



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

WSRF Grant – North Platte – Cont. Weather
Stations North Park Project
POGG1 2020-3022

April 14, 2020

Colorado State University
Attn: Lisa Anaya
2002 Campus Delivery
Fort Collins, CO 80523-2002

Dear Grantee:

We are pleased to inform you that the Colorado Department of Natural Resources, Colorado Water Conservation Board (CWCB) has approved your request for funding for your project pursuant to the WSRF Grant Program (“Program”). This letter authorizes you to proceed with the approved 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, CSU, agree by accepting the Grant Funds.

If you have any questions or concerns regarding the project, please contact Craig Godbout, Project Manager at 303-866-3441 or at Craig.Godbout@state.co.us. Please send all grant correspondence directly to the project manager 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.us

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STATE OF COLORADO
Department of Natural Resources

Page 1 of 1

ORDER				*****IMPORTANT*****			
Number: POGG1,PDAA,202000003022				The order number and line number must appear on all invoices, packing slips, cartons, and correspondence.			
Date: 4/10/20							
Description: WSRF - CSU CONT. OF WEATHER STATIONS NORTH PARK				BILL TO			
				COLORADO WATER BOARD CONSERVATION 1313 SHERMAN STREET, ROOM 718 DENVER, CO 80203			
Effective Date: 05/01/20							
Expiration Date: 04/30/23							
BUYER				SHIP TO			
Buyer:				COLORADO WATER BOARD CONSERVATION 1313 SHERMAN STREET, ROOM 718 DENVER, CO 80203			
Email:							
VENDOR				SHIPPING INSTRUCTIONS			
COLORADO STATE UNIVERSITY Sponsored Programs 2002 Campus Delivery Fort Collins, CO 80523-2002				Delivery/Install Date: - FOB: FOB Dest, Freight Allowed			
Contact: Lisa Anaya							
Phone: 970-491-0537							
VENDOR INSTRUCTIONS							
EXTENDED DESCRIPTION							
Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.	
1	G1000		0	0.00	\$17,884.00	<input type="checkbox"/>	
Description: WSRF - CSU CONT. OF WEATHER STATIONS NORTH PARK							
Service From: 05/01/20				Service To: 04/30/23			
TERMS AND CONDITIONS							
https://www.colorado.gov/pacific/osc/small-dollar-grant-award-terms-conditions							
DOCUMENT TOTAL = \$17,884.00							

Last Update: January 9, 2018

Colorado Water Conservation Board	
Water Supply Reserve Fund	
<u>Exhibit A - Statement of Work</u>	
Date:	April 2, 2020
Water Activity Name:	Continuation of Weather Stations for North Park lysimeters to determine high altitude, hay meadow crop coefficients.
Grant Recipient:	Colorado State University (CSU)/Colorado Climate Center (CCC)
Funding Source:	North Platte Basin Roundtable Account-WSRF
<p>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.</p> <p>In 2016, two Lysimeters were installed adjacent to the Cowdrey CoAgMET station to better quantify consumptive use in the North Platte Basin. Due to unforeseen issues with the lysimeters prevented quality data to be collected for the first two years of the project. In order to collect enough quality data, this project needs at least three more years of data collection.</p> <p>The CoAgMET weather stations are used to calculate American Society of Civil Engineers Reference ET (ET), while the lysimeters collect actual consumptive use. The data from each are then compared and used to calculate crop coefficients for hay meadow environment.</p> <p>This grant will continue the maintenance and operation of the three CoAgMET stations. Annual visits to the weather stations will be made in the spring to ensure the stations are functioning properly and replace bearings for wind monitors. Every other year temperature/relative humidity sensors and pyranometers (solar radiation) will be replaced and calibrated. Other maintenance visits will be completed to fix issues that may arise between scheduled visits.</p> <p>Wendy Ryan, with Colorado River Engineering, will maintain the lysimeters and calculate the consumptive use and crop coefficients.</p>	
<p>Objectives: (List the objectives of the project)</p> <ol style="list-style-type: none"> 1. Continue operation and maintenance of the three weather stations in the North Platte at Cowdrey, Larand and Hebron 2. Continued public availability of high-quality weather and reference evapotranspiration data. 3. Continue working with Colorado River Engineering to deliver weather station and reference ET data so Wendy Ryan with can calculate appropriate crop coefficients for hay meadows in the North Platte Basin. 	



Last Update: January 9, 2018

Tasks
Provide a detailed description of each task using the following format:
<u>Task 1 - Weather Station Maintenance</u>
Description of Task: Continued operation and maintenance of the three CoAgMET Weather Stations in the North Platte to supply high quality weather data and reference evapotranspiration data on the CoAgMET website.
Method/Procedure: Annual maintenance will be performed by CoAgMET staff. Each year, wind bearings will be changed, batteries replace if voltage is getting low and other equipment checked. Every other year the temperature/relative humidity sensors and pyranometers (solar radiation sensors) will be replaced with recalibrated equipment to ensure data quality. In the event of equipment malfunction or data issues between service visits, special emergency visits will be made. Data is then transmitted to the Colorado Climate Center via Radio transmitter and internet. Automated quality checks are performed, and data is online within minutes of being collected by the station. Within the next couple of days, the data is looked at by CoAgMET staff in closer detail for further quality control checks. If data looks suspicious, it is flagged and fixed or removed.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Publicly available weather data accessible on the CoAgMET site: coagmet.colostate.edu . All weather parameters are available in 5-minute, hourly and daily format and data are archived. Reference ET is calculated on the site and available in real-time. Quality reference ET data will be supplied to Wendy Ryan and Colorado River Engineering.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
A record and summary of weather data collected by the CoAgMET stations and calculated reference ET used to complete analysis of crop coefficients. Service logs and maintenance records will be available upon request.

Last Update: January 9, 2018

Budget and Schedule

Exhibit B - Budget and Schedule: This Statement of Work shall be accompanied by a combined [Budget and Schedule](#) that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format. A separate excel formatted 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 entire 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 in-kind contributions (if applicable) per the budget in Exhibit B. Per Grant Guidelines, the CWCB will pay out 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**Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board**Water Supply Reserve Fund****EXHIBIT B - BUDGET AND SCHEDULE - Direct & Indirect (Administrative) Costs****Date: 04/02/2020****Water Activity Name: Continuation of Weather Stations for North Park lysimeters to determine high altitude, hay meadow crop coefficients.****Grantee Name: Colorado State University (CSU) / Colorado Climate Center (CCC)**

Task No. ⁽¹⁾	Description	Start Date ⁽²⁾	End Date	Matching Funds (cash & in-kind) ⁽³⁾	WSRF Funds (Basin & Statewide combined) ⁽³⁾	Total
1	Weather Station Maintenance	5/1/2020	4/30/2023	\$4,500	\$17,900	\$22,400
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
Total				\$4,500	\$17,900	\$22,400
Percent of Total Project Costs (CWCB Pro rata reimbursement rate)				20%	80%	100%

(1) The single task that include costs for Grant Administration must provide a labor breakdown (see Indirect Costs tab below) where the total WSRF Grant contribution towards that task does not exceed 15% of the total WSRF Grant amount.

(2) Round values up to the nearest hundred dollars.

• 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.

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 further 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.

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