gap in the Arkansas Basin, which is expected to worsen in the future. The intent of this cooperative effort is to identify the critical water supply objectives of each participant, identify and analyze possible joint water projects to meet those objectives, and plan for the necessary actions to develop the more promising projects. The study will proceed in the following order:

1. Refining project objective and establishing study protocols
2. Literature review of existing studies; preliminary analysis and summary of participants projected water demands and available supplies; development of a partnering matrix exhibiting existing infrastructure, common priorities, and infrastructure needs; drafting of Summary Report for review that explores possible cooperative project opportunities and constraints; detailed analysis of selected projects based on participant feedback that includes conceptual cost estimates, timelines, and a closer examination of benefits and potential obstacles; mapping will be developed to assist in the study and to communicate findings to participants and other stakeholders.
3. Organization of Preliminary Development of Alternatives based on the following geographical areas and operational considerations:
    a. Area 1 – Pueblo Reservoir to South Fountain
    b. Area 2 – South Fountain to Black Forest
    c. Area 3 – Black Forest to Palmer Divide
    d. Reuse
    e. Other Exchange or Trade Opportunities
    f. Other Proposed Regional and State Water Projects

4. Project work session to clarify objectives, preferences, goals to focus on promising alternatives for further detailed analysis
5. Perform Feasibility Studies on remaining projects resulting in project implementation recommendations.

Threshold and Evaluation Criteria:
The application meets all four Threshold Criteria.

Funding/Match Summary:

	Cash	**In-Kind**	**Total**
WSRA Statewide Account	$50,000	$0	$50,000
WSRA Arkansas Basin Account	$25,000	$0	$25,000
Cherokee Metro District	$30,000	$24,000	$54,000
Colorado Springs Utilities	$0	$8,400	$8,400
Donala Water & Sanitation	$10,000	$3,000	$13,000
El Paso County	$0	$5,100	$5,100
City of Fountain	$4,500	$8,000	$12,500
Town of Monument	$10,000	$9,500	$19,500
Town of Palmer Lake	$1,500	$1,500	$3,000
Triview Metro District	$2,500	$1,500	$4,000
Woodmoor Water & Sanitation District	$30,000	$17,500	$47,500
Total Project Costs	**$163,500**	**$78,500**	**$242,000**

The application articulates how the project meets the Evaluation Criteria as summarized below:

Tier 1: Promoting Collaboration/Cooperation & Meeting Water Management Goals & Identified Needs:

a. Potential of utilizing shared infrastructure contributes to conservation efforts by minimizing system loses, and avoids the environmental impact of developing and operating multiple systems, thereby benefiting consumptive M&I uses and nonconsumptive environmental and recreational uses.
b. The current study effort demonstrates a high degree of cooperation and collaboration among nine traditional consumptive water interests while also extending the possibility of expanded cooperation and collaboration in the future during project design, construction and operational phases.
c. This water activity helps meet Colorado's future water needs by implement identified projects and process, such as reuse, maximizing existing water rights, exchanges, and active conservation by minimizing system loses through shared infrastructure.

Tier 2: Facilitating Water Activity Implementation:

d. WSRA funding increases the level of cooperation among the participants because no other grant funding source has been found, and allows this project to be as comprehensive as it must be in order to produce a significant impact on the region's water future.
e. Participants' cash and in-kind matching contribution of $167,000 of total study costs of $242,000 (representing 69% of total study costs), demonstrate a significant and appropriate commitment to the project by the applicant.

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

f. n/a
g. n/a
h. n/a

i. n/a
j. n/a

Discussion:
No additional discussion is needed.

Issues/Additional Needs:
No additional issues or needs were identified.

Staff Recommendation:
Staff recommends approval of up to $50,000 from the Statewide Account, and $25,000 from the Arkansas Basin Account for project titled: Peak Regional Water Authority - Regional Water Infrastructure Feasibility Study.

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 and Final Deliverable: 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. 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.


DOUGLAS
EL PASO
MONUMENT
BLACK
FOREST
SUNDANCE
PIPELINE
WTP

Arkansas Basin Roundtable
P.O. Box 1976
Colorado Springs, CO 80901

August 1, 2013

Jacob Bornstein
Colorado Water Conservation Board
Water Supply Planning Section
1580 Logan Street, Suite 200
Denver, Colorado 80203

Re: Regional Water Supply Infrastructure Feasibility Study

Dear Jacob:

Under separate cover you have received a WSRA grant application for the Regional Water Supply Infrastructure Feasibility Study. At the June 12, 2013, Arkansas Basin Roundtable meeting, the Roundtable agreed by consensus to approve this application for $25,000 in Basin Funds and $50,000 in Statewide Funds.

Roundtable members were unanimous in their consent, with no minority opinions expressed.

My expectation is that this grant request will be heard at the September, 2013 CWCB meeting. I apologize for the delay in forwarding this letter of approval. Please do not hesitate to contact me if you have any questions.

Sincerely,

Gary Barber
Chair

c: Executive Committee, Ark Roundtable

COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

REGIONAL WATER SUPPLY INFRASTRUCTURE FEASIBILITY STUDY

Name of Water Activity/Project

PIKES PEAK REGIONAL WATER AUTHORITY

Name of Applicant

Arkansas Basin Roundtable

Amount from Statewide Account: $50,000

Amount from Basin Account(s): $25,000

Total WSRA Funds Requested: $75,000

Approving Basin Roundtable(s)
(If multiple basins specify amounts in parentheses.)

Application Content

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: http://cwcb.state.co.us 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: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf

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:

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

Water Supply Reserve Account – Application Form
Revised December 2011

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

1.	Applicant Name(s):	Pikes Peak Regional Water Authority		
	Mailing address:	231 Security Blvd. Colorado Springs, CO 80911		
	Taxpayer ID#:	84-1428849		
	Primary Contact:	Sean Chambers	Position/Title:	Board President
	Email:	schambers@cherokeemetro.org		
	Phone Numbers:	Cell: 719-499-5430	Office:	719-597-5080
	Alternate Contact:	Elise Bergsten	Position/Title:	Manager
	Email:	elise@dmsc.us		
	Phone Numbers:	Cell: 719-963-1809	Office:	719-634-8980

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

[ ] Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.

[x] Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.

[ ] Private Incorporated – mutual ditch companies, homeowners associations, corporations.

[ ] Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.

[ ] Non-governmental organizations – broadly defined as any organization that is not part of the government.

3. Provide a brief description of your organization

Pikes Peak Regional Water Authority is a water authority, a body corporate and politic, a separate governmental entity, a political subdivision and a public corporation of the State of Colorado, pursuant to Section 18(2)(a) and 2(b) of Article XIV, Constitution of the State of Colorado, and to § 29-1-204.2, Colorado Revised Statutes.

PPRWA currently has twelve voting members and four associate members. The Authority meets the first Wednesday monthly in the Centennial Hall, Commissioner's Pikes Peak Conference Room #114, 200 S. Cascade Avenue, Colorado Springs, Colorado 80903. Meetings are open to the public.

The purpose of the Authority is to effect the development of water resources, systems, and facilities and/or drainage facilities in whole or in part for the benefit of the Members and their inhabitants, and others; in short, to implement regional solutions to water supply issues.

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

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.

[x] 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 Payer 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. N/A

Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

	Nonconsumptive (Environmental or Recreational)
	Agricultural
	Municipal/Industrial
x	Needs Assessment
	Education
	Other Explain:

2. If you feel this project addresses multiple purposes please explain.

This study addresses the municipal/industrial gap through regional collaboration around shared infrastructure, the possibility of reuse, and system interconnections that will facilitate exchange or trade opportunities. Increased efficiency and conservation will result. Nonconsumptive environmental and recreational benefits, although impossible to quantify at this point, will also result.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

x	Study		Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)
	Existing Storage Preserved or Enhanced (acre-feet)
	Length of Stream Restored or Protected (linear feet)
	Length of Pipe/Canal Built or Improved (linear feet)
	Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)
	Area of Restored or Preserved Habitat (acres)
	Other -- Explain:

4. To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude:	From: 39.092299 To: 38.267298	Longitude:	From: -104.862549 To: -104.723225

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.

Water providers from central to northern El Paso County are heavily dependent on nonrenewable Denver Basin groundwater to meet current water demands. Water supply here is shrinking, demand is increasing, and this area is already water-short. This region represents the largest M&I gap in the Arkansas Basin; a critical municipal supply gap in this area could exist as early as the year 2020.

The common need for sustainable water supplies and the geographic proximity of these providers create opportunities for developing regional water supply and delivery projects. By sharing resources, objectives, and focus in joint regional projects, the participating water providers can better address growing water demands in the years ahead.

The intent of this cooperative effort is to identify the critical water supply objectives of each of the participants, identify and analyze possible joint water supply projects to meet those objectives, and plan for the necessary agreements and actions to develop the more promising projects. The Study is a follow-up to the Water Infrastructure Planning Study (WIPS) completed for the Pikes Peak Regional Water Authority (PPRWA) in 2008.

1. The project will begin by refining project objectives and establishing study protocols.
2. Preliminary analysis will include meetings with individual participants and literature review. From this information, a summary of projected water supply needs will be developed that focuses on projected water demands and anticipated water availability. A partnering matrix will be prepared that shows existing infrastructure, common priorities, and infrastructure needs. Possible cooperative project opportunities and constraints will be explored and summarized in a report for review and comment. Based on participant feedback, a more detailed analysis will be made of projects selected by the participants, including conceptual cost estimates, timelines, and closer examination of benefits and potential obstacles. Mapping will be used to assist in the study and to communicate findings to participants and other stakeholders.
3. Preliminary Development of Alternatives will be organized according to the following geographical areas and operational considerations:
    a. Area 1 – Pueblo Reservoir to South Fountain
    b. Area 2 – South Fountain to Black Forest
    c. Area 3 – Black Forest to Palmer Divide
    d. Reuse
    e. Other Exchange or Trade Opportunities
    f. Other Proposed Regional and State Water Projects
4. A project work session will be held after the above tasks are completed, in order to clarify objectives, preferences, goals, and to further narrow down the number of alternatives to carry forward for more detailed analysis.
5. Projects still under consideration will undergo a Feasibility Study, which will result in recommendations for project implementation.

Part III. – Threshold and Evaluation Criteria

1. Describe how 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.[1]

   The project will not supersede, abrogate, or otherwise impair the State's current system of allocating water within Colorado nor does it in any manner repeal or amend the existing water rights adjudication system. The project does not affect the State Constitution's recognition of water rights as a private usufructuary property right nor is it 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.

   b) The water activity is undergoing an evaluation and approval process by the Arkansas Basin Roundtable.

   c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.[2] 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 project is a detailed Needs Assessment study for a crucial water-short area within the Arkansas Basin. It will ascertain the best use of available resources and propose collaborative structural projects that will assist in meeting the infrastructure and water supply needs of the Arkansas Basin.

[1] 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.

[2] 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.

d) Matching Requirement: For requests from the **Statewide Fund**, the applicants is required to demonstrate a **20 percent** (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of **5 percent** of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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)

REGIONAL FEASIBILITY STUDY			
PIKES PEAK REGIONAL WATER AUTHORITY			
PROJECT FUNDING SUMMARY	**Dollars**	**In-Kind**	**Total Support**
Cherokee Metro District	$ 30,000	$ 24,000	$ 54,000
Colorado Springs Utilities	$ -	$ 8,400	$ 8,400
Donala Water & Sanitation District	$ 10,000	$ 3,000	$ 13,000
El Paso County	$ -	$ 5,100	$ 5,100
City of Fountain	$ 4,500	$ 8,000	$ 12,500
Town of Monument	$ 10,000	$ 9,500	$ 19,500
Town of Palmer Lake	$ 1,500	$ 1,500	$ 3,000
Triview Metro District	$ 2,500	$ 1,500	$ 4,000
Woodmoor Water & Sanitation District	$ 30,000	$ 17,500	$ 47,500
WSRA Basin Funds	$ 25,000		$ 25,000
WSRA Statewide Funds	$ 50,000		$ 50,000
	$ 163,500	**$ 78,500**	**$ 242,000**

2. For Applications that include a request for funds from the **Statewide Account**, describe how 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.**

Evaluation Criteria – 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.

Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs

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.
    - Municipal/Industrial Gap – projects that account for and maximize the possibility of reuse, trades, exchanges, and better use of return flows. Shared infrastructure will allow new solutions to be implemented by water-short providers in the region.
    - Efficiency/Conservation – shared infrastructure leads to water savings, allowing for more efficient use of available water.
    - Environment – shared infrastructure avoids the monetary and environmental cost of developing and operating multiple systems. Increases potential to minimize disturbances to wetlands and threatened and endangered species habitat.
    - More efficient use of water in this region potentially frees up water for Ag, Recreation and other M/I and downstream users. Improved instream flows may result, enhancing environmental attributes in the Arkansas River.

   Solving water issues of this region with a collaborative approach to needed infrastructure will impact the entire Arkansas Basin and the State of Colorado. It will lessen negative impacts to Agriculture, Recreation and the Environment. It will narrow the M&I gap and it will prepare water providers in the region with a clear path forward to specific shared infrastructure projects that will benefit the widest group of water providers and users.

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.
    - Eight water providers, in cooperation with El Paso County, will directly contribute to this water activity, which analyzes intrabasin water needs, existing infrastructure and possibilities for future cooperation on water projects.

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.
    - This water activity addresses a critical gap area between available water supply and future need.

Tier 2: Facilitating Water Activity Implementation

d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).
    - Funding from Basin and Statewide funds allows this project to be as comprehensive as it must be in order to produce a significant impact on the region's water future.
    - No other potential grant source has been found.

e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.
    - The eight water providers participating in the activity have funded 69% of the total cost of this project.

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

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

g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance.

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

i. The water activity is complimentary to or assists in the implementation of other CWCB programs, including the Arkansas Basin Roundtable's input to the State Water Plan, and their continued efforts to implement projects and methods to meet the needs of the basin.

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.

This project will provide a piece of the path forward to a sustainable water future for the selected region. It is a study, and therefore will not affect water rights, water rights issues, or specific water bodies. The study will conclude with a recommendation of various possible water projects, and will take a Feasibility Study level's look at potential water rights issues of those projects.

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

WIPS - Water Infrastructure Planning Study: Completed in 2008, this study focused on efficiencies achieved through cooperation between WIPS participants, which included Donala WSD, Town of Monument, Town of Palmer Lake, Triview MD and Woodmoor WSD (some, but not all of the current project participants). WIPS assumed that a renewable water supply would be available by 2020, and aimed to fill the interim need of the participants. WIPS recommended implementing efficiency programs including indirect potable reuse (IPR), well field optimization, interim supply planning, a follow-up study, a backbone water line connecting participants, increased storage, and renewable water supply alternatives. WIPS stressed the benefit to project members of shared infrastructure for transmission and storage of water, infrastructure that would connect participants and increase opportunities for collaborative water use.

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 attachment.

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 5 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: Sean P. Chambers

Print Applicant's Name: Sean Chambers, Chair Pikes Peak Regional Water Auth.

Project Title: Regional Water Supply Infrastructure Feasibility Study

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

Greg Johnson – WSRA Application
Colorado Water Conservation Board
1580 Logan Street, Suite 200
Denver, CO 80203
gregory.johnson@state.co.us

Exhibit A

Statement of Work

WATER ACTIVITY NAME - Regional Water Supply Infrastructure Feasibility Study

GRANT RECIPIENT – Pikes Peak Regional Water Authority (PPRWA)

FUNDING SOURCE - Basin/Statewide Funds

INTRODUCTION AND BACKGROUND

Water providers from central to northern El Paso County are heavily dependent on nonrenewable Denver Basin groundwater to meet current water demands. Water supply here is shrinking, demand is increasing, and the area is already water-short. This region represents the largest M&I gap in the Arkansas Basin; a critical municipal supply gap in this area could exist as early as the year 2020.

The common need for sustainable water supplies and the geographic proximity of these providers create opportunities for developing regional water supply and delivery projects. By sharing resources, objectives, and focus in joint regional projects, the participating water providers can better address growing water demands in the years ahead.

OBJECTIVES

The intent of this cooperative effort is to identify the critical water supply objectives of each of the participants, identify and analyze possible joint water supply projects to meet those objectives, and plan for the necessary agreements and actions to develop the more promising projects. The Study is a follow-up to the Water Infrastructure Planning Study (WIPS) completed for the Pikes Peak Regional Water Authority (PPRWA) in 2008, although the number and range of project participants has increased.

TASKS

Task 1 – Scoping Meeting and Project Objectives

Description of Task

The project will begin by refining the overall project objectives and scope.

Method/Procedure

A scoping meeting with all participants will be held to establish those objectives and limits for the study, and the levels of analysis to be performed within the constraints of budget and schedule. The scoping meeting will also be used to establish study and communication protocols to ensure effective coordination and communication throughout the study process. Forsgren Associates, Inc. will facilitate this task.

Task Deliverable: Electronic version of final scope and protocols.

Task 2 – Preliminary Analysis

Description of Task

This task includes a review of several documents providing important background information, individual entity meetings, a needs assessment, and the development of operations, infrastructure, and priorities summaries for each participant. Meetings with key nonparticipants will also be held in order to include their information for regional context.

Method/Procedure

2.1 Literature Review:

- Sources of Water and Nitrogen to the Widefield Aquifer, Southwestern El Paso County (USGS, 1985)
- Draft Feasibility Study for Interconnection of the Monument and Palmer Lake Water System (Black & Veatch, January 1998)
- Draft Final, El Paso County Water Report, El Paso County Water Authority (September 2002)
- Upper Black Squirrel Creek Basin Study (Colorado Geological Survey, 2006)
- Arkansas River Pipeline Study (Boyle Engineering, 2007-8), prepared for PPRWA
- Study of Alluvial Storage in the Arkansas Basin (CDM, 2007)
- WIPS prepared for the PPRWA (February 2008)
- Arkansas Basin Consumptive Use Needs Assessment (Applegate Group, July 2008)
- Arkansas Basin Nonconsumptive Needs Assessment Mapping (Arkansas Basin Roundtable)
- Considerations for Agriculture to Urban Water Transfers (Arkansas Basin Roundtable, September 2008)
- Water Supply and Needs Report for the Arkansas Basin (CDM, Modified August 2009)
- Projects & Methods to Meet the Needs of the Arkansas Basin (Arkansas Basin Roundtable, November 2009)
- Arkansas SWSI 2010 Basin Report (CDM)
- Pikes Peak Area Water Quality Management Plan (PPACG, 2010)
- Arkansas River Basin Plan, Statewide Water Quality Management Plan (CDPHE, June 13, 2011)
- Arkansas River Decision Support System Feasibility Study (Brown and Caldwell, December 2011)
- Widefield Aquifer Management Program (Presentation by WW Wheeler & Assoc.)

2.2 Individual Entity Meetings.

Forsgren Associates, Inc. will meet with managers and system operators from each participant to document current water supply system operations, obtain water supply system maps, identify their objectives and

concerns with water supply delivery, and discuss any plans for future changes in operations. They will also meet with key nonparticipants, such as Colorado Springs Utilities, to find out about their supply systems, infrastructure, and planning to include in the Study for regional context.

2.3 Needs Assessment.

Forsgren Associates, Inc. will develop a preliminary summary of projected water supply needs for all participating providers. The projection will focus on anticipated water availability and sources, as well as projected water demands in the years 2035 and 2050.

2.4 Operations, Infrastructure, and Priorities Summary.

Each entity's operations, basic infrastructure, needs and priorities will be summarized and compared, and a "partnering matrix" will be created showing the major water storage, treatment, and transmission components that each participant could "bring to the table" for cooperative water supply efforts. This information will be used to summarize data gaps, identify common priorities, identify possible joint and regional water supply projects and other cooperative opportunities ("alternatives"), and identify known significant political, technical or legal hurdles for the alternatives. This information will be presented to participants in a draft system summary report and partnering matrix for review and comment.

Based on that input, further analyses of the more promising alternatives and variations chosen by the participants will be performed, including pros and cons, potential obstacles, conceptual costs, and conceptual timelines as further described in Task 3.

2.5 Coordination with Agencies.

The success of any of the anticipated alternatives will depend on coordination with regulatory and funding agencies at key stages of the study. The proposed effort will include coordination with the Colorado Water Conservation Board (CWCB), the Arkansas Basin Roundtable, and the U.S. Bureau of Reclamation.

2.6 Mapping.

Forsgren will compile maps of existing and planned water supply system components from individual participants, and use those overlays to consider opportunities to optimize supplies through regional cooperation. They will also obtain GIS mapping that is available at no charge from El Paso County, including general land-use information. The County may offer additional GIS data as an in-kind contribution, given that the Study is intended to promote regional water security for a large constituency of the County. This data may include aerial mapping, elevation contours, and parcel information.

Forsgren will use GIS to layer a regional map by groupings of features. For example, one layer could show a system of water storage reservoirs connected by creeks and the Arkansas River. Another could show a system of alluvial groundwater storage sites and their connections. In addition, Forsgren will prepare a layered map with clear overlays of each system for use in presenting the Study concepts to decision-makers and customers.

Task Deliverable: Draft system summary report, draft regional GIS map with layered features, and a draft display map.

Task 3 – Preliminary Development of Alternatives

Description of Task

Using the draft system summary report, selected alternatives for future water supply delivery will be developed. The alternatives will be organized according to the following geographical areas and operational considerations:

Method/Procedure

3.1 Area 1-Pueblo Reservoir to South Fountain.

Development of potential alternatives may include:

- Identification of potential water supplies with consideration of storage needs.
- Cooperative arrangements with the six parties of the IGA that operate storage at the confluence of Fountain Creek and the Arkansas River to pass return flows or operate upstream exchanges.
- Consideration of alluvial storage at Stonewall Springs along the Arkansas River.
- Means of participation in the SDS for delivery of Arkansas River water to the subject area, possibly using off-peak capacity.
- How WWSD's planning for development of JV Ranch could be integrated into delivery of water supply to other participants in northern El Paso County.
- Consideration of expanding gravel pit storage in the area of the Fountain Pit.
- Preliminary identification of necessary permits, legal limitations, costs, and potential agreements.

3.2 Area 2-South Fountain to Black Forest.

- The SDS Pipeline will terminate at a new water treatment plant in the Cherokee Metro District (CMD) service area.
- CMD is acquiring a dedicated corridor between their service area and Sundance Ranch, in the Black Forest area, to construct a new water transmission pipeline. The pipeline will convey Denver Basin groundwater to CMD from their new satellite wellfield at Sundance Ranch.
- Infrastructure in this corridor may be available to share or for transfer to another entity should other water supply options become available to CMD. Potential would be evaluated for use of this new waterline to convey water to other entities (either direction) and the potential for use of Sundance Ranch water by other entities, possibly as a drought or transitional supply.
- Other entities with infrastructure adjacent to this corridor may have interest in participating in a regional system that enhances the ability to move water through, or to, this corridor. The potential will be evaluated for shared use of other infrastructure in the area of this corridor.
- An alternative will be developed for installation of a new transmission line to facilitate delivery of water through this corridor from sources south of CMD.

3.3 Area 3-Black Forest to Palmer Divide.

- Analysis of up to three routes for delivery of water from the Black Forest area to a central point in northern El Paso County near the Palmer Divide.
- Preliminary identification of necessary permits, legal limitations, costs, and potential agreements.
- Requirements for delivery to northern El Paso County water systems, including evaluation of potential costs and modifications to operations necessary to get the water from transmission and into the individual systems.

3.4 Reuse.

- The participants in this study use Denver Basin groundwater as part of their water supply portfolio. That water serves as a fully consumable resource that can be optimized through reuse or exchange, or used to augment surface supplies.
- Some water providers have already implemented reuse irrigation. Additional opportunities will be considered based on the costs and benefits of local reuse vs. downstream exchanges, and the balancing act of local reuse costs vs. downstream transit losses.
- Methods and costs of local reuse within a jurisdiction
- Methods and costs of reuse, exchange, or augmentation within the corridors identified in Areas 1, 2, and 3.

- The value of this resource as a means of trading for Arkansas River water with possible delivery from Pueblo Reservoir, or sale to Arkansas Basin irrigators to augment their alluvial well production.
- Strategies to further develop the spot market for sale of return flows or excess water to Arkansas Valley farmers or irrigation augmentation groups.
- Water accounting practices for possible optimization based on interviewing representatives of the Division of Water Resources, Colorado Springs Utilities, Pueblo Board of Water Works, and the Arkansas Groundwater Users Association.
- The Fountain Creek transit loss model maintained by the USGS.

3.5 Other Exchange or Trade Opportunities.

- The participants in this study, some of whom share system interconnections, may have opportunities to optimize their infrastructure investments through trading renewable water supplies
- Entities that could benefit from a trade or exchange of water.
- The core delivery infrastructure that would be necessary.
- Additional system interconnects.
- Municipal code, charter requirements, and policies of the City of Colorado Springs and Colorado Springs Utilities (as determined by the Utility Policy Advisory Committee, UPAC) that could affect the ability to include use of their infrastructure as part of the trade or exchange strategy.

3.6 Other Proposed Regional and State Water Projects.

- Study participants may have interests in a variety of other water supply projects to benefit the region, such as agricultural transfers, Greenland Ranch, Blue Mesa, and Flaming Gorge. The study will include a brief overview of those projects of interest. The study will also identify how those water supply projects could be integrated with the regional water supply infrastructure envisioned for Areas 1 - 3.

Task Deliverable: Revised draft section describing preliminary assessment of alternatives.

Task 4 – Project Work Session

Description of Task

The objective of the work session will be to clarify objectives, preferences, and goals for the project and further narrow down the number of alternatives to carry forward for more detailed analysis so that the remaining analyses can be focused and efficient.

Method/Procedure

The preliminary assessment will be presented by Forsgren Associates Inc. for review and discussion at a Project Work Session.

From the Project Work Session, and follow up meetings if necessary, participants will develop up to six alternative actions incorporating part or all of each focus area on which to complete a detailed evaluation.

Task Deliverable: Presentation materials for Work Session. Meeting minutes documenting discussion and decisions.

Task 5 – Develop Feasibility Study

Description of Task

The results of the data review, preliminary analysis, and work session will be used to complete the analysis of the six alternatives. It is anticipated that the proposed feasibility study will include the following for each alternative analyzed.

Method/Procedure

5.1 – 5.4 Alternatives Development, Prioritization of Preferred Alternative, Life-Cycle Cost Analysis, Final Cost Estimates and Water System Financing

We will use the following information to rank alternatives and provide recommendations for implementation.

1. Statutory compliance with water rights and state water policy.
    a. Recommend technical and legal activities necessary for compliance of proposed action.
    b. Develop costs for inclusion in project cost estimate.
2. Ability of proposed water source to meet availability, quantity, and timing requirements.
3. Water quality and related costs/tradeoffs.
4. Technical feasibility.
    i. Route availability and easement/ROW needs.
    ii. Known surface and subsurface conditions for proposed site/route.
    b. System capacity requirements (with associated preliminary design and cost estimates).
5. Environmental/permitting issues.
6. General qualitative effects on nonconsumptive uses such as environmental and recreational value.
7. Financial feasibility including capital, O&M, and cost recovery.
8. Funding availability.
9. Facilities management methods and requirements.

5.5 Presentation to Boards

A summary of the study findings, alternatives analysis, and proposed study recommendations will be presented to each of the participating water purveyors. The presentation will provide a forum for participating entities to clarify findings and give input on study recommendations.

5.6 Presentation/Coordination with Arkansas Basin Roundtable

A summary of the study findings, alternatives analysis, and study recommendations will be presented to the Arkansas Basin Roundtable. Forsgren will also coordinate with the Roundtable to provide the Study results as part of the Roundtable's input to the State Water Plan.

5.7 Study Recommendations

Based on the project findings and input from the presentation to boards, recommendations will be prepared for project implementation, including timeline and budget.

5.8 Finalize Study

Task Deliverables: Draft Water Supply Feasibility Study document, Final Regional Water Supply Feasibility Study document, Presentation for participant boards and Arkansas Basin Roundtable (electronic file), finalized GIS map with layered features, and finalized display map with overlays.

Task 6 – Project Administration

Description of Task

Administration and grant accounting.

Method/Procedure

Balanced Management Services Co. will provide services.

Task Deliverable: Invoicing and Project Deliverables coordinated with CWCB.

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

Signature of Applicant:

Applicant's Name: Pikes Peak Regional Water Authority

Project Title: **REGIONAL WATER SUPPLY INFRASTRUCTURE FEASIBILITY STUDY**

BUDGET - REGIONAL WATER SUPPLY INFRASTRUCURE FEASIBILITY STUDY

BUDGET BY FUNDING SOURCE

Task #	Task Description	Matching Funds	Grant Funds	Total Expense
1	**SCOPING MEETING AND PROJECT OBJECTIVES**	$ 2,820		$ 2,820
2	**PRELIMINARY ANALYSIS**			
2.1	Literature Review	$ 8,560		$ 8,560
2.2	Individual Entity Meetings	$ 11,975	$ 9,855	$ 21,830
2.3	Needs Assessment	$ 5,305	$ 5,305	$ 10,610
2.4	Operations, Infrastructure, and Priorities Summary	$ 11,990	$ 11,990	$ 23,980
2.5	Coordination with Agencies	$ 2,025	$ 2,025	$ 4,050
2.6	Mapping	$ 1,785	$ 1,785	$ 3,570
3	**PRELIMINARY DEVELOPMENT OF ALTERNATIVES**			
3.1	Area 1-Pueblo Reservoir to South Fountain	$ 6,125	$ 6,125	$ 12,250
3.2	Area 2-South Fountain to Black Forest	$ 3,255	$ 3,255	$ 6,510
3.3	Area 3-Black Forest to Palmer Divide	$ 4,775	$ 4,775	$ 9,550
3.4	Reuse	$ 3,950	$ 3,950	$ 7,900
3.5	Other exchange or trade opportunities	$ 3,765	$ 3,765	$ 7,530
3.6	Other proposed regional and state water projects	$ 685	$ 685	$ 1,370
4	**PROJECT WORK SESSION**	$ 3,195	$ 3,195	$ 6,390
5	**FEASIBILITY STUDY**			
5.1	Alternatives development	$ 3,035	$ 3,035	$ 6,070
5.2	Prioritization of preferred alternatives	$ 1,895	$ 1,895	$ 3,790
5.3	Life-cycle cost analysis and final cost estimates	$ 1,160	$ 1,160	$ 2,320
5.4	Water system financing	$ 1,015	$ 1,015	$ 2,030
5.5	Presentation to boards	$ 1,620	$ 1,620	$ 3,240
5.6	Presentation/coord. with Arkansas Basin Roundtable	$ 1,765	$ 1,765	$ 3,530
5.7	Study recommendations	$ 1,455	$ 1,455	$ 2,910
5.8	Finalize Study	$ 4,845	$ 4,845	$ 9,690
6	**GRANT ADMINISTRATION**	$ 1,500	$ 1,500	$ 3,000
	Totals:	**$ 88,500**	**$ 75,000**	**$ 163,500**

TIMELINE - REGIONAL WATER SUPPLY INFRASTRUCURE FEASIBILITY STUDY

Task #	Task Description	Start	Finish	2013		2014											
				Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	**SCOPING MEETING AND PROJECT OBJECTIVES**	11/15/13	11/15/13														
2	**PRELIMINARY ANALYSIS**																
2.1	Literature Review	11/15/13	02/16/14														
2.2	Individual Entity Meetings	11/15/13	02/16/14														
2.3	Needs Assessment	01/15/14	03/20/14														
2.4	Operations, Infrastructure, and Priorities Summary	02/15/14	04/20/14														
2.5	Coordination with Agencies	02/15/14	04/20/14														
2.6	Mapping	02/15/14	04/20/14														
3	**PRELIMINARY DEVELOPMENT OF ALTERNATIVES**																
3.1	Area 1-Pueblo Reservoir to South Fountain	02/15/14	05/22/14														
3.2	Area 2-South Fountain to Black Forest	02/15/14	05/22/14														
3.3	Area 3-Black Forest to Palmer Divide	02/15/14	05/22/14														
3.4	Reuse	02/15/14	05/22/14														
3.5	Other exchange or trade opportunities	02/15/14	05/22/14														
3.6	Other proposed regional and state water projects	02/15/14	05/22/14														
4	**PROJECT WORK SESSION**	06/02/14	06/02/14														
5	**FEASIBILITY STUDY**																
5.1	Alternatives development	06/16/14	08/14/14														
5.2	Prioritization of preferred alternatives	06/16/14	08/14/14														
5.3	Life-cycle cost analysis and final cost estimates	06/16/14	08/14/14														
5.4	Water system financing	06/16/14	08/14/14														
5.5	Presentation to boards	08/17/14	09/06/14														
5.6	Presentation/coord. with Arkansas Basin Roundtable	08/17/14	09/06/14														
5.7	Study recommendations	08/17/14	09/06/14														
5.8	Finalize Study	09/17/14	10/17/14														
6	**GRANT ADMINISTRATION**	11/15/13	12/15/14														

DOUGLAS

ELBERT

EL PASO

MONUMENT

MONUMENT CREEK

BLACK FOREST

SUNDANCE PIPELINE

WOODMAN HILLS MD

CHEROKEE MD

FOUNTAIN CREEK

WIDEFIELD AQUIFER

FMIC CANAL

UPPER WILLIAMS CREEK RESERVOIR

CHILCOTT DITCH

WILLIAMS CREEK RESERVOIR

UPPER BLACK SQUIRREL CREEK BASIN

FOUNTAIN GRAVEL PIT

JV RANCH

CALHAN RESERVOIR

SDS PIPELINE

FOUNTAIN CREEK

CHICO CREEK

PUEBLO RESERVOIR

STONEWALL SPRINGS

ARKANSAS RIVER

ARKANSAS RIVER

TELLER

FREMONT

EL PASO

PUEBLO

Legend

WTP — WATER TREATMENT

PS — PUMP STATION

TANK

RESERVOIR

HEADGATE

WWTP RETURN FLOW

N W E S

FORSGREN Associates Inc.