COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Rio Grande – Groundwater Level Telemetry
POGG1 2019-2188

September 7, 2018

Rio Grande Water Conservation District
Attn: Cleve Simpson, General Manager
Attn: Chester Tokarsky, Project Manager
8805 Independence Way
Alamosa, CO 81101

Dear Grantee:

We are pleased to inform you that the Colorado Department of Natural Resources, Colorado Water Conservation Board (CWCB) has approved your application for funding pursuant to the WSRF Grant Program ("Program") for $71,348.00. This letter authorizes you to proceed with the Groundwater Level Telemetry 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 Rio Grande Water Conservation District, agree by accepting the Grant Funds.

The WSRF Criteria & Guidelines can be located on our website for additional information.

If you have any questions or concerns regarding the project, please contact Megan Holcomb, Project Manager at 303-866-3441 or at Megan.Holcomb@state.co.us. Please send the 6-month progress reports and invoices directly to the Project Manager and cc me at Dori.vigil@state.co.us.

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

Attachments

STATE OF COLORADO

Department of Natural Resources

ORDER	******IMPORTANT******
Number: POGG1,PDAA,201900002188	**The order number and line number must appear on all invoices, packing slips, cartons, and correspondence. Please review each line for its corresponding shipping/ billing address and delivery instructions.**
Date: 9/7/18	
Description: PDAA 2500 WSRF RG GW TELEMTRY	
Effective Date: 09/10/18 **Expiration Date:** 04/30/20	

BUYER

Buyer:

Email:

VENDOR

RIO GRANDE WATER CONSERVATION DIST
8805 Independence Wy
Alamosa, CO 81101

Contact: .

Phone: .

EXTENDED DESCRIPTION

Line Item	Commodity/Item Code	UOM	QTY	Unit Cost	Total Cost	MSDS Req.
1	G1000		0	0.00	$71,348.00	☐

Description: PDAA 2500 WSRF RG GW TELEMTRY

Service From: 09/10/18 Service To: 04/30/20

Delivery Instructions

FOB: FOB Dest, Freight Allowed Delivery Date: -

Ship To:	Bill To:
COLORADO WATER BOARD CONSERVATION	COLORADO WATER BOARD CONSERVATION
1313 SHERMAN STREET, ROOM 718	1313 SHERMAN STREET, ROOM 718
DENVER, CO 80203	DENVER, CO 80203

TERMS AND CONDITIONS

https://www.colorado.gov/pacific/osc/small-dollar-grant-award-terms-conditions

DOCUMENT TOTAL = $71,348.00

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Exhibit A - Statement of Work

Date: (include all edit date)	**5/1/2018**
Water Activity Name:	**Rio Grande Water Conservation District Groundwater Telemetry Project**
Grant Recipient:	**Rio Grande Water Conservation District**
Funding Source:	**Rio Grande Basin ($ 71348.00) (75%). Rio Grande Water Conservation District (23822.00) (25%)**

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 proposed water project will use WSRF funding for the installation, management and production of automatic groundwater telemetry systems and data for the Unconfined Aquifer Storage Study Area north of the Rio Grande River around or near the cities of Monte Vista, Del Norte, Center, Mosca and Hooper.

The project includes installation of 25 well telemetry units within the boundaries of the "Special Improvement District Number 1" at our historical observation well locations. The telemetry units would be used to send data from the well twice a day for all 25 wells in the study area. The project would provide a one-year monitoring operation funding to take place for all current measurements at the observation wells within the Unconfined Aquifer Storage Study Area. WSRF funding includes the well telemetry unit, transducer, vented cables and other primary components from the telemetry company, In-Situ. The Rio Grande Water Conservation District (RGWCD) after the first year of operation and data collection will begin to fund the project for long-term usage.
HydroVu services will act as multiple platform tool to backup new data, present data for each of the 25 wells for both administrative and public viewing and eventually sharing data in multiple formats for other users, publications or studies.

Objectives: (List the objectives of the project)

1.) **Purchase 25 telemetry units and components for install**
2.) **HydroVu Services and Cellular Data Plans**
3.) **Administration, reporting, completion of project and final reports. Additional parts for completion of project.**

Tasks
Provide a detailed description of each task using the following format:
Task 1 - (Name) Physical Installation and Construction
Description of Task:
Purchasing, Installation and Construction of the Telemetry Units and Pressure Transducers at all 25 Well Sites.
Method/Procedure:
Timeline: November 2018 – February 2018 Installation and maintenance by the RGWCD Hydrologic Technician will include the placement of the telemetry unit, cable and pressure transducers permanently for each well site for the 25 well locations within Sub District's Study Area. Major components of the telemetry setup will be provided by In-Situ which includes their online data service provider HydroVu. Protocols included for each well will collect water well depths twice a day consistent measuring for all wells within the study area. Telemetry units will be installed and programmed to begin collecting data next day of installation and transmitting data each morning. Task 1 will include all major expenditures from In-Situ in relation to purchasing for the 25 well locations and telemetry systems.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
Operational well telemetry units for the 25 wells which will be represented on HydroVu once the well is installed and operational. The well will be completed, installed and functioning to collect data. Records indicating the unit is working correctly and data is visible through the HydroVu Website marking date and time for each well for completion.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Major Purchase orders from In-Situ will be included as a copy to show that WSRF grant funding was used to purchase the primary components necessary for installation from In-Situ. Two separate purchase orders will be included to show the 75% contribution for units by WSRF grant funding and a separate purchase order for the 25% RGWCD contributions to the project for this task. Documentation will include the date of installation for each unit and additional photos for each well to be processed within 4 months of receiving funding for units. This will provide time to accomplish correct orders from In-Situ on time and complete without any possible setbacks.

Tasks
Provide a detailed description of each task using the following format:
Task 2 - (Name) Data Monitoring by HydroVu and Cellular Plans for telemetry units
Description of Task: Finalize data monitoring efforts to be presented on HydroVu to be visible and recording data for the 25 well locations.

Tasks
Method/Procedure:
Ensuring all well telemetry units and pressure transducers are working and communicating with HydroVu web services to begin providing online viewing for all 25 wells within the study area. Task 2 will include (1st Year) Cellular Data Plan and HydroVu Services for the 25 telemetry units. Activation occurs once a unit is installed, tested and posting data online to HydroVu
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
To provide access and operations of HydroVu for public and administrative purposes. To begin consistent and calibrated data collection and monitoring from the 25 well locations.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The RGWCD hyperlink can be added to show the HydroVu data services to the CWCB to view data for observational data collection from 25 well locations in the study area. Cost of the 1st year of the cellular data plan and HydroVu services from In-Situ will be included as a cost within the major purchase order from In-Situ as the contribution from RGWCD.

Tasks
Provide a detailed description of each task using the following format:
Task 3 - Administration, reporting, completion of project and final reports. Additional parts for completion of project
Description of Task:
Task 3 includes base salary for program Technician to construct and install telemetry units to perform automatically with HydroVu web services. This will include fixing issues or problems that arise with the project.The cost of this task will be considered an “in-kind” contribution to be carried out as part of the 25% match by the RGWCD.
Method/Procedure:
Administration will include the RGWCD Program Technician insuring all well telemetry units are installed with proper additional parts in the well and are communicating properly, daily with HydroVu web services. Authorizing HydroVu services to be available for viewing purposes on the RGWCD Website or at least by hyperlink to the HydroVu Website. Any problems or issues with units to be described and maintained by the RGWCD Program Technician. 6-month progress reports and the final deliverable report needed to complete the WSRF Grant Contract will be managed and produced for CWCB by the RGWCD Program Technician (Chet Tokarsky). Cost was calculated based on technician’s regular salary for 100 hours of service to the project along with the cost of additional parts to hold the telemetry units safely in place in the well. (nuts, bolts and safety cables).
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
The wells will be completed installed and functioning to collect data to begin providing correct information for viewers on HydroVu.

Tasks
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
Operational well telemetry units for the 25 wells which will be represented on HydroVu once the well is installed and operational. Receipts of the costs for additional parts to hold the units in the well in combination with the salary of the technician will be included for reporting purposes.

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.

Reporting Requirements
Reporting: The grantee shall provide their respective Roundtable(s) and the CWCB a Progress Report every 6 months, beginning from the date of executed contract. The Progress Report shall describe the status of the water activity, the completion or partial completion of the tasks identified in the Statement of Work – Exhibit A including a description of any major issues that have occurred and any corrective action to address these issues. The CWCB may withhold reimbursement until satisfactory Progress Reports have been submitted.
Final Deliverable: At the completion of the water activity, the grantee shall provide their respective Roundtable(s) and the CWCB a final report on the grantee's letterhead that: • Summarizes the water activity and how the water activity was completed • Describes any obstacles encountered, and how these obstacles were overcome • Explains the Proposed Budget versus the Actual Budget • Confirms that all matching commitments have been fulfilled • Includes photographs, summaries of meeting and engineering reports/design, if appropriate 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.

Colorado Water Conservation Board

Water Supply Reserve Fund

EXHIBIT B - BUDGET AND SCHEDULE

Date: 6/1/2018

Water Activity Name: Rio Grande Water Conservation District Groundwater Telemetry Project

RGWCD - Special District

Task No.[1]		Start Date[2]	End Date	Matching Funds (cash & in-kind)[3]	WSRF Funds (Basin & Statewide combined)[3]	Total
1	Purchase 25 telemetry units and components for install	9/10/2018	2/1/2019	$ 10,406.00	$ 71,348.00	$81,754
2	HydroVu Services and Cellular Data Plans (first year)	2/1/2019	2/1/2019	$ 10,500.00	-	$10,500
3	Administration, reporting, completion of project and final reports. Additional parts for completion of project.	9/10/2018	4/30/2020	$ 2,916.00	-	$2,916
						$0
						$0
						$0
						$0
						$0
			Total	$23,822	$71,348	$95,170

(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

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

(3) Round values up to the nearest

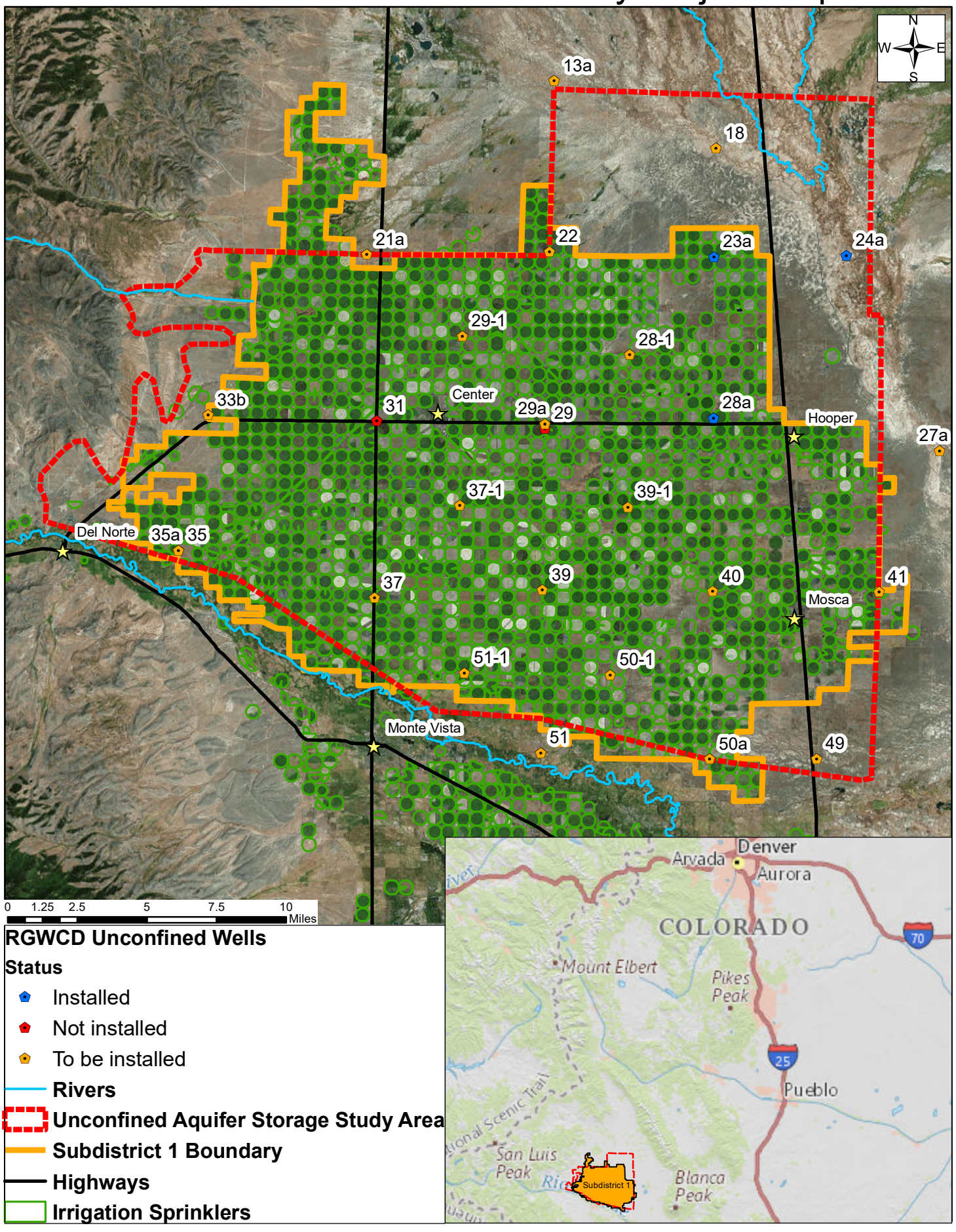
• Reimbursement eligibility commences upon the grantee's receipt of a Notice to Proceed (N

• 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.

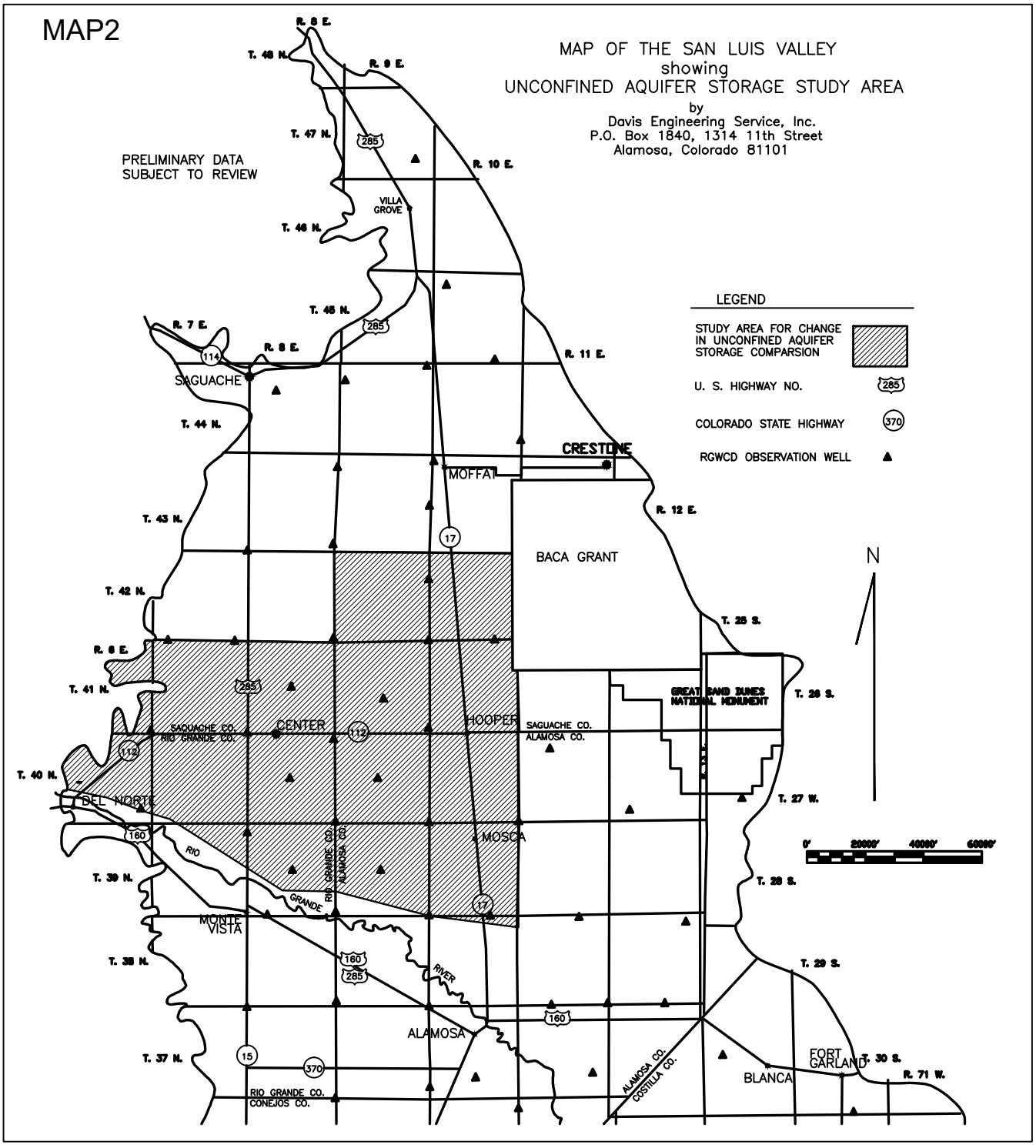
• Additonally, the applicant shall provide a progress report every 6 months, beginning from the date of contract execution
• Standard contracting proceedures dictate that the Expiration Date of the contract shall be 5 years from the Effective Date.

RGWCD Groundwater Telemetry Project Map



MAP #1: Map of the project area for the proposed well telemetry installations.

MAP2



EXPLANATION

Change in unconfined aquifer storage has been calculated for a defined area which is shown on the above map. The changes in aquifer storage were based on approximately 27 RGWCD monitoring wells located within the area. The method of computing the change in aquifer storage was in accordance with the Thiessen mean method whereby a polygon is constructed around each observation well and the assumption is made that the change in water level throughout the area of the polygon is the same as the change in the well within the polygon. A graph showing changes since 1976 is attached. Zero on the vertical axis of the graph was assumed as corresponding to 1976 for graphing purposes; however, it should not be assumed that the unconfined aquifer was at equilibrium as of that date.