

WSRF – Cucharas Collaborative Storage Phase 3 POGG1 2019-2619

May 29, 2019

Huerfano County Water Conservancy District Attn: Carol Dunn, District Administrator P.O. Box 442 La Veta, CO 81055

Dear Grantee:

We are pleased to inform you that the Colorado Department of Natural Resources, Colorado Water Conservation Board (CWCB) has approved your grant request for funding pursuant to the WSRF Grant Program ("Program"). This letter authorizes you to proceed with the Cucharas Collaborative Storage Phase 3 Project ("Project") in accordance with the terms of this Grant Award Letter.

Attached to this letter are the terms and conditions of your Grant. Please review these terms and conditions, as they are requirements of this Grant to which you, Huerfano County Water Conservancy District, agree by accepting the Grant Funds.

If you have any questions or concerns regarding the project, please contact Ben Wade, Project Manager at 303-866-3441 or at Ben. Wade@state.co.us. Please send all grant correspondence directly to Craig and cc me on your invoice billing requests.

Thank you.

Sincerely,

//s//

**Doriann Vigil Program Assistant II** O 303-866-3441 ext. 3250 1313 Sherman Street, Rm. 719, Denver, CO 80203 Dori.vigil@state.co.us / cwcb.state.co.com





# STATE OF COLORADO

# Department of Natural Resources

Number: POGG1,PDAA,2019000029	16 The (	The order number and line number must appear on all				
<b>Date:</b> 5/29/19		invoices, packing slips, cartons, and correspondence.				
Description:	BILL	ТО				
PDAA 2500 WSRF - Cucharas Collab Storage Phase 3		COLORADO WATER BOARD CONSERVATION 1313 SHERMAN STREET, ROOM 718 DENVER, CO 80203				
Effective Date: 06/01/19 Expiration Date: 07/31/20 BUYER	SHIP	TO.				
Buyer:		ORADO WATER E		ERVATION		
Email: VENDOR	IDOR					
HUERFANO COUNTY WATER PO BOX 442	DEN	VER, CO 80203				
LA VETA, CO 81055-0442						
	SHIP	SHIPPING INSTRUCTIONS				
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Contact:	FOB	FOB: FOB Dest, Freight				
Phone:			Allowed			
VENDOR INSTRUCTIONS						
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Line Item Commodity/Item Code	UOM OTY	Unit Cost	Total Cost	MCDC Dog		
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Description: PDAA 2500 WSRF - Cuchara	•		\$4,000.00			
	•	Phase 3	\$4,000.00			
Description: PDAA 2500 WSRF - Cuchara Service From: 06/01/19	as Collab Storage l	Phase 3	\$4,000.00  Total Cost			
Description: PDAA 2500 WSRF - Cuchara Service From: 06/01/19	as Collab Storage l Service To	Phase 3 : 07/31/20				
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Colorado Water Conservation Board				
Water Supply Reserve Fund				
Exhibit A - Statement of Work				
Date:	April 4, 2019			
Water Activity Name:	Cucharas Collaborative Storage Study Phase 3			
Grant Recipient:	Huerfano County Water Conservancy District (HCWCD)			
Funding Source:	Water Supply Reserve Fund			

**Water Activity Overview:** (Please provide brief description of the proposed water activity (no more than 200 words). Include a description of the overall water activity and specifically what the WSRF funding will be used for.

The goal of this project (Phase 3) will be to further evaluate the geotechnical and engineering properties at two of the three final proposed dam sites for construction of reservoirs that will provide collaborative storage in the Cucharas River Basin and complete 30 percent design work on the third site. The additional geotechnical work will be completed on the Bruce Canyon and South Baker Creek sites. Geological and geotechnical properties of abutments at two of the inaccessible sites are required before 30 percent design recommendations can be made.

Phase 3 will focus on collecting additional geotechnical data needed to determine site feasibility in preparation for 30 percent design and final geotechnical investigation needed post-30 percent design. It is noted that 30 percent design of two sites is not included in this scope of work, but will be completed at a later date under a separate scope of work. The additional geotechnical work will include collecting additional site-specific geotechnical data, based on recommendations from the initial geotechnical investigation. This sub-task will involve drilling at the two previously inaccessible abutment locations, coring and permeability testing of foundation bedrock material at the two locations, and supplementing the Phase 2 geotechnical report with results and recommendations for 30 percent design of the remaining two sites.

Grant money from the WSRF will be used to perform the additional geotechnical investigation on the proposed abutments and engineering for an alternative dam (probably concrete gravity) at one location.



**Objectives:** (List the objectives of the project)

The primary objective of the project is to get additional geotechnical data needed to make geotechnical recommendations that will help determine feasibility of constructing two of the final reservoir sites, complete 30 percent design for a specialized dam at one site, and to begin design discussions with the Dam Safety Branch of the State Engineer's Office on 30 percent design.

#### **Tasks**

Provide a detailed description of each task using the following format:

### Task 1 – Site Access

Description of Task:

Construct site access to the two necessary drilling locations at the South Baker Creek and Bruce Canyon sites.

- Task 1.1 South Baker Creek
  - o Construct access for a track mounted drill rig to access the abutment location
- Task 1.2 Bruce Canyon
  - o Construct access for a track mounted drill rig to access the abutment location
- Permitting: a stormwater management permit will be obtained for the site access work.

#### Method/Procedure:

Access for the dam sites has been identified, as well as water sources for drilling. Access will be constructed for abutment locations at the South Baker Creek and Bruce Canyon reservoir sites. Property owners of the sites support the study and have been informed of planned activities related to this investigation.

Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

Site access will be constructed. A stormwater management permit will be obtained. Site access will be reclaimed by seeding at the conclusion of the work.

CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)

HCWCD will provide photographs of site access to document completion of this task.



#### **Tasks**

## Task 2 – Geotechnical Investigation

Description of Task:

Collect the remaining geotechnical data needed to more fully assess the viability of two sites, and to develop recommendations that will impact 30 percent level engineering design. The site-specific scope of work for this task shall include the following.

- Task 2a South Baker Creek
  - Drill at the abutment location not drilled during the initial geotechnical investigation, and identification of geological and geotechnical properties. We will also core the bedrock at the abutment location and complete packer testing to determine its hydraulic conductivity.
- Task 2b Bruce Canyon
  - Drill at the abutment location not drilled during the initial geotechnical investigation, and identification of geological and geotechnical properties. We will also core the bedrock at the abutment location and complete packer testing to determine its hydraulic conductivity.
- Task 2c Geotechnical Report
  - The methods and results of this phase of the geotechnical investigation will be added to the December 2018 geotechnical report for a complete picture on foundation bedrock material. This will provide adequate information to make 30 percent design recommendations. No meetings with the Cucharas Collaborative Storage stakeholder group have been included in this Statement of Work.

#### Method/Procedure:

Property owners of the sites support the study and have been informed of planned activities related to this investigation. The drilling program is anticipated to be completed in spring of 2019, pending weather and site access conditions. All drilling and testing will follow applicable ASTM standards. Results will be used to supplement the December 2018 geotechnical summary report and will be the basis for evaluating site suitability and making the final recommendation for 30 percent engineering design.

Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

Final deliverables for the HCWCD will be supplementation of the December 2018 geotechnical summary report with results of the additional geotechnical investigation and recommendations that will impact engineering design.

CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)

HCWCD will provide CWCB the final geotechnical report (same as above), which will include a list of recommendations to design revisions to incorporate into 30 percent design in a subsequent project.



#### **Tasks**

## Task 3 – South Baker Creek 30 Percent Design

Description of Task:

Complete 30 percent design for a concrete gravity dam at the South Baker Creek site. Coordinate with the Dam Safety Branch local dam engineer to get the State Engineer's feedback on the 30 percent design.

## Method/Procedure:

- Complete 30 percent design drawings based on recommended dam type from Task 1a above (likely to be roller compacted concrete, RCC, dam). It is anticipated that the South Baker Creek dam will need to be founded on the underlying sandstone bedrock, requiring over-excavation of up to 15 feet of granular soils.
- Meet with the Dam Safety Engineer for input on 30 percent design and make necessary modifications to address Dam Safety Engineer input.
- Provide Engineer's Opinion of Probable Cost (EOPC) based on revised 30 percent design plans.

Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

Final deliverable to the HCWCD will be 30 percent design drawings for the South Baker Creek site, including revisions based on input from the Dam Safety Branch of the State Engineer's Office.

CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)

HCWCD will provide CWCB copies of the 30 percent drawings for South Baker Creek site.

## <u>Task 4 – Administration</u>

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. The time requirements of administration for this grant exceed the District Administrator's time, for which she is now compensated or her availability to spend additional time. The amount budgeted for this task will be used either to compensate the Administrator for additional time spent on this grant or to employ an assistant to handle other matters, freeing up time for the Administrator to administer this grant.

Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

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



#### **Tasks**

CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)

Six month progress report(s) and final report.

## **Budget and Schedule**

**Exhibit B - Budget and Schedule:** This Statement of Work shall be accompanied by a combined <u>Budget and Schedule</u> that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in <u>excel format</u>. A separate <u>excel formatted</u> Budget is required for engineering costs to include rate and unit costs.

## **Reporting Requirements**

**Progress Reports:** The grantee shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status 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. The CWCB may withhold reimbursement until satisfactory progress reports have been submitted.

**Final Report:** At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

#### **Payments**

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

The CWCB will pay the last 10% of the <u>entire</u> water activity budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

## **Performance Requirements**

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum inkind contributions (if applicable) per the budget in Exhibit B. Per Grant Guidelines, the CWCB will pay out



## **Reporting Requirements**

the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

- (b) Accountability: Per the Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per the Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
- (c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.
- (d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.



## **Colorado Water Conservation Board**

## **Water Supply Reserve Fund**

**EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs** 

Date: December 4, 2018

Water Activity Name: Cucharas Collaborative Storage Geotechnical Phase 3

Grantee Name: Huerfano County Water Conservancy District

Task No. <sup>(2)</sup>	<u>Description</u>	Start Date <sup>(2)</sup>	End Date	Matching Funds (cash & in-kind) <sup>(3)</sup>	WSRF Funds (Basin & Statewide combined) <sup>(3)</sup>	<u>Total</u>
1	Site Access/rehabilitation	6/1/2019	11/1/2019	\$10,445	\$0	\$10,445
2a	South Baker Creek drilling	6/1/2019	9/1/2019	\$1,000	\$12,300	\$13,300
2b	Bruce Canyon drilling	6/1/2019	9/1/2019	\$600	\$12,700	\$13,300
2c	GeoTech Report	6/1/2019	11/15/2019	\$0	\$3,500	\$3,500
3	South Baker 30% Design	6/1/2019	12/31/2019	\$4,000	\$11,000	\$15,000
4	Administration 7.5%	6/1/2019	7/31/2020	\$0	\$4,500	\$4,500
			Total	\$16,045	\$44,000	\$60,045

(2) Start Date for funding under \$100K - 45 Days from Board Approval; Start Date for funding over \$100K - 90 Days from Board Approval.

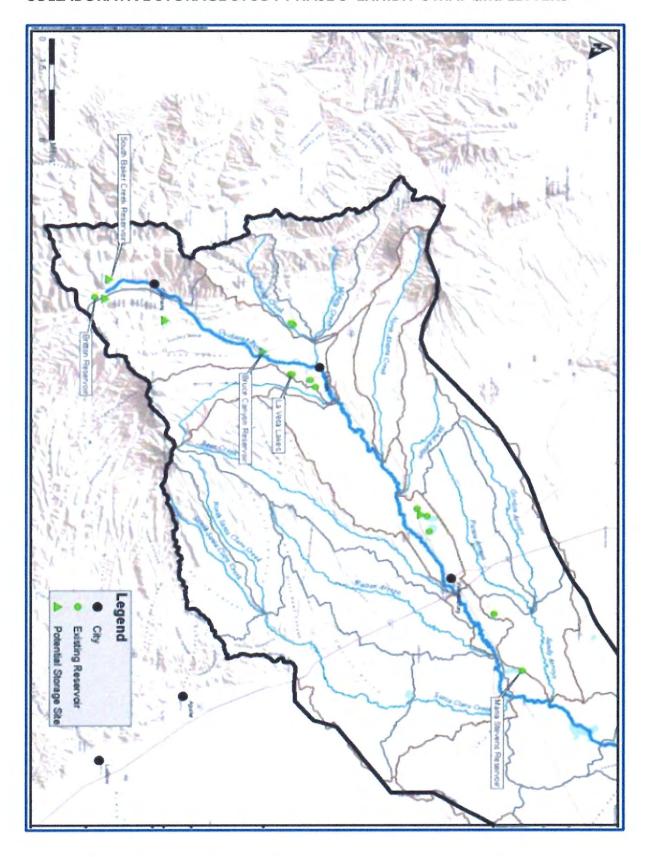
- Additional documentation providing a Detailed/Itemized Budget may be required for contracting. Applicants are encouraged to coordinate with the CWCB Project Manager to determine specifics.
- NTP will not be accepted as a start date. Project activities may commence as soon as the grantee enters contract and receives formal signed State Agreement.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of the CWCB staff project manager. Once the Final Report has been accepted, the final payment has been issued, the water activity and purchase order (PO) or contract will be closed without any futher payment. Any entity that fails to complete a satisfactory Final Report and submit to the CWCB with 90 days of the expiration of the PO or contract may be denied consideration for future funding of any type from the CWCB.

· Additonally, the applicant shall provide a progress report every 6 months, beginning from the date of contract execution

<sup>(3)</sup> Round values up to the nearest hundred dollars.

## **COLLABORATIVE STORAGE STUDY PHASE 3 EXHIBIT C MAP and LETTERS**



Applegate Group, Inc.

Water Resource Advisors for the West

1490 West 121st Ave., Ste 100 Phone: (303) 452-6611
Denver, CO 80234-2728 Fax: (303) 452-2759
www.ApplegateGroup.com e-mail: info@applegategroup.com

# **Cucharas Storage Study**

Bruce Canyon Reservoir Drainage Area

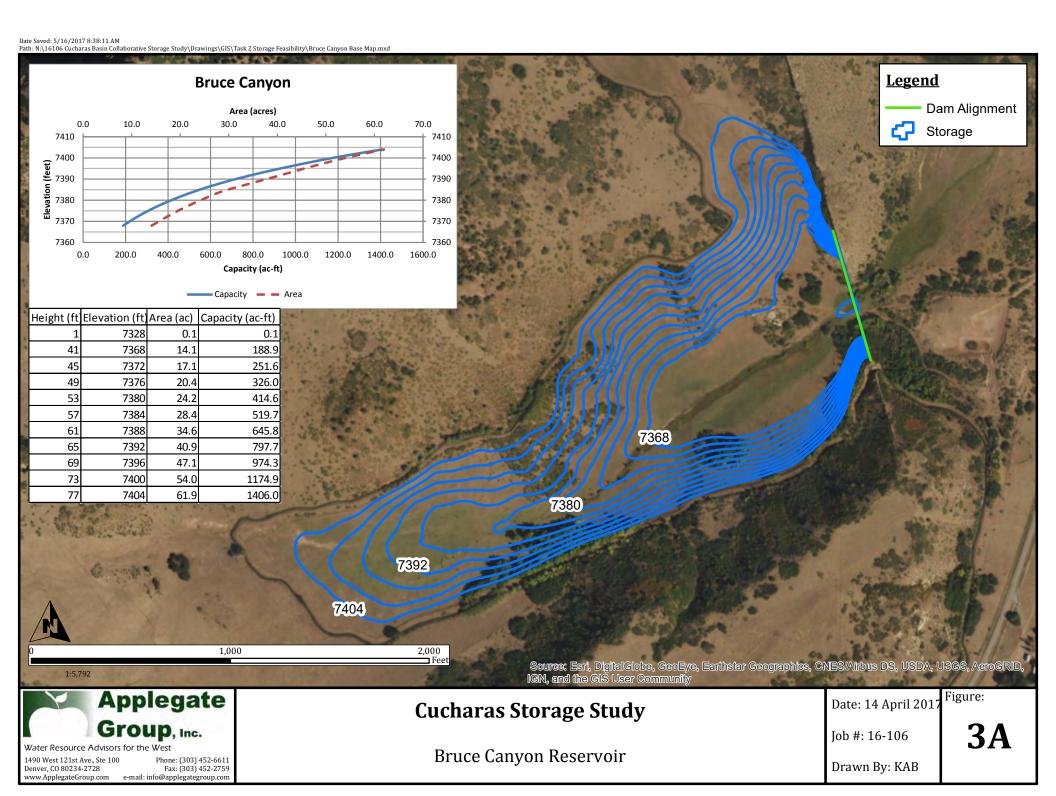
Date: 14 April 2017

Job #: 16-106

Drawn By: KAB

Figure:

3B











Group, Inc.

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South Baker Creek Drainage Area

Job #: 16-106

Drawn By: KAB

**1B** 

