

**Water Supply Reserve Account – Grant and Loan Program**  
**Water Activity Summary Sheet**  
**January 27-28, 2014**  
**Agenda Item 31(f)**

**Applicant:** Summit Reservoir and Irrigation Company

**Water Activity Name:** Evaluation of Potential Infrastructure Upgrades

**Water Activity Purpose:** Agriculture/Study

**County:** Dolores

**River Basin:** Southwest

**Water Source:** Lost Canyon Creek

**Amount Requested:** \$26,000 Southwest Basin Account

**Matching Funds:** \$6,000 cash match by Applicant (15% of total study costs of \$40,000), \$8,000 cash match by Southwestern Water Conservation District (20% of total study costs)

<b>Staff Recommendation:</b>
Staff recommends approval of up to \$26,000 from Southwest Basin Account to fund the study titled: Summit Reservoir and Irrigation Company s - Evaluation of Potential Infrastructure Upgrades.

**Water Activity Summary:** Currently, the company's largest storage reservoir, Summit Lake, is subject to a reservoir restriction imposed by the Colorado State Engineer's Office (SEO) due to safety issues with the dams, which limits the ability of the company to fully utilize their decreed storage within the reservoir. The restriction, written primarily for safety issues associated with dam and foundation seepage, limits the time period during which the reservoir can be within 1.1 feet of full storage to 21 continuous days of the filling season, resulting in a loss of up to 400 acre-feet of storage capacity at the time of the year when storage is most needed. Additionally, the main filling mechanism for Summit Lake, the Summit Ditch, which diverts flows from Lost Canyon Creek, is currently limited in its flow capacity to about 80 cfs due to hydraulic restrictions which have occurred over the years, a substantial reduction from its decreed diversion right of 135 cfs. Both issues affect the ability of SRIC to deliver irrigation water to downstream shareholders, who typically will receive only 50% of the full water demand for the arable acreage under production in any given year

WSRA Grant funds will be expended to achieve the objectives of the proposed activity, which are as follows:

1. Evaluate the work required and the estimated cost to repair/rehabilitate the dams at Summit Lake to allow for removal of the current reservoir restriction and to address other identified safety deficiencies with the dams.

2. Evaluate the work required and the estimated cost to repair/rehabilitate/upgrade the existing Summit Ditch, and its diversion structure in Lost Canyon, to allow it to convey the full decreed diversion right of 135 cfs.

3. Evaluate the annual impact of the current reservoir restriction on Summit Lake, with respect to the ability of SRIC to utilize its decreed storage and diversion rights to deliver available water to its shareholders. This would include a study of the flow regime in Lost Canyon, the availability of divertible flows, and the timing of diversions and reservoir releases.

*Threshold and Evaluation Criteria:*

The application meets all four Threshold Criteria.

*Funding/Match Summary:*

	<u>Cash (%)</u>	<u>Total (%)</u>
WSRA Southwest Basin Account	\$26,000 (15%)	\$26,000 (15%)
Southwestern Water Conservation District	\$8,000 (20%)	\$8,000 (20%)
Summit Reservoir and Irrigation Company	\$6,000 (15%)	\$6,000 (15%)
<b>Total Project Costs</b>	<b>\$40,000</b>	<b>\$40,000</b>

**Discussion:**

No additional discussion is needed.

**Issues/Additional Needs:**

No additional issues or needs were identified.

**Staff Recommendation:**

Staff recommends approval of up to \$26,000 from the Southwest Basin Account for the study titled: Summit Reservoir and Irrigation Company - Evaluation of Potential Infrastructure Upgrades.

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.

**SOUTHWEST BASINS ROUNDTABLE**

**Michael Preston, Chair**  
**c/o Dolores Water Conservancy District**  
**P.O. Box 1150**  
**Cortez, Colorado 81321**  
**970-565-7562**

November 14, 2013

Mr. Craig Godbout  
Water Supply Management Section  
Colorado Water Conservation Board  
1580 Logan Street, Suite 600  
Denver, Colorado 80203

SUBJECT: Summit Reservoir and Irrigation Company Evaluation of Potential  
Infrastructure Upgrades - \$26,000 from Basin Account

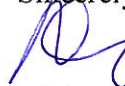
Dear Mr. Godbout:

The Southwest Basin Roundtable is pleased to recommend funding of \$26,000 from the Southwest Basin Account for Summit Reservoir and Irrigation Company Evaluation of Potential Infrastructure Upgrades. The application was considered in detail and approved at the November 14, 2013 meeting of the Southwest Basin Roundtable. There was a quorum of Roundtable members present.

Representatives of the Summit Reservoir and Irrigation Company appeared at the Basin Implementation Plan Workshop of July 10, 2013 to request inclusion of an IPP in the Basin Implementation Plan that encompasses the proposed project.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-565-7562, [mpreston@frontier.net](mailto:mpreston@frontier.net), if you have questions or wish to discuss this application in more detail.

Sincerely,



Michael Preston  
Southwest Basin Roundtable Chair



# COLORADO WATER CONSERVATION BOARD

## WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Evaluation of Potential Infrastructure Upgrades

### Name of Water Activity/Project

Summit Reservoir & Irrigation Company

### Name of Applicant

Southwest Basin  
Roundtable

Amount from Statewide Account:

\$0

Amount from Basin Account(s):

\$26,000

Total WSRA Funds Requested:

\$26,000

### Approving Basin Roundtable(s)

*(If multiple basins specify amounts in parentheses.)*

### Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 8
Part IV – Required Supporting Material	
Water Rights, Availability, and Sustainability	page 12
Related Studies	page 13
Signature Page	page 15

### Required Exhibits

- A. Statement of Work, Budget, and Schedule
- B. Project Maps
- 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)

## Water Supply Reserve Account – Application Form

Revised December 2011

---

### **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](mailto: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](mailto: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):	Summit Reservoir & Irrigation Company		
	Mailing address:	PO Box 127 Dolores, CO 81323		
	Taxpayer ID#:	84-0331430		
	Primary Contact:	David Sanford	Position/Title:	Secretary/Treasurer
	Email:	Sanford@fone.net		
	Phone Numbers:	Cell: 970-560-4438	Office:	970-882-7428
	Alternate Contact:	Norman Butler	Position/Title:	President
	Email:			
	Phone Numbers:	Cell: 970-759-2225	Office:	

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.
- ☐ 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.

## Water Supply Reserve Account – Application Form

Revised December 2011

---

3. Provide a brief description of your organization

The Summit Reservoir & Irrigation Company is an incorporated, not-for-profit, mutual ditch and reservoir company established in 1906 under Colorado law, for the purpose of constructing and maintaining canals and reservoirs to supply lands downstream with water for domestic and irrigation purposes, and for the propagation of fish for domestic and commercial purposes. The company is authorized to build, construct, purchase, acquire, hold, use, operate, control, manage and maintain ditches, canals, pipelines and reservoirs, to accomplish the stated purposes.

The Articles of Incorporation, filed with the Secretary of State on February 5, 1907, provided for 400 shares of capital stock, spread among the four shareholders at that time. Over the years, the ownership of water shares and capital stock has become more dispersed, currently consisting of 149 shareholders. The company is operated under bylaws that were last restated in 1993. Those bylaws provide for a three-member board of directors that are elected for three-year staggered terms. The Articles of Incorporation and Bylaws are attached as Exhibit C.

Assets owned by the company include Summit Lake Dam and Reservoir, originally constructed between 1905 and 1907 and enlarged in 1938 to its current storage capacity of 4442 acre-feet; A.M. Puett Dam and Reservoir, originally constructed in 1887, enlarged in 1907, then enlarged again in 1960 to its current capacity of 2320 acre-feet; Big Pine (aka Joe Moore) Dam and Reservoir, constructed in 1907 to its current storage capacity of 304 acre-feet; the Turkey Creek Ditch, which diverts flows from the upper Lost Canyon Creek drainage to provide direct flows for irrigation and to fill the reservoirs; the Summit (aka, Lost Canyon) Ditch, which diverts flows from the lower Lost Canyon Creek drainage to provide direct flows for irrigation and to fill Summit Lake and A.M. Puett Reservoir; the Main Ditch downstream of Summit Lake; and the Camp and South Main Ditches downstream of A.M. Puett Reservoir.

All of the water rights owned by the company have their origins on Lost Canyon Creek, tributary to the Dolores River above McPhee Reservoir. Water diverted from the stream has historically been used to irrigate an area of about 4000 acres in Montezuma County, on and to the west of Summit Ridge, about 10 miles to the northeast of Cortez. Current land area under irrigation is closer to 3200 acres.

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

Not Applicable.

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

## Water Supply Reserve Account – Application Form

Revised December 2011

---

☐ 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.

As a private corporation, the Summit Reservoir & Irrigation Company is not subject to the provisions of TABOR, nor are TABOR issues relevant to this activity.

### 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

☐ Needs Assessment

☐ Education

☐ Other      Explain:

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

Summit Lake, one of the proposed features of this study, is an established and popular recreational fishery, and, along with the other reservoirs operated by Summit Reservoir and Irrigation Co., maintains a minimum conservation pool per a perpetual easement with the Colorado Division of Parks and Wildlife. At Summit Lake, this amounts to a minimum annual pool depth of 6 feet, or approximately 650 acre-feet of storage. Wakeless boating is allowed for fishing and recreational purposes, and is accessed via a concrete boat ramp at the north end of the reservoir, which is usable when the reservoir is within its upper 10 feet or so. A potential outcome of this project would be to help ensure that adequate water is available annually to meet or exceed the minimum pool obligation, with the potential benefit of enhancing the fishery, and to help maintain the reservoir at a higher level later into the season for recreational purposes.

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

☒

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:

## Water Supply Reserve Account – Application Form

Revised December 2011

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

Latitude: 37 deg 25' N

Longitude: 108 deg 23' W

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 purpose of the project is to evaluate the cost of repairing/upgrading the company's Summit Lake Dam and Summit Ditch to allow full utilization of the company's existing water rights from Lost Canyon Creek. Currently, Summit Lake, the company's largest storage vessel, is restricted by the Colorado State Engineer to 1.1 feet below full for most of the year, resulting in a loss of about 400 AF of storage capacity during the time that the restriction is in effect. The restriction, which is due primarily to seepage issues, is written to allow some flexibility, permitting filling within the restricted pool for up to 21 continuous days per year. Also, the Summit Ditch, which is used to fill both Summit Lake and A.M Puett Reservoir downstream, as well as to provide direct irrigation flows to water users, currently has a carrying capacity of only about 80 cfs, substantially less than the decreed diversion right of 135 cfs from Lost Canyon Creek, due to hydraulic restrictions which have occurred over the years. This limits the company's ability to divert flows at times when they are most readily available.

Although the company owns senior water rights on Lost Canyon Creek, due to the limitations of runoff timing and water availability in the typical year, the Summit system generally delivers less than 50% of the full volume of water in any given year which would be needed to provide the full irrigation crop requirement.

The company would like to utilize its existing decreed water rights to the maximum extent possible, but realizes that significant construction costs may be involved in upgrading its facilities to accomplish this. The proposed project would determine the anticipated costs to remedy two significant infrastructure problems, so that the company can rationally evaluate what course of action is most cost effective in utilizing their decreed water supply. No new water supplies are proposed or being studied as a part of this project.

An additional aspect of the proposed project is to evaluate the effect, in terms of annual acre-feet of water lost, of the current storage restriction at Summit Lake on the ability of the company to deliver water to irrigation users downstream. This will serve as baseline information on the current cost to "do nothing" to improve the system, so that the anticipated construction costs can be properly compared. Since the current reservoir restriction is not a "hard" restriction in terms of the ability to fill into the restricted pool, the effects of water availability, fill timing and water usage timing all come into play, with the net effect that the amount of water lost to the restriction may not amount to the full 400 AF in an average year.

URS Corporation of Denver would be retained to perform the study, according to a proposal they prepared for that purpose. The contents of that proposal are described by the Statement of Work in Exhibit A.

## Water Supply Reserve Account – Application Form

Revised December 2011

---

### 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.<sup>1</sup>

The proposed activity is totally consistent with CRS 27-75-102. The purpose of the proposed study is to provide the applicant with information which will allow them to make appropriate decisions regarding how best to protect and utilize their existing decreed water rights. No new water diversions or uses are included within the scope of this project. All water sources and uses which will be evaluated by the proposed study are currently decreed absolute supplies.

- b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRT's 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.

The proposed activity will be presented for the consideration of the Southwest Basin Roundtable at its bimonthly meeting held in Durango on November 13, 2013. The decision of the roundtable, if favorable, will be described by the final application made to the CWCB and by the letter of recommendation provided by the roundtable chair.

---

<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.

## Water Supply Reserve Account – Application Form

Revised December 2011

---

- 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.

The basin-wide consumptive water supply needs assessment for the southwest basin roundtable required by 37-75-104(2)(c) has not yet been completed, so is not available for reference, nor is the proposed project listed among the limited number of IPPs described within the SWSI 2010 report for the SW Basin Consumptive Needs Assessment. The SWSI 2010 needs assessment focuses more on larger, more well-known projects and processes identified at that time.

Some general observations relevant to the proposed activity can be made from the Consumptive Needs Assessment in SWSI 2010, however. The SW Basin as a whole is estimated to currently have only about 66% of the water supply available to agriculture to supply the crop demand (Table 4-9)(Irrigation Water Requirement for number of currently irrigated acres vs. Water Supply-Limited Consumptive Use), which places it near the bottom third of basins statewide for water availability. Irrigation District 32, to which the Summit Reservoir and Irrigation Company provides water, has a current demand shortage estimated at 26% - 39% (Fig. 4-8). SWSI 2010, in Section 5.1, recognizes that "... agriculture is a critical part of the history and economy of the area, and provides protection of open space and wildlife habitat. Reservoirs and the ability to store water during spring runoff has been a key component of managing the generous water supplies of this part of the state, and will continue to play a role in meeting the demands in the future."

Specifically addressing the Summit supply system, a feasibility study performed using basin roundtable funds in 2010 estimated that the current water supply and storage system meets only about 50% of the total crop demand for irrigation water, indicating a clear need for improvement.

---

<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.

## Water Supply Reserve Account – Application Form

Revised December 2011

---

- d) Matching Requirement: For requests from the Statewide Fund, the applicant 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)

The applicant is not requesting grant funds from the Statewide Fund, so the described matching requirement is not applicable. However, the applicant is proposing to provide \$6000 of company funds, which represents 15% of the total project cost and 23% of the amount requested from the basin fund, to complete the project.

Additional grant funding for the proposed project, in the amount of \$8000, was requested from the Southwestern Water Conservation District at their board meeting on October 9, 2013. The SWCD board voted to approve the grant funding request, subject to obtaining a basin grant from the SW Basin Roundtable for the remaining \$26,000, as requested herein.

Altogether, matching funds provided by the applicant and sources other than the SW Basin Roundtable amount to \$14,000, or 35% of the total project cost. The remaining 65% is requested from the basin account of the SW Basins Roundtable.

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. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).

## Water Supply Reserve Account – Application Form

Revised December 2011

---

- 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.
- 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.

### 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).
- 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.

### 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 and the degree to which the activity promotes maximum utilization of state waters.
- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.

Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.

**Please attach additional pages as necessary.**

Not applicable – applicant is not requesting funding for this activity from the Statewide Fund.

## Water Supply Reserve Account – Application Form

Revised December 2011

---

### 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 Summit Reservoir & Irrigation Company owns the following water rights, all absolute and all originating on Lost Canyon Creek, which is tributary to the Dolores River above McPhee Reservoir:

- 4442 AF annual first filling storage right for Summit Reservoir
- 1780 AF annual refill storage right for Summit Reservoir
- 2320 AF annual first filling storage right for A.M. Puett Reservoir
- 264 AF annual refill storage right for A.M. Puett Reservoir
- 304 AF annual first filling storage right for Big Pine (aka Joe Moore) Reservoir
- 259 AF annual refill storage right for Big Pine Reservoir
- 135 cfs diversion right for the Summit Ditch
- 90 cfs diversion right for the Turkey Creek Ditch

Both the Summit Ditch and the Turkey Creek Ditch diversion rights are decreed for filling of the company reservoirs and for providing direct flows to all company water distribution features both upstream and downstream of the reservoirs for as long as divertible flows are legally available. All of the features listed above are shown on Figure 2 of the project maps included in Appendix B.

The proposed project specifically addresses two of the features listed above: (1) Summit Reservoir; and (2) the Summit Ditch, which conveys flows from Lost Canyon to Summit Reservoir. Both of these features have well-established, senior water rights dating back to a 1905 date of appropriation for Summit Reservoir and 1913 for the Summit Ditch. In terms of their relationship to other major decreed water uses from the Dolores River system, Summit's water rights from Lost Canyon are junior to the water rights of the Montezuma Valley Irrigation Company, but senior to the Dolores Project. As the mainstem Dolores River serves as the primary source of water for both of those users, in a typical year, diversions from Lost Canyon Creek during the period of available snowmelt runoff are not generally affected by senior demands on the Dolores below its confluence with Lost Canyon Creek. Thus, when flows are present in Lost Canyon, they are usually available to Summit for diversion.

Flows in Lost Canyon Creek are measured by a USGS gauging station located 3 miles upstream of the mouth of Lost Canyon Creek, well downstream of all of Summit's points of diversion. Over a period of almost 30 years, from 1984 until 2012, average annual discharge from Lost Canyon Creek at the gauging station, after all diversions taken by Summit and other users upstream, amounts to almost 14,000 acre-feet, primarily from spring time snowmelt runoff.

In the event Summit's rights are called out during extended drought conditions, it is unlikely that Summit would have the ability to meet all demands, particularly if reservoir storage is limited. Typically, reservoir storage is depleted during the irrigation season, as the system does not have the carryover capacity to extend

## **Water Supply Reserve Account – Application Form**

Revised December 2011

---

through a drought cycle. Thus, any limitation on use of decreed storage capacity or the ability to divert flows when they are legally and physically available can present a problem of overall and potentially long-term water deficiency.

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

In 2007, Summit received a WSRA grant from the SW Basin Roundtable, to prepare Phase 1 of a Feasibility Study to evaluate a potential merger of the Summit Reservoir and Irrigation Company and the Montezuma Valley Irrigation Company (MVIC). The SW Basin Roundtable approved a grant of \$39,300 from the basin account to perform Phase 1 of the study, which was completed in 2010. The purpose of Phase 1 was to evaluate the benefits and drawbacks associated with the merger from the perspective of water rights and water planning. Phases 2 and 3 were intended to evaluate the condition of the SRIC infrastructure, including Summit Reservoir, for rehabilitation and improvement (Phase 2; \$127,300) and to perform a legal review of the companies with respect to merger issues (Phase 3; \$32,100), and would only proceed if the results of Phase 1 indicated that a merger would be desirable. While Phase 1 produced useful information on the Summit system, neither company concluded that pursuit of the merger should move forward, and so Phases 2 and 3 of the study were never initiated. It should be noted that the proposed Phase 2 of the original study contained some of the same elements as the currently proposed study, namely an evaluation of the Summit system infrastructure and the costs associated with its repair / rehabilitation / improvement. The currently proposed study narrows the scope and detail of the original Phase 2 somewhat, to an appraisal-level evaluation only of the two features described in paragraph (1) above, at a significantly reduced cost.

Since the proposed activity consists only of a study, no permitting issues are associated with it. The need to address future permitting issues will depend largely on the outcome of the evaluation and decisions made by Summit on how to proceed beyond that point. Any modification or rehabilitation of the dams will require the review and approval of the Colorado State Engineer's Office. The South Dam at Summit Lake is adjacent to BLM land, and may require permitting with that agency for access and for borrow material. Portions of the Summit Ditch and its diversion structure in Lost Canyon are located on the San Juan National Forest, which may require that permits be obtained from the Forest Service prior to any construction. Any impacts to wetlands, as defined by Section 404 of the Clean Water Act, will need to be permitted through the US Army Corps of Engineers.

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

Refer to Exhibit A, attached.

## **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.

**Water Supply Reserve Account – Application Form**  
Revised December 2011

---

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

**Signature of Applicant:**



**Print Applicant's Name:** Norman Butler, President, Summit Reservoir & Irrigation Co.

**Project Title:** Evaluation of Potential Infrastructure Upgrades

**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](mailto:gregory.johnson@state.co.us)

## **EXHIBIT A**

### **STATEMENT OF WORK, BUDGET, AND SCHEDULE**

## **Statement of Work**

**WATER ACTIVITY NAME** – Evaluation of Potential Infrastructure Upgrades

**GRANT RECIPIENT** – Summit Reservoir & Irrigation Company

**FUNDING SOURCE** – Water Supply Reserve Account Southwest Basin Grant (\$26,000) , with matching funds from applicant (\$6,000) and from the Southwestern Water Conservation District (\$8,000).

### **INTRODUCTION AND BACKGROUND**

The Summit Reservoir & Irrigation Company (SRIC), a Colorado not-for-profit corporation established in 1906, is requesting the consideration of the SW Basin Roundtable in providing funding assistance for a proposed study of key features of the company's existing infrastructure, to evaluate the expected costs and benefits of remedial work which would allow the company to more effectively utilize its existing water rights, versus the costs of continuing to operate the system under current diversion and storage limitations.

Currently, the company's largest storage reservoir, Summit Lake, is subject to a reservoir restriction imposed by the Colorado State Engineer's Office (SEO) due to safety issues with the dams, which limits the ability of the company to fully utilize their decreed storage within the reservoir. The restriction, written primarily for safety issues associated with dam and foundation seepage, limits the time period during which the reservoir can be within 1.1 feet of full storage to 21 continuous days of the filling season, resulting in a loss of up to 400 acre-feet of storage capacity at the time of the year when storage is most needed. Additionally, the main filling mechanism for Summit Lake, the Summit Ditch, which diverts flows from Lost Canyon Creek, is currently limited in its flow capacity to about 80 cfs due to hydraulic restrictions which have occurred over the years, a substantial reduction from its decreed diversion right of 135 cfs. Both issues affect the ability of SRIC to deliver irrigation water to downstream shareholders, who typically will receive only 50% of the full water demand for the arable acreage under production in any given year.

SRIC proposes to utilize the services of URS Corporation of Denver (URS), as described below, to perform the study.

### **OBJECTIVES**

The objectives of the proposed activity are as follows:

1. Evaluate the work required and the estimated cost to repair/rehabilitate the dams at Summit Lake to allow for removal of the current reservoir restriction and to address other identified safety deficiencies with the dams.

2. Evaluate the work required and the estimated cost to repair/rehabilitate/upgrade the existing Summit Ditch, and its diversion structure in Lost Canyon, to allow it to convey the full decreed diversion right of 135 cfs.
3. Evaluate the annual impact of the current reservoir restriction on Summit Lake, with respect to the ability of SRIC to utilize its decreed storage and diversion rights to deliver available water to its shareholders. This would include a study of the flow regime in Lost Canyon, the availability of divertible flows, and the timing of diversions and reservoir releases.

## **TASKS**

### **Task 1 – Existing Conditions Evaluation**

#### Description of Task

Investigate and determine existing conditions in order to: 1) develop recommendations to bring Summit Lake into compliance with SEO Dam Safety Rules and allow removal of the current reservoir restriction; 2) develop recommendations to repair/rehabilitate/upgrade the existing Summit Ditch to convey the full decreed diversion right of 135 cfs; and 3) evaluate the existing flow regime in Lost Canyon Creek and the impact that the current storage restriction on Summit Lake has on the availability of water to irrigators downstream.

#### Method/Procedure

The evaluation will focus on the following strategies:

- Review available previous studies and inspection reports to identify reported deficiencies with the Summit Lake Dams and the Summit Ditch. The review of available information will also include gathering information and data to be used for the evaluation of the flow regime of Lost Canyon Creek and for the evaluation of reservoir filling timing and water usage from Summit Lake.
- Conduct a site visit and perform a visual inspection of the Summit Lake Dams and the Summit Ditch to verify documented deficiencies and evaluate current conditions.
- Make recommendations for development of concepts to repair/rehabilitate the dams at Summit Lake to be in compliance with SEO Rules and facilitate removal of the current reservoir restriction.
- Make recommendations for development of concepts to repair/rehabilitate/upgrade the existing Summit Ditch, and its diversion structure in Lost Canyon, to allow it to convey the full decreed diversion right of 135 cfs.
- Estimate the annual impact of the current reservoir restriction on Summit Lake, with respect to the ability of SRIC to utilize its decreed storage and diversion rights and deliver available water to its shareholders. This will utilize a water balance approach to analyze the relationship between the flow regime in Lost Canyon Creek, the availability of divertible flows, and the timing of diversions and reservoir releases.

### Deliverable

A memorandum summarizing the existing conditions, including identified deficiencies determined from the review of available information and inspection of the dams and ditch. Recommendations for concepts to be developed in Task 2 will also be presented. The concepts will be limited to one concept for the Summit Lake Dam and one concept for the Summit Ditch. The memorandum will include site photos and site observations. The deliverable for Task 1 will be distributed in electronic format.

## **Task 2 – Concept Drawings**

### Description of Task

Develop concept drawings of the recommended repair/rehabilitation/upgrade concepts identified in Task 1.

### Method/Procedure

- Perform conceptual engineering analyses to enable the development of concepts.
- Develop concept figures in AutoCAD with sufficient detail to identify quantities and costs associated with the repair/rehabilitation/upgrade scenarios based on SEO criteria and industry standards.

### Deliverable

Conceptual-level designs and figures of recommended concepts identified in Task 1. The deliverable for Task 2 will be distributed in electronic format.

## **Task 3 – Cost Estimate**

### Description of Task

Develop conceptual cost estimates for the recommended concepts based on the conceptual design figures.

### Method/Procedure

The cost estimates will be based on quantity takeoffs estimated from the figures developed in Task 2. Pricing will be based on URS's database for material costs, previous dam construction projects in Colorado and New Mexico, prevailing wage rates, RS Means, and published unit rates from Colorado Department of Transportation. Contingencies will be applied, based on the conceptual level of design.

### Deliverable

Conceptual level cost estimates for the proposed concepts. The deliverable for Task 3 will be distributed in electronic format.

## **Task 4 – Preparation of Technical Memorandum**

### Description of Task

A technical memorandum will be prepared which documents the activities and processes of the previous tasks and discusses recommendations for moving forward.

### Method/Procedure

The technical memorandum will include design criteria, constraints, assumptions, quantities, and cost estimates.

### Deliverable

Final technical memorandum, as described above, which will include recommendations for the next phase of study. The deliverable for Task 4 will be distributed in a hard copy format. A CD containing electronic files of Tasks 1-4 will also be provided with the hard copy distribution.

## **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.

## BUDGET

Total Costs				
	Labor	Other Direct Costs	Matching Funds (If Applicable)	Total Project Costs
Task 1 - Existing Conditions Evaluation	\$12,222.00	\$743.00	\$3,500.00	\$12,965.00
Task 2 - Concept Drawings	\$14,634.00	\$440.00	\$3,500.00	\$15,074.00
Task 3 - Cost Estimate	\$3,962.00	\$119.00	\$3,500.00	\$4,081.00
Task 4 - Tech Memorandum	\$7,286.00	\$594.00	\$3,500.00	\$7,880.00
Total Costs:	\$38,104.00	\$1,896.00	\$14,000.00	\$40,000.00

Personnel Costs								
Project Personnel: Hourly Rate:	Project Manager \$160.00	Senior Consultant \$191.00	Project Engineer \$116.00	Staff Engineer \$84.00	CADD Tech. \$84.00	Admin Assist \$47.00		Total Costs
Task 1 - Existing Conditions Evaluation	2	16	32	60		2		\$12,222.00
Task 2 - Concept Drawings	1	4	16	32	108	2		\$14,634.00
Task 3 - Cost Estimate	1	4	8	20	4	2		\$3,962.00
Task 4 - Tech Memorandum	8	8	32	8		2		\$7,286.00
Total Hours:	12	32	88	120	112	8		
Cost:	\$1,920.00	\$6,112.00	\$10,208.00	\$10,080.00	\$9,408.00	\$376.00		\$38,104.00

Other Direct Costs						
Item:	Reproduction / Copies	Communication	Airfare	Mileage		Total
Units:	No.		Roundtrips	Miles		
Unit Cost:	\$125.00	(3% of labor)	\$310.00	\$0.55		
Task 1 - Existing Conditions Evaluation		\$367	1	120		\$743.00
Task 2 - Concept Drawings		\$440				\$440.00
Task 3 - Cost Estimate		\$119				\$119.00
Task 4 - Tech Memorandum	3	\$219				\$594.00
Total Units:	3		1	120		
Total Cost:	\$375.00	\$1,145.00	\$310.00	\$66.00		\$1,896.00

## **SCHEDULE**

<b>Task</b>	<b>Start Date</b>	<b>Finish Date</b>
1 - Exist. Cond. Eval.	NTP + 30 days	NTP + 60 days
2 - Concept Drawings	NTP + 60 days	NTP + 95 days
3 - Cost Estimate	NTP + 95 days	NTP + 125 days
4 - Technical Memo.	NTP + 125 days	NTP + 155 days

NTP = Notice to Proceed

## **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.