Alternative Agricultural Water Transfer Method Grant Program
Water Activity Summary Sheet
July 15, 2020
Agenda Item 7b

Applicant & Grantee:	Rio Grande Water Conservation District/Subdistrict No. 6
Water Activity Name:	Alamosa River Alternative Transfer Method Project
Water Activity Purpose:	Develop a district-wide historic consumptive use analysis to support potential water leasing opportunities
Drainage Basin:	Rio Grande
Water Source:	Alamosa River
Amount Requested:	$51,682
Matching Funds:	**$5,742** total match

Staff Recommendation
Staff recommends approval of up to $51,682 from the Alternative Water Transfer Methods Program to help fund the "Alamosa River ATM" project.

Water Activity Summary: The purpose of the Alamosa River alternative transfer method project is to establish a one-year rotational fallowing pilot project to test the ability to use temporary, alternative transfer methods to replace injurious depletion due to groundwater pumping.

The Colorado Division of Water Resources (DWR) and State Engineer have adopted administrative rules and regulations for the Rio Grande Basin that seek to protect senior surface water right from material injury due to groundwater pumping, supporting a sustainable water supply in the confined aquifer, and to avoid unreasonable inference with the state's ability to fulfill its obligations under the Rio Grande Compact. The state rules encourage the use of groundwater management subdistricts to utilize self-regulation and economic-based incentives. If subdistricts are unable to meet these goals, the state may impose limitations on groundwater diversion, including complete curtailment of groundwater withdrawals. Subdistrict No. 6 covers wells in the Alamosa-La Jara area in the southwestern corner of San Luis Valley.

Subdistricts purchase, lease, or retire water rights to replace injurious stream depletions resulting from the withdrawal of groundwater wells. Subdistrict plans also authorize the use of reduced irrigation to assist in the mitigation of injurious stream depletions. The Rio Grande Basin presents an interesting opportunity to utilize alternative transfer methods and other voluntary water conservation strategies to address injury concerns while avoiding the permanent dry-up of irrigated agriculture and curtailment of groundwater withdrawals.

The general concept of the Alamosa ATM project would be the creation of a rotational fallowing program in which producers under four ditch systems (Alamosa Creek Canal, Terrace Main Canal, Capulin Ditch, and the Valdez Ditch) will voluntarily fallow a portion of all of their irrigated acres for compensation from the Subdistrict No. 6. The Subdistrict would then take the conserved consumptive use from the fallowed irrigation lands and use it to provide water to the stream to

replace the injurious groundwater depletions at time, place, and amount. The scope of this initial funding request will include the engineering work to develop a ditch-wide consumptive use analysis that is used to quantify an acre-foot per acre value that will be used in the lease fallow program. Rio Grande Water Conservation District staff will develop program guidelines of who will be eligible, how the accounting will take place, and when/how participating producers will be compensated.

Discussion: Staff supports the application based on the following considerations: the project will collect information necessary to assess the use of rotational fallowing on a ditch-wide scale to further basin water resource management objectives without the permanent dry-up of irrigated agriculture; serve as a potential model for further ATM development in the Rio Grande Basin; build on research completed through previous CWCB ATM funded projects; the project will help meet the Rio Grande Basin Implementation Plan's goal of managing water to sustain an optimal agricultural economy, and this effort will further the Colorado Water Plan Measurable Objectives and Critical Goals and Actions concerning ATMs.

Issues/Additional Needs: Staff will work with the applicant/grantee to coordinate conversations with DWR regarding the project and assess opportunities to build on the HCU analysis.

CWCB Project Manager: Alexander Funk

COLORADO WATER CONSERVATION BOARD

ALERNATIVE AGRICULTURAL WATER TRANSFER METHODS COMPETITIVE GRANT PROGRAM

GRANT APPLICATION FORM

Alamosa River ATM	Rio Grande
Program/Project Name	**River Basin Name**

$51,682.00	$5,742.00
Amount of Funds Requested	Amount of Matching Funds

Instructions: This application form must be submitted in electronic format (Microsoft Word or Original PDF). The application can be emailed or a disc can be mailed to the address at the end of the application form. The Alternative Agricultural Water Transfer Methods Competitive Grant Program, Criteria and Guidelines can be found at http://cwcb.state.co.us/LoansGrants/alternative-agricultural-water-transfer-methods-grants/Pages/main.aspx. **The criteria and guidelines must be reviewed and followed when completing this application**. You may attach additional sheets as necessary to fully answer any question, or to provide additional information that you feel would be helpful in evaluating this application. Include with your application a cover letter summarizing your request for a grant. If you have difficulty with any part of the application, contact Craig Godbout of the Water Supply Planning Section (Colorado Water Conservation Board) for assistance, at (303) 866-3441 x3210 or email at craig.godbout@state.co.us. Generally, the applicant is also the prospective owner and sponsor of the proposed program/project. If this is not the case, contact Craig before completing this application.

2. Person to contact regarding this application if different from above:

Name:	Amber Pacheco
Position/Title	Program Manager

3. If the Contracting Entity is different then the Applicant, please describe the Contracting Entity here.

N/A

4. Provide a brief description of your organization. The applicant may be a public or private entity. Given the diverse range of potential applicants, not all of the following information may be relevant. Where applicable and relevant the description should include the following:

   a) Type of organization, official name, the year formed, and the statutes under which the entity was formed, a contact person and that person's position or title, address and phone number. For private entities, a copy of the Articles of Incorporation and By-laws should be appended to the application.

   The Rio Grande Water Conservation District is a Special District created by the Colorado General Assembly in Sections 37-48-101, *et seq.* C.R.S. Special Improvement District No. 6 (also referred to as "Subdistrict No. 6") is a subdistrict of the Rio Grande Water Conservation District created by the District and approved by the District Court under Sections 37-48-108 and 37-48-123-126, C.R.S. By resolution, the Board of Managers of Subdistrict No. 6 has established a Water Activity Enterprise pursuant to Title 37, Article 45.1, C.R.S.

   The contact for this application is Amber Pacheco, Program Manager for Special Improvement District No. 6. The address is 8805 Independence Way, Alamosa, CO, 81101 and the phone number is (719) 589-6301.

   b) For waters suppliers, information regarding the number of customers, taps, service area, and current water usage, and future growth plans, water related facilities owned or used, funding/revenue sources (existing service charges, tap fees, share assessments, etc.), the number of members or shareholders and shares of stock outstanding or a description of other means of ownership.

   N/A

   c) For other entities, background, organizational size, staffing and budget, and funding related to water that is relevant in determining whether the applicant has the ability to accomplish the program/project for which funding is sought.

   The Rio Grande Water Conservation District is controlled by a Board of Directors, appointed by the County Commissioners within the District. Subdistrict No. 6 and its Water Activity Enterprise is governed by a Board of Managers whose members are nominated to represent surface water entities with members in the Subdistrict, but appointed by and serve at the pleasure of the Board of Directors of the District. The District is staffed with 11 individuals and relies on certain outside consultants for legal and engineering work. The Subdistrict is financed by reasonable service and user fees through the Subdistrict's Water Activity Enterprise, and special assessments on property within the Subdistrict, as allowed by statute. These annual assessments are placed on the tax rolls of Alamosa, Conejos and Rio Grande Counties and collected in the same manner as property taxes. The annual assessments are set by the Board of Managers on an annual basis in an amount necessary to fund the Subdistrict's budget. The 2020 budget for the Subdistrict's remedy of injurious depletions and administrative costs is $1,437,250.00.

   d) A brief history of the Applicant(s).

Special Improvement District No. 6 of the Rio Grande Water Conservation District was established by the Conejos County District Court on October 8, 2018 in Case 2018CV30014. The overall purpose of this Subdistrict is to provide a community-oriented water management alternative to individual augmentation plans or state-imposed regulations limiting the use of wells in Water Division No. 3. That is, to provide a mechanism through which a group of well users in the Alamosa-La Jara Response Area can work collaboratively to develop and implement a system of self-regulation using economic-based incentives and other management tools that promote responsible and sustainable groundwater management and that remedies the injury to senior surface water rights that result from groundwater use from Subdistrict wells.

e) *Please include any relevant Tabor issues relating to the funding request that may affect the Contracting Entity.*

As the Subdistrict has established a Water Activity Enterprise, there are limited TABOR restrictions that would affect the ability of the Subdistrict to accept a loan or to maintain the ability to make the repayment on that loan.

Part B. - Description of the Alternative Water Transfer Program/Project –

1. Purpose of the Program/Project

The ultimate goal of the project is to provide a way for Subdistrict members to comply with the Division of Water Resources' rules and regulations and the Subdistrict's own requirements to protect and continue the agricultural economy for the Alamosa-La Jara area. Although some members of the Subdistrict are not directly involved in agricultural obligations, such as towns or cemeteries, they are still part of the support for the agricultural community.

Subdistrict No. 6 is located in the southwestern portion of the San Luis Valley and will be required to replace injurious depletions to the Alamosa River caused by groundwater withdrawals from wells that are owned by individuals/entities who participate in the Subdistrict. One of the sources to provide remedies to surface water users on the Alamosa River will come from a rotational fallow program on the Alamosa River. The general concept would be for producers with surface water irrigated lands to fallow their land for one year and the consumptive use from that irrigation would be used by Subdistrict No. 6 to replace the injurious depletions ("Alamosa River ATM").

The Alamosa River ATM will consist of four different ditch systems; Alamosa Creek Canal, Terrace Main Canal, Capulin Ditch, and the Valdez Ditch. A rotational fallow program will be created so the producers under these ditch systems could voluntarily choose to fallow a portion (or all) of their irrigated acres for payment compensation from Subdistrict No. 6. Subdistrict No. 6 would then take the consumptive use from the fallowed irrigation lands and use it to provide water to the stream to replace the injurious depletions at time, place and amount. The augmentation water created from the program could be left in the river or stored in a reservoir and released at a later date in order to meet the time, place, and amount requirement.

This scope of this initial funding request will include the engineering work to develop a ditch-wide consumptive use analysis that will be used to quantify an acre-foot per acre value that will be used in the lease fallow program. RGWCD staff will develop program guidelines of who will be eligible, how the accounting will take place for the program and when/how the producer participating will be compensated. Legal work will include investigation of ditch service areas (if discrepancy arrives), develop a contract for participating producers, and review program guidelines for compliance with existing laws and regulations.

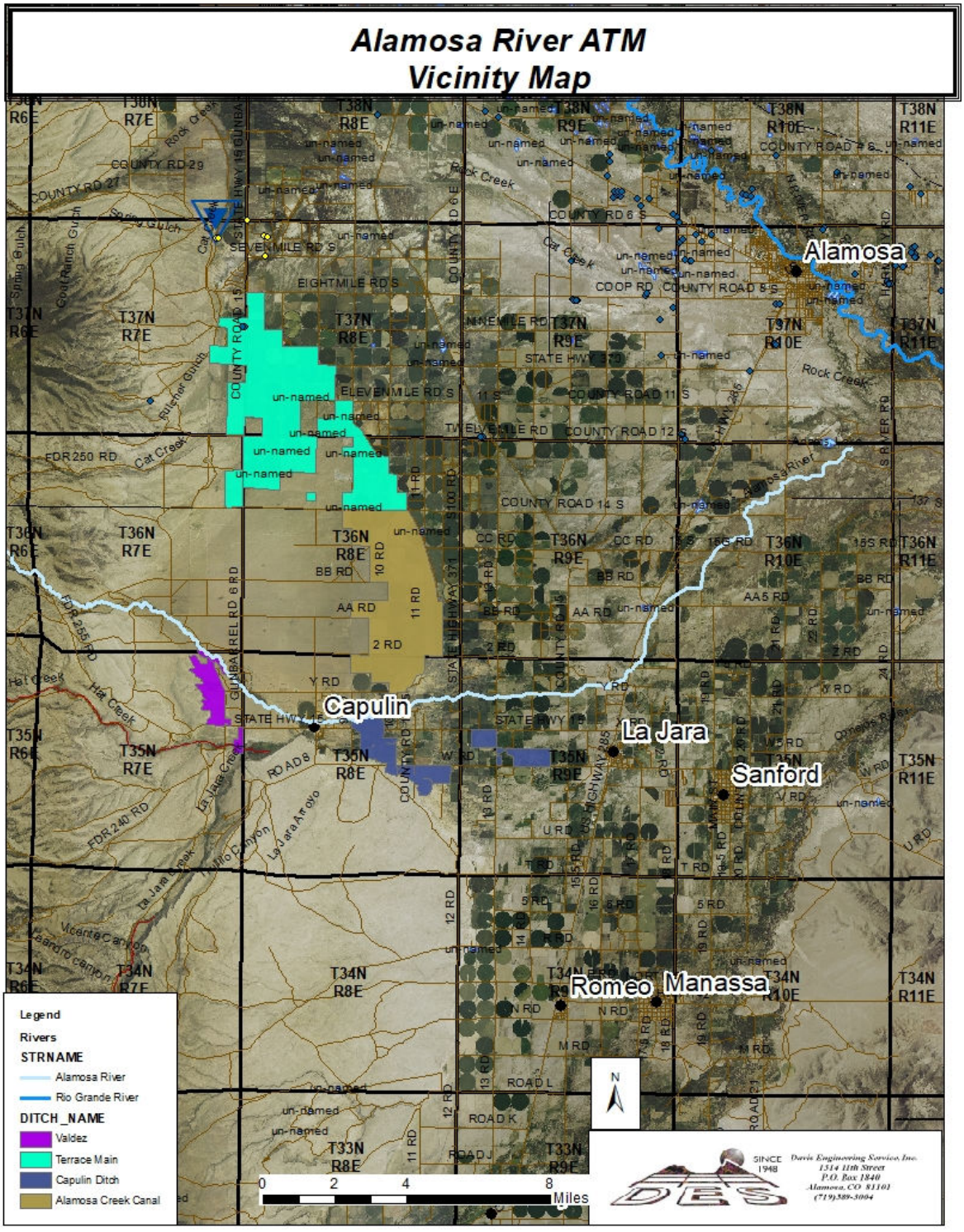
2. Study Area/Service Area Description

The Study Area is located in the southwesterly portion of the San Luis Valley. The Study Area will be made up by four ditch/canal service areas. As described above, the four irrigation entities that will be part of the project are:

- Alamosa Creek Canal
- Terrace Main Canal
- Capulin Ditch
- Valdez Ditch

All four of the ditches/canals that will be part of the program divert from and are located along the Alamosa River. The vicinity map below (Figure 1) includes the ditch service areas of all four irrigation entities that will be participating in the program.

Figure 1 – Alamosa River ATM Vicinity Map



The economy in this area is predominately controlled by the agricultural sector. Crops grown in the San Luis Valley include alfalfa, native grass hay, wheat, barley, sorghum, canola, spinach, lettuce, carrots, and potatoes. Some of the other economic sectors include forestry, tourism, and mining.

The San Luis Valley is a large intermountain basin covering approximately 3,200 square miles of land in southern Colorado and northern New Mexico. The valley is bordered by the Sangre de Cristo Mountains to the east and northeast, the San Juan and La Garita Mountains to the west and northwest, and the Taos Plateau to the south. Snowmelt from the mountains around the valley is responsible for most of the area's stream flow in the associated watershed, including the Rio Grande and Conejos Rivers. Approximately 56 percent of the valley is in private ownership. The remaining acres are protected and managed by the Service, USFS, BLM, National Park Service, and State of Colorado. Most of the private land and wetland habitat occurs on the valley floor, creating one of the largest intermountain valleys in the world.

The four ditch/canal services areas which will be part of the project span across two different counties Rio Grande and Conejos. Alamosa Creek Canal, Valdez Ditch, and Capulin Ditch service areas are located in Conejos County. The Terrace Main Canal service area is located in both Rio Grande and Conejos Counties. In 2010, Rio Grande County had a population of 11,982 and Conejos County had a population of 8,256.

Each section below includes a map of the ditch/canal service area and a summary table of the irrigated acres within that service area. The concept of the project is that anyone who has irrigated lands within the ditch service area could choose to fallow that land for a year and receive compensation from Subdistrict No. 6. Subdistrict No. 6 would then use the consumptive use from those lands as an augmentation source for the well users.

Alamosa Creek Canal

Figure 2 – Alamosa Creek Canal Ditch Service Area

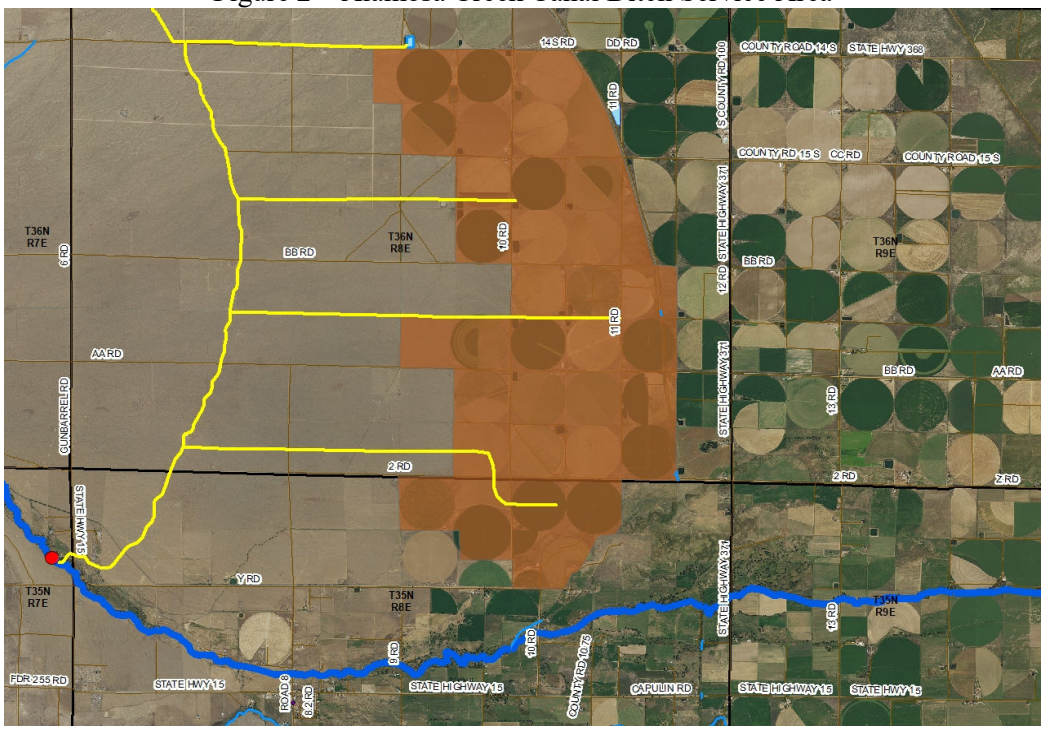


Table 1 – Irrigated Acres within Alamosa Creek Canal

Year	# of Acres under each Crop									**Total Acres**
	Alfalfa	Barley	Cover Crop	Grass Pasture	New Alfalfa	Small Grains	Potatoes	Vegetables	Wheat Fall/Spring	
1936	869.54	-	-	185.46	-	706.83	445.80	56.67	-	**2264.30**
1998	1218.14	-	-	12.47	-	2598.61	65.41	-	-	**3894.63**
2002	1532.85	-	-	-	-	2338.51	-	-	-	**3871.36**
2005	1755.21	-	-	7.61	384.48	1709.83	-	-	32.38	**3857.14**
2009	1948.99	-	-	44.00	149.01	1606.59	-	-	-	**3748.58**
2010	2223.40	-	-	55.76	-	1446.05	-	-	-	**3725.21**
2011	1760.13	1544.02	-	51.39	31.53	21.83	-	-	316.41	**3408.90**
2012	1478.55	961.22	-	117.26	483.68	694.49	-	-	-	**3735.20**
2013	1637.93	1036.81	-	39.63	765.42	183.87	-	-	-	**3663.66**
2014	1964.24	1338.72	-	45.78	240.82	129.92	-	-	-	**3719.47**
2015	2062.46	1235.70	-	175.58	205.92	53.30	-	-	-	**3732.96**
2016	2008.31	1538.81	-	21.14	142.28	-	-	-	-	**3710.54**
2017	1926.97	1446.92	-	25.28	173.86	191.39	-	66.16	-	**3830.58**
2019	1494.27	1370.71	58.15	20.22	444.38	436.03	-	-	-	**3823.76**

Terrace Main Canal

Figure 3 – Terrace Main Canal Ditch Service Area

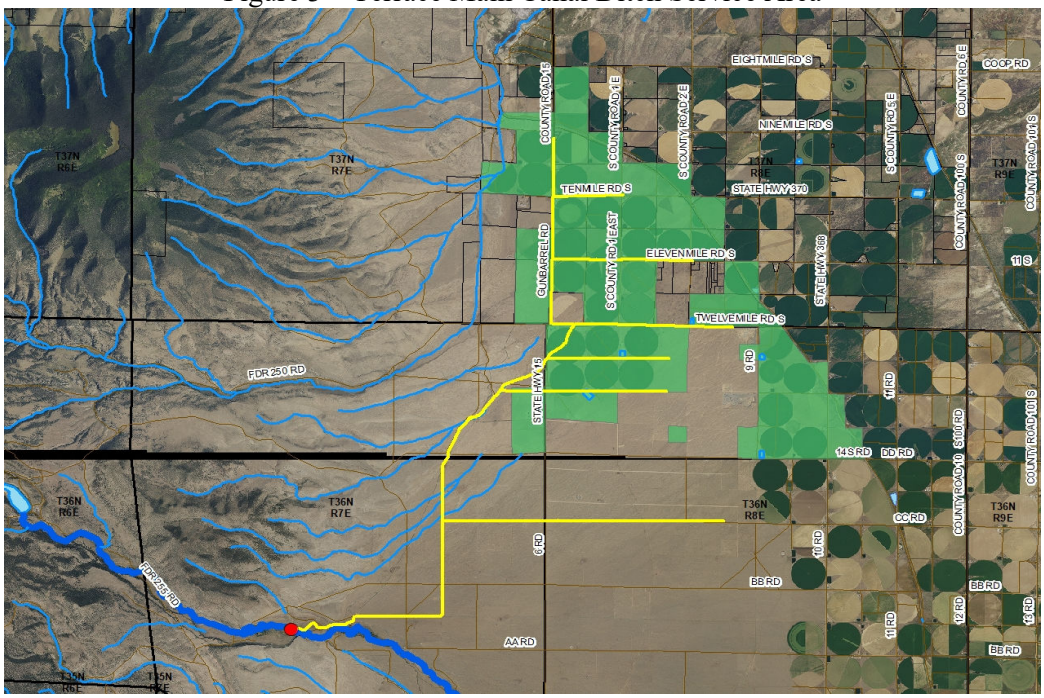


Table 2 – Irrigated Acres within Terrace Main Canal

Year	# of Acres under each Crop									**Total Acres**
	Alfalfa	Barley	Cover Crop	Grass Pasture	New Alfalfa	Small Grains	Potatoes	Vegetables	Wheat Fall/Spring	
1936	1484.17	-	-	6.82	-	1390.91	816.18	-	-	**3698.07**
1998	2421.96	-	-	245.76	290.38	2078.81	-	123.16	-	**5160.06**
2002	3713.76	-	-	8.36	-	1143.46	-	-	-	**4865.58**
2005	3862.85	-	62.70	13.35	362.33	822.11	-	-	-	**5123.35**
2009	3007.77	-	-	427.20	639.87	909.75	229.69	-	-	**5214.27**
2010	3713.21	-	-	500.21	76.44	826.41	138.16	-	-	**5254.43**
2011	3383.47	656.67	-	5.67	471.79	368.62	-	-	92.75	**4978.97**
2012	3186.29	344.27	109.68	324.06	624.31	534.21	-	-	-	**5122.82**
2013	3868.27	371.19	-	88.88	820.32	-	-	-	-	**5148.66**
2014	4605.74	113.09	-	150.08	70.61	184.34	-	-	-	**5123.86**
2015	4431.37	285.18	-	162.31	193.68	-	-	77.54	-	**5150.08**
2016	4367.83	244.82	-	218.09	447.39	-	-	-	-	**5278.14**
2017	4185.89	663.51	-	26.27	254.11	91.56	25.81	-	-	**5247.16**
2019	4345.52	228.36	-	77.67	448.52	192.07	-	-	-	**5292.13**

Capulin Ditch

Figure 4 – Capulin Ditch Service Area

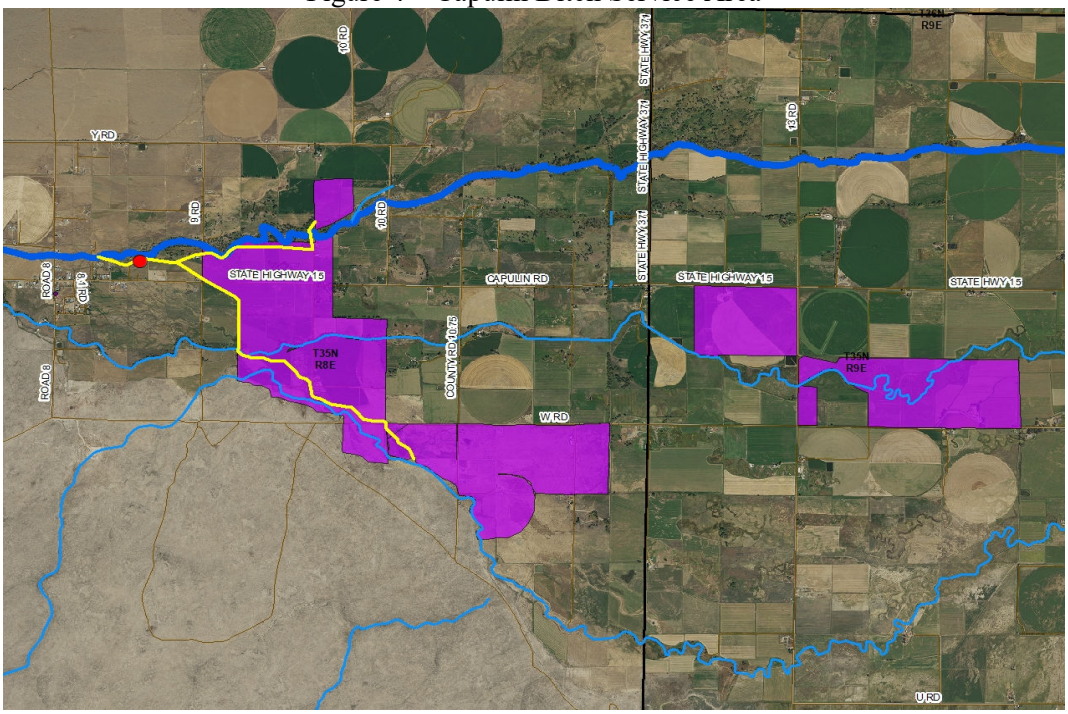


Table 3 – Irrigated Acres within Capulin Ditch

Year	# of Acres under each Crop							**Total Acres**
	Alfalfa	Barley	Grass Pasture	New Alfalfa	Small Grains	Potatoes	Vegetables	
1936	122.02	-	139.27	-	386.55	38.45	136.70	**823.00**
1998	506.55	-	143.35	13.56	108.04	-	-	**771.50**
2002	312.08	-	119.37	-	9.05	-	-	**440.51**
2005	511.27	-	89.41	-	18.69	-	-	**619.38**
2009	213.86	-	343.30	76.31	50.09	-	-	**683.56**
2010	464.24	-	113.45	-	89.06	-	-	**666.76**
2011	354.43	-	104.14	62.08	72.89	-	-	**593.54**
2012	195.59	-	215.68	24.89	171.12	-	-	**607.28**
2013	196.31	-	120.34	150.47	83.68	-	-	**550.79**
2014	251.36	36.87	169.39	99.70	56.42	-	-	**613.73**
2015	215.66	-	132.47	196.46	56.69	-	-	**601.28**
2016	400.36	15.66	80.13	107.73	-	-	-	**603.88**
2017	497.80	15.06	69.53	65.73	6.03	-	-	**654.15**
2019	477.46	-	110.82	26.42	51.94	-	-	**666.64**

Valdez Ditch

Figure 5 – Valdez Ditch Service Area

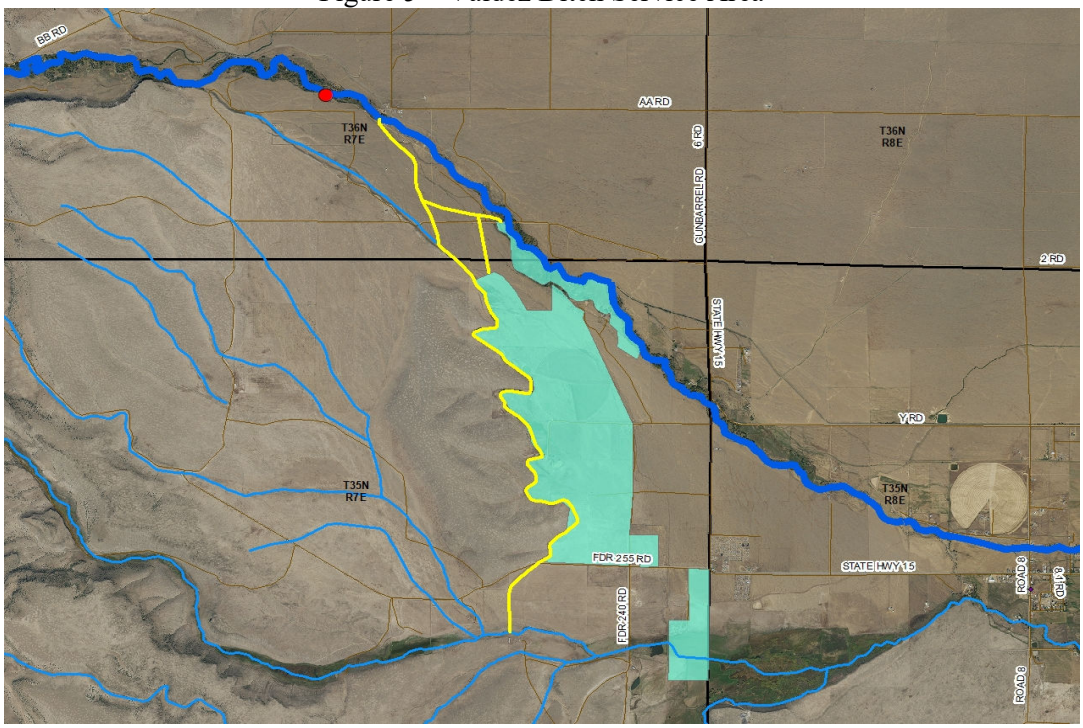


Table 4 – Irrigated Acres within Valdez Ditch

Year	# of Acres under each Crop					**Total Acres**
	Alfalfa	Grass Pasture	New Alfalfa	Small Grains	Vegetables	
1936	119.46	80.04	-	529.61	15.53	**744.64**
1998	108.57	420.90	-	-	-	**529.47**
2002	-	112.51	-	-	-	**112.51**
2005	90.31	18.30	-	-	-	**108.61**
2009	-	76.61	-	7.29	-	**83.89**
2010	10.31	48.00	-	-	-	**58.31**
2011	-	57.75	-	-	-	**57.75**
2012	10.03	44.78	-	-	-	**54.81**
2013	10.03	47.46	77.56	-	-	**135.05**
2014	10.03	115.78	-	-	-	**125.81**
2015	10.36	157.75	10.31	-	-	**178.41**
2016	20.07	117.75	123.26	-	-	**261.08**
2017	143.92	34.48	-	-	-	**178.40**
2019	20.22	38.93	123.26	-	-	**182.42**

3. Description of the Alternative Water Transfer Method

Please describe the type(s) of water transfers that will be examined/utilized (i.e., conceived transfer methods include, but are not limited to: 1) interruptible water supply agreements; 2) long-term agricultural land fallowing; 3) water banks; 4) reduced consumptive use through efficiency or cropping changes while maintaining historic return flows; and 5) purchase by end users with leaseback under defined conditions). In addition, please describe how the transferable consumptive use will be calculated and quantified, and how return flow patterns will be addressed/maintained.

The Alamosa River ATM will be a rotational temporary fallow program, which includes the four irrigation entities described above (Alamosa Creek Canal, Terrace Main Canal, Capulin Ditch, and the Valdez Ditch). The program will give producers within these ditch/canal service areas the option to fallow their irrigation land for compensation from the Subdistrict. The Subdistrict will then use the consumptive use from that irrigated area that was fallowed and use it as augmentation water to remedy injurious depletions caused by groundwater pumping from Subdistrict Wells. The Subdistrict would remedy injurious depletions with the augmentation water created in this program by either leaving the water in the river or by storing the water (under separate agreement) and releasing it to the river at a later date to meet the requirement of remedying injury in time, location, and amount.

As a part of the initial engineering, a ditch-wide consumptive use analysis will be completed which will produce an acre-foot per acre amount that can be credited to the subdistrict as augmentation water through this program. It is anticipated that the Lease/Fallow Tool developed by the Colorado Decision Support System (CDSS) will be used to calculate the consumptive use amount and returns flows for each ditch/canal service area listed above. It is also anticipated that as part of this program Subdistrict No. 6 staff and consultants will work closely with the Division Engineer for Water Division No. 3.

4. Program/Project Eligibility

Please describe how the proposed program/project meets each of the following eligibility requirements (please see Criteria and Guidelines for additional information regarding the alternative water transfer methods/strategies that qualify for funding). Note: If these requirements are addressed in other parts of the application you may simply reference the applicable section(s).

a) *A description of how, if implemented, the proposed program/project will protect property and water rights.*

This proposed ATM program will ensure the Subdistrict has the ability to acquire water in an amount that is sufficient to remedy the injurious depletions calculated to be occurring to senior surface water rights on the Alamosa River and therefore comply with the Division of Water Resources' Rules and Regulations and maintain and protect the agricultural economy by seeking to avoid permanent dry-up of irrigated lands. These injurious depletions are caused by groundwater withdrawals from wells in the Subdistrict. The Subdistrict will use water acquired under this program to remedy those injuries with water at the time, place, and amount which these injuries are occurring to those water rights on a daily basis. Under this program, the Subdistrict would provide compensation to those surface water rights owners that are willing to temporarily set aside land and allow the Subdistrict to utilize the consumptive

use of their water on a temporary basis to help meet the goals and objectives of the Subdistrict.

b) Identified group(s) of agricultural users that are or may be willing to transfer a portion of their water and identified entity(s), group(s) or area(s) where the transferred water could or would be put to the new use and a description of the new use.

This Program is being proposed on a ditch-wide basis for several ditch systems on the Alamosa River to allow any surface water rights owners on a particular ditch to participate in the program without the need to permanently retire lands and water rights. The ditches are those that divert water from the Alamosa River for irrigation and the surface water that is transferred under this program for the Subdistrict's use would be used to replace injurious depletions to senior water rights that divert from the Alamosa River.

c) The program/project must at a minimum conceptually describe the technical, institutional, and legal elements of the water transfer. Grant monies may be used to address one or more of these elements. If grant monies are not requested for all three elements, the grant applicant must describe how the applicant has or intends to address the elements, which are not included in the grant request, through other efforts.

This application is being made to request funding to assist the Subdistrict in determining the technical, institutional, and legal elements for this program.

d) If grant monies are proposed for use for legal assistance then the use of those funds shall be oriented toward advancing the knowledge of alternative agricultural water transfer methods and techniques; not for preparation of a specific water court case. The total requested funds for legal assistance shall not exceed 40 percent of the total grant request. In addition, grant monies proposed for use for legal assistance must be used to collaboratively address issues and concerns related to agricultural water transfer. Funds shall not be used to solely advance the cause of the project proponents.

Grant monies received would be used for the purpose of advancing the Subdistrict's knowledge as to the technical and legal elements of an alternative transfer method program and compliance with all other laws, rules, and regulations.

e) A minimum of a 10 percent cash match of total project cost (past expenditures and "in kind" can not be counted toward the 10 percent match).

The Subdistrict assesses an Annual Service and User Fee for the purpose of funding the acquisition of water or other replacement sources for the purpose of remedying injurious stream depletions to senior surface water rights on the Alamosa River. These funds can be used as a cash match to a grant that assists the Subdistrict in meeting its goals and objectives as described in their Plan of Water Management.

5. Program/Project Evaluation Criteria

The following grant evaluation criteria will be used by the CWCB to evaluate and make recommendations to fund, partially fund or not fund a grant application. The criteria are aimed at advancing alternative transfer methods from the literature and studies to actual on the ground projects/programs that provide reliable water supply and sustain key elements of the agricultural area from which the water is transferred. The applicant should fully address and explain in detail in the application how, and the extent to which, the proposed project/program meets each of the criteria. However, it should be noted that the project does not have to meet all of the criteria to be eligible to receive funding and the criteria below are not listed in any order of important or priority.

a. The proposed project/program builds upon the work of former alternative water transfer methods efforts and addresses key areas that have been identified. For more detailed information on this work, please refer to the draft report: *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update*, November 2012.
b. The proposed project addresses one or more key recommendation(s) in the report: *Alternative Agricultural Water Transfer Methods Grant Program Summary and Status Update*, November 2012.
c. Preference will be given to projects that provide additional matching resources in the form of cash, past expenditures and in-kind contributions that are in addition to the required 10% cash match.
d. The proposed project/program has the ability/potential to produce a reliable water supply that can be administered by the State of Colorado, Division of Water Resources.
e. The proposed project/program produces information that is transferable and transparent to other users and other areas of the state (i.e., would provide an example "template" or roadmap to others wishing to explore alternate transfer methods).
f. The proposed project/program addresses key water needs identified in SWSI 2010 or as identified in a basin's needs assessment.
g. The proposed project/program advances the preservation of high value agricultural lands. Value can be viewed as: the value of crops produced, the value the agriculture provides to the local community, and the value the agricultural area provides for open space and wildlife habitat.
h. The proposed project/program addresses water quality, or provides other environmental benefits to rivers, streams and wetlands.
i. The proposed project/program increases our understanding of and quantifies program/project costs. This could include: institutional, legal, technical costs, and third party impacts.
j. The proposed project/program does not adversely affect access to other sources of water (not subject to/participating in the program) where owners of these water rights may wish to pursue traditional transfer of their rights to other users.
k. The proposed project/program provides a perpetual water supply for the new and/or alternate use and preserves agricultural production and/or helps sustain the area's economy from which the transfer is occurring.
l. The quantity of water produced by the proposed project/program. Preference will be given to programs that can address larger water supply needs.

6. Statement of Work

A detailed statement of work has been prepared and enclosed as Exhibit A, see Exhibit A.

BUDGET

A detailed budget has been prepared and enclosed as Exhibit B, see Exhibit B.

SCHEDULE

As a part of the detailed budget a schedule has been prepared, see Exhibit B.

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 the public and help promote the development of alternative agricultural transfer methods.

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

Signature of Applicant: Amber Pacheco

Print Applicant's Name: Amber Pacheco

Project Title: Alamosa River ATM

Return this application to:

Mr. Craig Godbout
Colorado Water Conservation Board
Water Supply Planning Section
1313 Sherman St., Room 721
Denver, CO 80203
craig.godbout@state.co.us

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Last Update: December 17, 2019

Colorado Water Conservation Board	
Alternative Agricultural Water Transfer Methods Grant	
Exhibit A - Statement of Work	
Date:	**May 28, 2020**
Water Activity Name:	**Alamosa River ATM Project**
Grant Recipient:	**RGWCD – Subdistrict #6**
Funding Source:	**CWCB**

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 ATM funding will be used for.

The Alamosa/La Jara Subdistrict (Subdistrict No. 6), located in the southwestern portion of the San Luis Valley, will be required to remedy injurious depletions to the Alamosa River caused by groundwater withdrawals from wells that participate in the Subdistrict. One of the remedies will come from water produced from a rotational temporary fallow program for surface water rights on the Alamosa River.

The Alamosa River ATM will consist of four different ditch/canal systems:

- Alamosa Creek Canal
- Terrace Main Canal
- Capulin Ditch
- Valdez Ditch

A rotational temporary fallow program will be created so that producers under these ditch systems could fallow a portion (or all) of their irrigated acres for compensation from Subdistrict No. 6. Subdistrict No. 6 would then take the consumptive use from the fallowed irrigation lands and use it to replace the injurious depletions at time and place.

This scope of the initial funding request includes engineering work to develop a ditch-wide consumptive use analysis. RGWCD staff will develop program guidelines describing who will be eligible, how the accounting will take place for the program and when/how the producer participating will be compensated. Legal expenses will include investigation of ditch service areas (if discrepancy arrives), develop a contract for participating producers, and review program guidelines and assure the program complies with all necessary laws, rules, and regulations.

Objectives: (List the objectives of the project)

1. **Provide a source for augmentation water for Subdistrict No. 6 to remedy injurious depletions from groundwater withdrawals by Subdistrict Wells to the Alamosa River.**
2. **Provide agricultural producers an economical opportunity to continue their agricultural practices without a permanent buy-and-dry.**
3. **With the community in mind, provide alternative way to obtain necessary augmentation water for the Subdistrict that does not involve permanent buy and-dry.**

Tasks
Provide a detailed description of each task using the following format:
Task 1 – Site Visit to each Ditch/Canal Service Area
Description of Task:
Complete a visit to each ditch/canal service area to learn the lay of land and locate the ditch and diversion structures throughout the ditch service area. Preliminary engineering will be completed to understand physical constraints within the ditch system. The following ditch/canal service area will be visited: ➢ Alamosa Creek Canal ➢ Terrace Main Canal ➢ Capulin Ditch ➢ Valdez Ditch
Method/Procedure:
Physically tour each ditch/canal service area with producers under each ditch as described above.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A report will be produced at the end of the engineering analysis, which will describe the finding of the site visit and how the information was incorporated into the overall engineering analysis (see Task 7 below).
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The same report described above can be provided to CWCB.

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

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Tasks
Task 2 – Meet with Division 3 DWR Personnel
Description of Task:
Meet with Division 3 DWR personnel to discuss the ATM program and the use of the Lease Fallow Tool for engineering analysis.
Method/Procedure:
Meet with Division 3 DWR personnel as described above.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A report will be produced at the end of the engineering analysis (see Task 7 below).
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The same report described above can be provided to CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 3 – Determine Study Period for Analysis
Description of Task:
Determine appropriate study period for analysis. Ensure the study period determined is representative for historical consumptive use analysis.
Method/Procedure:
Coordination with attorneys and DWR as necessary to assist in developing the study period for the historical consumptive use analysis.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A report will be produced at the end of the engineering analysis (see Task 7 below).
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The same report described above can be provided to CWCB.

Tasks

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Tasks
Provide a detailed description of each task using the following format:
Task 4 – Review Historical Irrigated Acres
Description of Task:
• Obtain aerial photography for years that are readily available within the study period. Process photos for use in verification of historical irrigated acres and crop type as provided by CDSS. • Verify ditch/canal service area provided by CDSS is correct.
Method/Procedure:
• Use AutoCAD and/or GIS to process aerial photography. • Research ditch service area using deeds (if needed).
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A report will be produced at the end of the engineering analysis (see Task 7 below).
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The same report described above can be provided to CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 5 – Calculate ditch wide historical consumptive use analysis
Description of Task:

Tasks
Each of the following tasks will be completed for each ditch/canal service area described above: • Obtain ditch diversion records for the study period. • Determine crops for each year in the study period. • Research irrigation wells on each irrigated parcel within the ditch service area. • Determine type of use for each irrigated parcel (i.e. sprinkler or flood). • Determine IWR for each crop grown during the study. • Determine initial soil moisture contribution for the irrigated area included in the study. • Determine amount of return flow that must be left in ditch and/or recharged. • Based on the calculated Historical Consumptive Use above, convert to an ac.-ft./ac. And / Or ac.-ft./share, consumptive use value, for each irrigation entity, for the study period selected.
Method/Procedure:
Lease/Fallow Tool
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A report will be produced at the end of the engineering analysis (see Task 7 below).
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The same report described above can be provided to CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 6 – Develop Guidelines for the Alamosa ATM Program
Description of Task:
• RGWCD staff will develop program guidelines of who will be eligible, how the accounting will take place for the program and when/how the producer participating will be compensated. • Legal services will include investigation of ditch service areas (if discrepancy arrives), develop a contract for participating producers, and review program guidelines and compliance with all laws, rules, and regulations.
Method/Procedure:

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Tasks
Working with the Subdistrict Board of Managers (BOM) and the BOM's attorney, RGWCD staff will develop program guidelines that will be to operate the program.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A report will be produced at the end of the engineering analysis (see Task 7 below).
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The same report described above can be provided to CWCB.

Tasks
Provide a detailed description of each task using the following format:
Task 7 – Summary Report
Description of Task:
Compile information into a detailed report summarizing the findings of the ditch-wide Historical Consumptive Use analysis. The report will include all of the assumptions made and information used during the calculation process. Based on the calculated Historical Consumptive Use above, convert to an ac.-ft./ac. and/or ac.-ft./share, consumptive use value for Alamosa Creek Canal, Terrace Main Canal, Valdez Ditch, and Capulin Ditch.
Method/Procedure:
Davis Engineering Service, Inc. (engineer) will compile the information into a report and provide a draft to the District's attorney and RGWCD staff to review. Once the report has been reviewed and approved a copy can be supplied to the CWCB.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)
A report will be produced at the end of the engineering analysis.
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)
The same report described above can be provided to CWCB.

Budget and Schedule

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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.

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Alternative Agricultural Water Transfer Methods Grants

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

Date: May 28, 2020

Water Activity Name: Alamosa River ATM

Grantee Name: RGWCD - Subdistrict #6

Task No.[1]	Description	Start Date[2]	End Date	Matching Funds (cash & in-kind)[3]	ATM Funds	Total
1	Site Visit to each Ditch/Canal Service Area	NTP	NTP + 30 Days	$465	$4,184	$4,649
2	Meet with Division 3 DWR Personnel	NTP	NTP + 30 Days	$292	$2,628	$2,920
3	Determine Study Period for Analysis	NTP + 30 Days	NTP + 60 Days	$451	$4,057	$4,508
4	Review Historical Irrigated Acres	NTP + 30 Days	NTP + 90 Days	$987	$8,883	$9,870
5	Calculate ditch wide historical consumptive use analysis	NTP + 60 Days	NTP + 120 Days	$1,486	$13,374	$14,860
6	Develop Guidelines for the Alamosa ATM Program	NTP	NTP + 90 Days	$1,169	$10,523	$11,692
7	Summary Report	NTP + 120	NTP + 180	$893	$8,033	$8,925
			Total	$5,742	$51,682	$57,424

(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.

NTP = Notice to Proceed

• 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.

Alamosa River ATM_Cost Breakdown

Engineering Services		Task 1		Task 2		Task 3		Task 4		Task 5		Task 6		Task 7			
Employee/Item	Rate	Site Visit to each Dicth_Canal Service Area/Preliminary Engineering Hrs./Fee	Cost Estimate	Meet with Division 3 DWR Personnel Hrs./Fee	Cost Estimate	Determine Study Period / Coordination with Attorney Hrs./Fee	Cost Estimate	Quantify Acres / Obtain Aerials Hrs./Fee	Cost Estimate	Calculate HCU & Converting to per Share & per Acre Hrs./Fee	Cost Estimate	Develop Guidelines for the Alamosa ATM Program Hrs./Fee	Cost Estimate	Compile information into Report Format Hrs./Fee	Cost Estimate	Total Hours	Total Estimate
Engineer, Principal	$ 150.00	4	$ 600.00	2	$ 300.00	5	$ 750.00	10	$ 1,500.00		$ -		$ -		$ -	21.0	$ 3,150.00
Engineer, Design	$ 112.00	32	$ 3,584.00	10	$ 1,120.00	24	$ 2,688.00	60	$ 6,720.00	130	$ 14,560.00	16	$ 1,792.00	60	$ 6,720.00	332.0	$ 37,184.00
RGWCD Staff	$65.00	5	$ 325.00	5	$ 325.00	2	$ 130.00	2	$ 130.00	1	$ 65.00	80	$ 5,200.00	5	$ 325.00	100.0	$ 6,500.00
District Attorney	$ 235.00		$ -	5	$ 1,175.00	4	$ 940.00	2	$ 470.00	1	$ 235.00	20	$ 4,700.00	8	$ 1,880.00	40.0	$ 9,400.00
GPS Equipment	$ 44.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -	0.0	$ -
Mileage	$ 0.70	200	$ 140.00		$ -		$ -		$ -		$ -		$ -		$ -	200.0	$ 140.00
Fees Paid Others	1.05		$ -		$ -		$ -	$ 1,000.00	$ 1,050.00		$ -		$ -		$ -		$ 1,050.00
Task Totals			$ 4,649.00		$ 2,920.00		$ 4,508.00		$ 9,870.00		$ 14,860.00		$ 11,692.00		$ 8,925.00	693.0	**$ 57,424.00**