## Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet March 16-17, 2016 Agenda Item 14(d)

Applicant & Fiscal Agent: Huerfano County Water Conservancy District

Water Activity Name: Water Infrastructure Improvements – Huerfano River

Basin

Water Activity Purpose: Water Administration Improvements

County: Huerfano

Drainage Basin: Arkansas

Water Source: Cucharas River and Huerfano Rivers

**Amount Requested/Source of Funds:** \$20,000 Arkansas Basin Account

\$93,400 Statewide Account \$113,400 Total Grant Request

**Matching Funds:** Basin Account Match (\$20,000) = 17.6% of total grant

request (meets 5% min);

Applicant/ $3^{rd}$  Party Match (\$199,000) = 175% of total

grant request (meets 5% min)

Basin Account & Applicant Match (\$219,000) = 193% of

total grant request (meets 25% min)

(refer to Funding Summary/Matching Funds section)

### **Staff Recommendation:**

Staff recommends approval of up to \$20,000 from the Arkansas Basin Account, and \$93,400 from the Statewide Account to help fund the project titled: Water Infrastructure Improvements – Huerfano River Basin.

Water Activity Summary: WSRA funds, if approved, will be expended to fund the project titled: Water Infrastructure Improvements – Huerfano River Basin. This project will provide technical information via real-time data encompassing a comprehensive assessment of physical conditions needed to make best management decisions regarding river calls in the Huerfano-Cucharas Basin. Listed as project #ARK-2015-0004 in the Basin Implementation Plan Master Needs List, this project will meet several objectives identified in the Arkansas River Decision Support System Feasibility Study Final Report (November 2011) for development of a decision support system and will create administration enhancements that impact decisions about delivery of water downstream to honor a senior call, including a determination that such an effort would be futile and would deprive upstream rights or a chance to use or store water.

This project will enhance the ability of water users to be aware of opportunities to divert water inpriority, under rapidly changing river conditions, by providing better stream gage data in critical areas on the Cucharas and Huerfano Rivers. This project will include installation of monitoring wells in key locations that will serve a dual role of providing data related to alluvial aquifer conditions and their interrelationship to streamflow conditions as well as providing the opportunity to gain valuable data about aquifer characteristics.

This project has several components: (1) rehabilitation of existing river gages, (2) construction of new river gages, (3) construction of groundwater monitoring wells, (4) collection of historical diversion, storage, call, and river flow data consistent with the needs of CDSS, and (5) development and operation of a spreadsheet model to assist the Division Engineer and his Water Commissioners in making futile call determinations on the Cucharas and Huerfano rivers.

This project is a cooperative effort between the Huerfano County Water Conservancy District (HCWCD; main sponsor), the Colorado Division of Water Resources (Water Division 2), and the Interstate and Federal Section of the CWCB (DSS), with additional support from the funding sources listed above.

**Discussion:** This project was identified on the Master Needs List of the Arkansas Basin Implementation Plan, and meets several of the goals and measurable objectives identified in that BIP. As stated in the basin's 2015 BIP, "In order to administer surface water in Colorado and the Arkansas Basin, data on streamflow is required in order to make administrative decisions regarding specific surface water diversions that are allowed to divert water according to their priority." § 3.2.3, p. 115. Consequently this application is in direct response to the Arkansas Basin's needs assessment described in C.R.S. §37-75-104(2) and appearing as ARK-2015-0004 in the Master Needs List of the Arkansas BIP.

The project is also consistent with the key action items, goals, and measurable objectives identified in Colorado's Water Plan, specifically critical action items identified in Chapter 10 which direct the CWCB to work with BRTs and project proponents to fund projects which have been prioritized by basin roundtables.

**Issues/Additional Needs:** No issues or additional needs have been identified.

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

The application meets all four Threshold Criteria.

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

This activity has under gone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant's detailed response.

**Funding Summary/Matching Funds:** 

| <b>Funding Source</b>       | <u>Cash</u> | <b>In-kind</b> | <b>Total</b> |
|-----------------------------|-------------|----------------|--------------|
| CWCB - DSS                  | \$100,000   | \$0            | \$100,000    |
| DWR                         | \$26,000    | \$44,000       | \$70,000     |
| HCWCD                       | \$5,000     | \$0            | \$5,000      |
| HCBOCC                      | \$4,000     | \$0            | \$4,000      |
| CSWD                        | \$4,000     | \$0            | \$4,000      |
| HCFMLD                      | \$4,000     | \$0            | \$4,000      |
| La Veta                     | \$4,000     | \$0            | \$4,000      |
| Walsenburg                  | \$4,000     | \$0            | \$4,000      |
| Water Users                 | \$4,000     | \$0            | \$4,000      |
| Subtotal Matching Funds     | \$155,000   | \$0            | \$199,000    |
| WSRA Arkansas Basin Account | \$20,000    | n/a            | \$20,000     |
| WSRA Statewide Account      | \$93,400    | n/a            | \$93,400     |
| <b>Total Project Costs</b>  | \$268,400   | \$44,000       | \$312,400    |

### **CWCB Project Manager:** Andy Moore

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

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

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

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

### ARKANSAS BASIN ROUNDTABLE

October 26, 2015

Craig Godbout Colorado Water Conservation Board 1313 Sherman St., Room 721 Denver, CO 80203

Re:

WSRA grant application – HCWCD Water Infrastructure Improvements

Dear Craig:

At October's regular meeting the Roundtable evaluated and approved by unanimous agreement the Water Supply Reserve Account grant application from the Huerfano County Water Conservancy District and the Division of Water Resources for "Water Infrastructure Improvements – Huerfano River Basin."

This project makes improvements to water management infrastructure in the Huerfano Basin that are essential to the reduction of the "gap" for all types of uses. In order to effectively administer over 1,000 water rights this project will: (1) rehabilitate existing river gages, (2) construct new river gages, (3) construct groundwater monitoring wells, (4) collect historical diversion, storage, call, and river flow data consistent with the needs of CDSS, and (5) develop and operate a spreadsheet model to assist the Division Engineer and his Water Commissioners in making timely futile call determinations on the Cucharas and Huerfano rivers.

### This project is:

- Essential to the *Colorado Water Plan*, Chapter 10, which requires an "efficient and effective water infrastructure" including adequate tools for water resources management and water right administration,
- Identified as #ARK-2015-0004 on our BIP's Master Needs List, and
- Meets several objectives identified in the Arkansas River Decision Support System Feasibility Study Final Report (November 2011).

Finally, the Roundtable approved the request of \$113,400 from the Water Supply Reserve Account, of which \$93,000 would come from the State-wide account and \$20,000 from the Basin-wide account. Other sources will provide \$199,000 of the total project cost of \$312,400.

Should you have any questions or concerns, please feel free to contact me either by telephone, 719-742-6164, or by email, <a href="mailto:sandy@white-jankowski.com">sandy@white-jankowski.com</a>.

With warmest regards,

Michael D. (Sandy) White

Chair

copy via email:

<u>craig.godbout@state.co.us</u> <u>brent.newman@state.co.us</u> <u>sandy@white-jankowski.com</u>



### COLORADO WATER CONSERVATION BOARD

## WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



\$113,400

October 14, 2015

Water Infrastructure Improvements - Huerfano River Basin

Name of Water Activity/Project

Name of Applicant

Arkansas

Amount from Statewide Account:

\$93,400

\$20,000

\$20,000

**Total WSRA Funds Requested:** 

**Approving Basin Roundtable(s)** 

(If multiple basins specify amounts in parentheses.)

FEIN: 84-0935026

### **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 7  |
| Part IV – Required Supporting Material         |         |
| Water Rights, Availability, and Sustainability | page 10 |
| Related Studies                                | page 10 |
| Signature Page                                 | page 12 |

### **Required Exhibits**

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

### **Appendices – Reference Material**

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

### Water Supply Reserve Account – Application Form

Revised October 2013

### **Instructions**

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

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

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

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <a href="http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf">http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf</a>. In addition, the applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests .

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

Craig Godbout - WSRA Application Colorado Water Conservation Board 1313 Sherman St., Room 721 Denver, CO 80203 Craig.godbout@state.co.us

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

| Part I Descri | ption of the A | <b>pplicant</b> (Pro | oject Sponsor o | or Owner); |
|---------------|----------------|----------------------|-----------------|------------|
|---------------|----------------|----------------------|-----------------|------------|

| 1.     | Applicant Name(s):   | Huerfano County Water Conservancy District |                                 |                 |                        |  |  |
|--------|--|--|---------------------------------|-----------------|------------------------|--|--|
|        | Mailing address:   | _  | PO Box 442<br>La Veta, CO 81055 |                 |                        |  |  |
|        | FEIN #:  | 84-09                                      | 35026                           |                 |                        |  |  |
|        | Primary Contact:   | Micha                                      | ael D (Sandy) White             | Position/Title: | President              |  |  |
|        | Email:   | sandy                                      | @white-jankowski.com            |                 |                        |  |  |
|        | Phone Numbers:   | Cell:                                      | 720-635-9403 (not on)           | Office:         | 719-742-6164           |  |  |
|        | Alternate Contact:   | Carol Dunn                                 |                                 | Position/Title: | District Administrator |  |  |
|        | Email:   | <u>cdunr</u>                               | n@cad-1.com or hcwcdis          | strict@gmail.co | <u>m</u>               |  |  |
|        | Phone Numbers:   | Cell: <b>719-989-7259</b>                  |                                 | Office:         | 719-742-3597           |  |  |
| 2. Eli | <ul> <li>2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?</li> <li>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.</li> <li>X Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises. [Title 37]</li> <li>Private Incorporated – mutual ditch companies, homeowners associations, corporations.</li> </ul> |  |                                 |                 |                        |  |  |
|        | 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

The Huerfano County Water Conservancy District (HCWCD or District), formed by election and court decree in 1971 under the Water Conservancy Act, C.R.S. § 37-45-101 *et seq.*, responds to local and regional needs by protecting, stabilizing and enhancing the county's water resources, including the Huerfano and Cucharas Rivers, tributary streams and groundwater. In this matter the District is collaborating with the Office of the Division Engineer, Water Division 2, DWR, and the Interstate and Federal Section of the CWCB.

- 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.

| Х | 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.

There are no relevant TABOR issues affecting the applicant.

## Water Supply Reserve Account – Application Form Revised October 2013

| Pa | rt II Desci                               | ription of the W                                   | ater Activi                  | ty/Project  |  |  |  |  |
|----|---|--|------------------------------|---|--|--|--|--|
| 1. | What is the J                             | primary purpose                                    | of this gran                 | t application? (Please check only one)  |  |  |  |  |
|    |   | Nonconsumptive (Environmental or Recreational)     |                              |   |  |  |  |  |
|    |   | Agricultural                                       |                              |   |  |  |  |  |
|    |   | Municipal/Ind                                      | lustrial                     |   |  |  |  |  |
|    |   | Needs Assessi                                      | ment                         |   |  |  |  |  |
|    |   | Education  |                              |   |  |  |  |  |
|    | Х   | Other  | Explain:                     | Effective Water Right Administration  |  |  |  |  |
| 2. | If you feel th                            | nis project addres                                 | sses multiple                | e purposes please explain.  |  |  |  |  |
| 2  | a variety of<br>Because the<br>multiple p | of beneficial use<br>nis project facil<br>urposes. | es – agricul<br>itates the n | red on the Huerfano and Cucharas rivers divert and store water for ltural, municipal/industrial, environmental and recreational.  naximum lawful utilization of all those water right, it addresses |  |  |  |  |
| 3. | Is this projec                            |  |                              | mentation of a water activity/project? (Please check only one)  |  |  |  |  |
|    |   | Study  | X                            | Implementation  |  |  |  |  |
| 4. | To catalog n                              | neasurable result                                  | s achieved v                 | with WSRA funds can you provide any of the following numbers?   |  |  |  |  |
|    |   | New Storag   | ge Created (a                | acre-feet)  |  |  |  |  |
|    |   | New Annua  | al Water Suj                 | pplies Developed, Consumptive or Nonconsumptive (acre-feet)   |  |  |  |  |
| Ī  |   | Existing Sto                                       | orage Preser                 | rved or Enhanced (acre-feet)  |  |  |  |  |
|    |   | Length of S  | Stream Resto                 | ored or Protected (linear feet)   |  |  |  |  |
|    |   | Length of F  | Pipe/Canal B                 | Built or Improved (linear feet)   |  |  |  |  |
|    |   | Efficiency S                                       | Savings (acr                 | re-feet/year OR dollars/year – <b>circle one</b> )  |  |  |  |  |
|    |   | Area of Res  | stored or Pre                | eserved Habitat (acres)   |  |  |  |  |
|    | L007                                      | Other Ex   | piuii.                       | ter rights benefiting from efficient and effective  |  |  |  |  |

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

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.

This activity, #ARK-2015-0004 on the Master Needs List of the Arkansas Basin Implementation Plan, also meets several objectives identified in the Arkansas River Decision Support System Feasibility Study Final Report (November 2011). This project has several components: (1) rehabilitation of existing river gages, (2) construction of new river gages, (3) construction of groundwater monitoring wells, (4) collection of historical diversion, storage, call, and river flow data consistent with the needs of CDSS, and (5) development and operation of a spreadsheet model to assist the Division Engineer and his Water Commissioners in making futile call determinations on the Cucharas and Huerfano rivers. WSRA funding will be used for all components except for the historical data review (done with DSS funds), along with cash contributions of \$155,000 from districts, municipalities, water users within the county, and DWR and CWCB (CDSS), together with in-kind services of \$44,000 from DWR.

As acknowledged in the Colorado Water Plan, Chapter 10, the Arkansas Basin needs an "efficient and effective water infrastructure" which includes adequate tools for water resources management and water right administration. They in turn support "vibrant and sustainable cities" and "viable and productive agriculture." With recent climate fluctuations exacerbating the vagaries of the normal hydrologic cycle, water allocation and usage has become a precarious business. Reducing that uncertainty is important for continued health of the basin's water-dependent economy. In the absence of an up-and-running decision support system similar to that in the Colorado River Basin, smaller pragmatic solutions must be found, sooner rather than later. Greater certainty will result, for example, by establishing local parameters to assist water administration officials and individual water users in declaring "futile calls" in accordance with C.R.S. § 37-92-502(2)(a). Among other things this project will develop a hydrologic model with ground water and surface water interactions in a form suited to administrative decisions regarding whether certain calls within the Huerfano/Cucharas drainage should be determined to be futile based on variable parameters as identified in statute and with input from water users.

Under the futile call provision, the Division Engineer will curtail upstream junior diversions only if they are causing "material injury" to downstream seniors. If not, the downstream senior's call is viewed as futile. In making his determination, the Division Engineer considers whether the water bypassed by the upstream junior will actually reach the downstream senior in appropriate quantities based on factors such as volumes of water in and tributary to the stream, the distance and type of stream bed between the diversion points, and the velocities and probable duration of stream flow. This is an ideal situation for use of a computer model. Unfortunately, none exists.

### Part III. - Threshold and Evaluation Criteria

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

No component of this activity will result in the abrogation of water rights or the disruption of contractual arrangements; the project is entirely consistent with C.R.S. § 37-75-102. Beneficial to all water right owners, effective water right administration on the Cucharas and Huerfano rivers will be significantly facilitated by improved information on river flows from new or improved river gages, by data on groundwater conditions from monitoring wells, and by a user-friendly spreadsheet model developed by and for the use of the Division Engineer's office and its Water Commissioners.

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

Evaluation and approval letter from Basin Roundtable attached.

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

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.

A key element to surface water administration on the Arkansas, including its tributaries, is river flow data. As stated in the basin's 2015 BIP, "In order to administer surface water in Colorado and the Arkansas Basin, data on streamflow is required in order to make administrative decisions regarding specific surface water diversions that are allowed to divert water according to their priority." § 3.2.3, p. 115. Consequently this application is in direct response to the Arkansas Basin's needs assessment described in C.R.S. §37-75-104(2) and appearing as ARK-2015-0004 in the Master Needs List of the Arkansas BIP.

The necessity for infrastructure improvement is urgent. For example, regarding remediation of existing gages the Lead Hydrographer, Division 2, states:

"<u>Huerfano river at Badito</u>: The control is a constructed channel section. It is generally inaccurate at all stages and has consistently been problematic in reliably providing good data. This is the worst gage in Division 2. The recent addition of a radar level sensor has improved the quality of data collected, but the ability to quantify flow effectively is a good, stable control structure away.

"Huerfano River below Huerfano Valley Dam Near Undercliffe: The gage in the river itself does not function anymore. It has isolated and is damaged, plus the river channel itself is the control and constantly shifts during the infrequent, but highly turbulent flows. Building a control structure in the adjacent canal would provide the support necessary to administer water rights off of the Huerfano River at this location. A level sensor of some sort mounted at the dam would provide go/no-go data for being able to use the canal for diverting flow effectively and satisfying all of the downstream water rights."

Section 104(2)(c) requires "an analysis of available unappropriated waters within the basin." Such an analysis of unappropriated waters must include the identification of futile call conditions as contemplated by this project. For example, the Division 2 Water Court recently held that, under futile call conditions, water is unappropriated and new water rights may be initiated. Decree, *Appliction of Mountain Property Holdings*, LLC, 2012CW111, ¶ 35, p. 16, September 10, 2014.

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

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

This water activity will cost \$312,400, with total WSRA funds of \$113,400 requested in the amounts of \$93,400 (82 %) from the Statewide Fund, \$20,000 (18 %) from Basin funds. Of the total project cost, Applicant and 3<sup>rd</sup> party funding constitutes \$155,000 (50%) cash and \$44,000 (14%) in-kind, leaving WSRA funding to be 36% of the total.

### Water Supply Reserve Account – Application Form

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

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. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

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

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

The multiple needs represented amongst the affected water users within the Huerfano/Cucharas basin include agricultural, municipal and industrial, as well as environmental and recreational. The users themselves include federal and state agencies, as well as local governments, water providers, and individual farmers and ranchers.

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

This project includes the following participants: Huerfano County Water Conservancy District, Division of Water Resources, the Colorado Water Conservation Board (Decision Support System), Huerfano Board of County Commissioners, Town of La Veta, City of Walsenburg, Cucharas Sanitation and Water District, and the Huerfano County Mineral Lease District as well as private water users.

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 activity is listed on the Master Needs List of the Arkansas Basin Implementation Plan as ARK-2015-0004, "Huerfano River Futile Call Administration Model and Gages." It also meets several objectives identified in the Arkansas River Decision Support System Feasibility Study Final

Report (November 2011). More importantly, it facilitates accurate water right administration, an essential ingredient to appropriate administration of water rights in order to meet the gaps between available water supply and future needs as identified in the Basin Implementation Plan.

### <u>Tier 2: Facilitating Water Activity Implementation</u>

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).

Without WSRA funding, this activity will not be accomplished. State and local sources have contributed 64% of the necessary funds and in-kind services. There is not enough available money in Huerfano county (one of the poorest in the State) to fund the activity without compromising already stressed essential human services. The 36% requested from WSRA will allow the activity to move forward.

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.

As shown in Exhibit A, the applicant's and participants' contribution to the project are substantial, some 60%, consisting of \$155,000 cash and \$44,000 in-kind (from DWR). The budgets of the participating local governments are very lean. For example, the trustees of the Town of La Veta serve without compensation, and the various District directors all serve as volunteers. Matching funds constitute a significant and 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.

Agricultural uses of water are wholly dependent on effective water right administration, as are those for other uses including environmental and recreational - particularly in arid Huerfano County. The majority of the significant water rights in the county are for agricultural use, yet this project will benefit the water rights associated with Lathrop State Park, a significant use of water for recreational and environmental purposes.

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.

The Arkansas River Compact (1948) protects pre-compact water rights against river depletions from future development. The vast majority of water rights in the Huerfano-Cucharas basins, tributary to the Arkansas, were appropriated and adjudicated in the pre-compact era. The improvement of water administration will stabilize the water available to local users within Colorado under the terms of the compact and facilitates Colorado's ability to fully exercise its compact entitlement.

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- 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.

Several years ago the CWCB identified Huerfano County as a worthy object of financial assistance. CWCB funding, through the HCWCD, has been used to assist development of a regional augmentation plan on the Huerfano River (\$2.2 million loan and \$250,000 grant for a \$3.5 million project), the completion of a pre-fire assessment on the upper Cucharas River (\$45,000 matching grant for a \$100,000 project), the preliminary engineering design of sediment basins identified by that pre-fire assessment (\$90,000 of \$100,000 through the Arkansas Basin Watershed Collaborative), and the Cucharas Basin Collaborative Storage Study (\$220,000 of \$250,000 total). This activity complements the foregoing work already funded in Huerfano County.

Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**. **Please attach additional pages as necessary.** 

### 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 addresses water administration infrastructure in a large portion of Water Division 2 (Arkansas River), including Water Districts 16 (Cucharas), 79 (Huerfano), Water District 14 (the Huerfano below its confluences with the Cucharas and Arkansas mainstem), and Water District 17 (Arkansas mainstem above John Martin). The project will benefit approximately 1007 water rights. They consist of 343 ditch and reservoir rights in WD 16; 409 ditch and reservoir rights in WD 79, 204 ditch and reservoir rights WD14 on Huerfano and Arkansas River mainstem; and 51 ditch and reservoir rights in WD 17 on the mainstem, being the adjudicated water rights in those districts.

The Cucharas River and the Huerfano River both arise in Huerfano County, the Cucharas from west of the Spanish Peaks and the Huerfano in the Sangre de Christos – all within the San Isabel National Forest. The Huerfano runs roughly 115 miles from its headwaters to the Arkansas River. Along the way the Huerfano is joined by the Cucharas after it has run approximately 75 miles from its headwaters. The estimated average annual yield of the Huerfano and its tributaries is in excess of 59,000 a.f.

Within Huerfano County, the Huerfano or its tributaries passes through and provides water supplies for agricultural areas as well as for the village of Cuchara, the Town of La Veta, and the City of Walsenburg, in addition to providing water for recreational and environmental purposes at Lathrop State Park.

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

There are no permitting issues.

### Related studies include:

- Arkansas River Decision Support System Feasibility Study Final Report (November 2011)
- Zorich-Erker Engineering, Inc., Water Resources of Huerfano County (prepared for Huerfano County Water Conservancy District), Denver, Colorado, 1978.
- 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

### Water Supply Reserve Account – Application Form

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disbursed on a reimbursement basis after review invoices and appropriate backup material.

**Please provide a detailed statement of work using the template in Exhibit A**. Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

### REPORTING AND FINAL DELIVERABLE

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

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

### **PAYMENT**

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

### Water Supply Reserve Account - Application Form

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

Signature of Applicant:

President

**Print Applicant's Name:** 

Huerfano County Water Conservancy District

**Project Title:** 

Water Infrastructure Improvements - Huerfano River Basin

Date:

October 14, 2015

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

Craig Godbout – WSRA Application Colorado Water Conservation Board 1313 Sherman St., Room 721 Denver, CO 80203 303-866-3441, ext. 3210 (office) 303-547-8061 (cell) craig.godbout@state.co.us

## Exhibit A Statement of Work Date: 8/11/15

# WATER ACTIVITY NAME – Water Infrastructure Improvements – Huerfano River Basin GRANT RECIPIENT – Huerfano County Water Conservancy District FUNDING SOURCES –

|                         |                  | <u>Amount</u> | % of<br>WSRA |
|-------------------------|------------------|---------------|--------------|
| Basin Account           |                  | \$20,000      | 17.6%        |
| State-wide Account      |                  | \$93,400      |              |
| WSRA grant funds reques | sted             | \$113,400     |              |
| Applicant & 3rd parties |                  |               |              |
| CWCB-DSS                | \$100,000        |               |              |
| DWR In-Kind             | \$44,000         |               |              |
| DWR                     | \$26,000         |               |              |
| HCWCD                   | \$5,000          |               |              |
| HCBOCC                  | \$4,000          |               |              |
| CSWD                    | \$4,000          |               |              |
| HCFMLD                  | \$4,000          |               |              |
| La Veta                 | \$4,000          |               |              |
| Walsenburg              | \$4,000          |               |              |
| Water Users             | \$4,000          |               |              |
| Total other             |                  | \$199,000     | 175.5%       |
|                         |                  |               |              |
|                         | Total            |               | 004.50/      |
|                         | Match            |               | 234.5%       |
|                         | Total<br>Project | \$312,400     |              |

### INTRODUCTION AND BACKGROUND

Provide a brief description of the project. (Please limit to **no more than 200 words**; this will be used to inform reviewers and the public about your proposal)

This project will provide technical information via real-time data encompassing a comprehensive assessment of physical conditions needed to make best management decisions regarding river calls in the Huerfano-Cucharas Basin. Listed as project #ARK-2015-0004 in the Basin Implementation Plan Master Needs List, this project will meet several objectives identified in the Arkansas River Decision Support System Feasibility Study Final Report (November 2011) for development of a decision support system and will create administration enhancements that impact decisions about delivery of water downstream to honor a senior call, including a determination that such an effort would be futile and would deprive upstream rights or a chance to use or store water.

This project will enhance the ability of water users to be aware of opportunities to divert water inpriority, under rapidly changing river conditions, by providing better stream gage data in critical areas on the Cucharas and Huerfano Rivers. This project will include installation of monitoring wells in key locations that will serve a dual role of providing data related to alluvial aquifer conditions and their interrelationship to streamflow conditions as well as providing the opportunity to gain valuable data about aquifer characteristics.

This project is a cooperative effort between the Huerfano County Water Conservancy District (HCWCD; main sponsor), the Colorado Division of Water Resources (Water Division 2), and the Interstate and Federal Section of the CWCB (DSS), with additional support from the funding sources listed above.

### **OBJECTIVES**

List the objectives of the project

The project's objectives are to develop reliable infrastructure and technical data usable within a digital administration tool that provides opportunities to arrive at difficult water administration decisions effectively and impartially and to convey the reasons for decisions to water users impacted in a clear, fact-based manner.

### **TASKS**

Provide a detailed description of each task using the following format

### TASK 1 – Stream Gaging Assessment/Design

### Description of Task

Using a qualified consultant (with cooperation and assistance from DWR's Hydrography Program), inventory, analyze, and evaluate existing and new stream gages as shown in Exhibit B-1. Identify preliminary design criteria and work with land owners/public entities to coordinate any right-of-way access agreements. Develop designs, construction drawings and bid documents along with cost estimates for each gage site.

### Method/Procedure

<u>Inventory/Assessment</u>. Conduct the inventory by site visits to each location, interview of Water Commissioners and water users and review of historical streamflow information. Review access agreements for each site with land owners and recommend improvements/enhancements as needed.

Design. Analyze the adequacy of existing gages and proposed gages by:

- Evaluating whether the gage is capable of providing good data over the range of flows common to administration decisions.
- Evaluate the ability of each gage to sustain high flow conditions without significant damage or loss of data. Assess whether reasonably accurate flow estimates can be determined at higher flows and also how high flow hydrographic measurements can be accomplished.
- Design improvements or replacement for each existing gage and design each new gage to meet expected design flows.

• Prepare drawings, specifications, bid documents and cost estimates.

### Deliverables

Deliverables will consist of a written assessment report (in hardcopy and electronic form) of all gage sites, followed by design drawings, specifications and bid documents suitable to allow HCWCD to conduct project procurement.

Onsite and public meetings will be conducted as needed to ensure adequate input has been provided from impacted parties. These should include at a minimum a meeting at each gage site and two meetings with HCWCD to convey results and solicit feedback.

### TASK 2 – Ground Water Monitoring Well Design/Construction

### Description of Task

Using a qualified consultant, evaluate potential locations where ground water data is needed that will provide information related to streamflow transit losses and that will be consistent with the objectives identified in Sections 3.7, 3.9 and 3.10 of the Arkansas River Decision Support System Feasibility Study Final Report. Design and specify the number of wells involved to create a small network along the Huerfano-Cucharas River alluvial areas. Wells will be constructed as monitoring wells and will be equipped for continuous monitoring of water level data. It is anticipated the network of wells will be limited to four or five for this project, as illustrated in Exhibit B-2.

### Method/Procedure

Evaluate alluvial geology and review streamflow data and observations of dry-up locations to assess best locations for wells that will provide information about the amount of aquifer storage required to be filled to produce a live stream if water is called away from an upstream junior appropriation.

- Review mapped geologic areas, existing well logs and any relevant soil data along the area of interest for this project.
- Review prior study data and reports.
- Develop designs for monitoring wells and prepare specifications and construction bid documents with cost estimates.

## TASK 3 – Development of an Administration Tool/Model to Optimize Decisions Related to River Calls for the Huerfano-Cucharas system

### Description of Task

Using a qualified consultant, review historical river call, diversion and streamflow data in the Huerfano-Cucharas river basins relevant to primary call decisions. Identify structures in a manner consistent with Sections 3.2 and 5.1 of the Arkansas River Decision Support System Feasibility Study Final Report and assess missing data that needs to be filled in.

### Method/Procedure

• Review the results of a companion project HCWCD is conducting (**Cucharas Basin Collaborative Storage Study** ARK-2015-0007) with respect to water allocation

modeling and water budget analysis. This separate project will be done using CDSS data/tools where appropriate and working with the CWCB/DWR staff to make sure the effort complements CDSS.

- Review historical scenarios with Water Commissioners for Water Districts 10/16/79 where decisions were made to either honor a downstream senior call to make a futile call determination or where a futile call decision was made to allow junior diversions upstream. Assess the diversion and streamflow data as well as the climatological data that was contemporaneous to these scenarios and during antecedent conditions just prior to the call scenario.
- To the greatest extent possible, rely on or coordinate with surface water modeling produced/needed for the Cucharas Basin Collaborative Storage Study and, where necessary, develop additional surface water modeling using CDSS tools or comparable engineering techniques.
- Analyze statistical parameters related to how well downstream flows can be predicted from upstream or intermediate sources of data.
- Develop a preliminary digital tool for use in estimating the likely outcome of administrative call decisions on downstream water rights.

### **Deliverables**

A written report, in hardcopy and in electronic form describing the evaluation and analysis conducted with recommendations for implementing data from new structures or improved structures to enhance the surface water model. A preliminary version of a digital model to simulate call decision impact is to be provided in electronic form with documentation regarding operation and assumptions related to the model.

### TASK 4 - Contract Administration

### Description of Task

Using a qualified person, insure the timely accomplishment of contract tasks and the submission of required reports under the grant contract.

### Method/Procedure

Contract administration will be primarily handled by the regular part-time Administrator of the Huerfano County Water Conservancy District, who has successfully administered other CWCB grants and loans for the District. However, the time requirements of administration of this grant far exceed the District Administrator's time for which she is now compensated. The amount budgeted for this task will be used to compensate the Administrator for additional time spent on this grant.

### Deliverable

Timely submission of all reports and deliverables required by the grant contract.

### 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**

Provide a detailed budget by task including number of hours and rates for labor and unit costs for other direct costs (i.e. mileage, \$/unit of material for construction, etc.). A detailed and perfectly balanced budget that shows all costs is required for the State's contracting and purchase order processes. Sample budget tables are provided below. Please note that these budget tables are examples and will need to be adapted to fit each individual application. Tasks should correspond to the tasks described above.

### **BUDGET BY TASK**

| Task<br># | Task Description                              | Administrator | Engineering<br>Consultant<br>Senior P.E. | Engineering<br>Consultant<br>Staff<br>P.E./EIT | Construction<br>Contractor | DWR\<br>Local | Total     |
|-----------|---|---------------|--|--|----------------------------|---------------|-----------|
| 1         | Stream Gage Evaluation                        |               |  |  |                            |               |           |
|           | Inventory/Assess /Design Gage Sites           |               | \$8,000                                  | \$11,000                                       |                            | \$19,000      | \$38,000  |
|           | Construct New Gages and Gage Improvements     |               |  |  | \$143,400                  | \$6,000       | \$149,400 |
|           | SUB-TOTAL TASK 1                              |               | \$8,000                                  | \$11,000                                       | \$143,400                  | \$25,000      | \$187,400 |
| 2         | Ground Water Monitoring                       |               |  |  |                            |               |           |
|           | Determine well locations/Design Wells         |               | \$2,000                                  | \$3,000  |                            |               | \$5,000   |
|           | Construct monitoring wells                    |               |  |  | \$40,000                   |               | \$40,000  |
|           | SUB-TOTAL TASK 2                              |               | \$2,000                                  | \$3,000  | \$40,000                   |               | \$45,000  |
| 3         | Develop Administrative Model                  |               |  |  |                            |               |           |
|           | Review Collaborative Storage Project Work     |               | \$3,000                                  | \$2,000  |                            | \$5,000       |           |
|           | Evaluate Historical Futile Call Scenarios     |               | \$3,000                                  | \$2,000  |                            | \$5,000       |           |
|           | Adapt/Develop Surface Water Model             |               | \$8,000                                  | \$4,000  |                            | \$5,000       |           |
|           | Perform Statistical Analysis of Relevant Data |               | \$3,000                                  | \$2,000  |                            | \$2,500       |           |
|           | Develop Preliminary Call Model                |               | \$13,875                                 | \$6,125  |                            | \$7,500       |           |
|           | SUB-TOTAL TASK 3                              |               | \$31,000                                 | \$14,125                                       |                            | \$25,000      | \$70,000  |
| 4         | Project Management                            |               |  |  |                            |               |           |
|           | Manage Contract                               | \$2000        |  |  |                            |               | \$2000    |
|           | Periodic Reports                              | \$2000        |  |  |                            |               | \$2000    |
|           | Grant Accounting                              | \$1000        |  |  |                            |               | \$1000    |
|           | SUB-TOTAL TASK 4                              | \$5000        |  |  |                            |               | \$5000    |
|           | GRAND TOTAL                                   | \$5000        | \$43,875                                 | \$30,125                                       | \$183,400                  | \$50,000      | \$312,400 |

### **HOURS BY TASK**

| Task | Task Description                              | Administrator | Engineering   | Engineering |              | DWR∖  | Total     |
|------|---|---------------|---------------|-------------|--------------|-------|-----------|
| #    | Task Description                              | Aummstrator   | Consultant    | Consultant  | Construction | Local | Total     |
| "    |   |               | Senior P.E.   | Staff       | Contractor   | Local |           |
|      |   |               | 5011101 1 121 | P.E./EIT    | 00111110101  |       |           |
| 1    | Stream Gage Evaluation                        |               |               |             |              |       |           |
|      | Inventory/Assess /Design Gage Sites           |               | 25            | 122         |              | 190   | \$38,000  |
|      | Construct New Gages and Gage Improvements     |               |               |             | \$143,400    | 60    | \$149,400 |
|      | SUB-TOTAL TASK 1                              |               | 25            | 122         | \$143,400    | 250   | \$187,400 |
| 2    | Ground Water Monitoring                       |               |               |             |              |       |           |
|      | Determine well locations/Design Wells         |               | 6             | 33          |              |       | \$5,000   |
|      | Construct monitoring wells                    |               |               |             | \$40,000     |       | \$40,000  |
|      | SUB-TOTAL TASK 2                              |               | 6             | 33          | \$40,000     |       | \$45,000  |
| 3    | Develop Administrative Model                  |               |               |             |              |       |           |
|      | Review Collaborative Storage Project Work     |               | 9             | 22          |              | 50    |           |
|      | Evaluate Historical Futile Call Scenarios     |               | 9             | 22          |              | 50    |           |
|      | Adapt/Develop Surface Water Model             |               | 25            | 45          |              | 50    |           |
|      | Perform Statistical Analysis of Relevant Data |               | 9             | 22          |              | 25    |           |
|      | Develop Preliminary Call Model                |               | 42            | 69          |              | 75    |           |
|      | SUB-TOTAL TASK 3                              |               | 94            | 180         |              | 250   | \$70,000  |
| 4    | Project Management                            |               |               |             |              |       |           |
|      | Manage Contract                               | 50            |               |             |              |       | \$2000    |
|      | Periodic Reports                              | 50            |               |             |              |       | \$2000    |
|      | Grant Accounting                              | 25            |               |             |              |       | \$1000    |
|      | SUB-TOTAL TASK 4                              | 125           |               |             |              |       | \$5000    |
|      | GRAND TOTAL                                   | 125           | 125           | 335         | \$183,400    | 500   | \$312,400 |
|      | Hourly Rate                                   | \$40          | \$135         | \$90        | Lump Sum     | \$100 |           |

### **SCHEDULE**

Provide a project schedule including key milestones for each task and the completion dates or time period from the Notice to Proceed (NTP). This dating method allows flexibility in the event of potential delays from the procurement process. Sample schedules are provided below. Please note that these schedules are examples and will need to be adapted to fit each individual application.

| Task                   | Start Date     | Finish Date    |
|------------------------|----------------|----------------|
| Select Consultant      | Upon NTP       | NTP + 90 days  |
| 1 - Design Gages/Wells | NTP + 90 days  | NTP + 150 days |
| 2- Study/Model         | NTP + 150 days | NTP + 270 days |
| Development            |                |                |
| 3 - Bid Gage/Well      | NTP + 150 days | NTP + 180 days |
| Construction           |                |                |
| 4 - Gage Construction  | NTP + 210 days | NTP + 390 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.



