Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet July 20-21, 2016 Agenda Item 16(g)

Applicant & Fiscal Agent:	Animas Consolidated Ditch Company			
Water Activity Name:	Culvert Replacement Project			
Water Activity Purpose:	Agricultural			
County:	La Plata			
Drainage Basin:	Southwest			
Water Source:	Animas River & Hermosa Creek			
Amount Requested/Source of Funds:	\$34,354Southwest Basin Account\$34,354Total Grant Request			
Matching Funds:	Applicant & 3 rd Party Match (\$34,353: cash) = 50% of total project costs (\$68,707) (refer to <i>Funding Summary/Matching Funds</i> section)			

Staff Recommendation:

Staff recommends approval of up to \$34,354 from the Southwest Basin Account to help fund the project titled: Culvert Replacement Project.

Water Activity Summary: WSRA funds, if approved, will be expended to fund the replacement of approximately 84 linear feet of 48" elliptical pipe which is failing under current conditions. This effort consists of three components: surveying, engineering and construction (removal and replacement of existing corrugated metal pipe with a similarly sized concrete elliptical pipe). The existing pipe delivers approximately 30 cfs to approximately 1,000 acres of irrigated agriculture and other water users.

Discussion: This project meets the goals and objectives identified in the Southwest Basin Implementation Plan. This project is an extension of IPP 21A and is consistent with the Multi-Basin IPP addressing "Ditch Company Improvements and Efficiency Project".

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

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria: n/a

Funding Summary/Matching Funds:

Funding Source	Cash	In-kind	<u>Total</u>
Animas Consolidated Ditch Company	\$24,047	\$0	\$24,047
Adjacent Landowners	\$10,306	\$0	\$10,306
Subtotal Matching Funds	\$34,353	\$0	\$34,353
WSRA Southwest Basin Account	\$34,354	n/a	\$34,354
Total Project Costs	\$68,707	\$0	\$68,707

CWCB Project Manager: Craig Godbout

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

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

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

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

SOUTHWEST BASINS ROUNDTABLE Michael Preston, Chair c/o Dolores Water Conservancy District P.O. Box 1150 Cortez, Colorado 81321 970-565-7562

April 22, 2016

Mr. Craig Godbout Water Supply Management Section Colorado Water Conservation Board 1580 Logan Street, Suite 600 Denver, Colorado 80203

SUBJECT: Animas Consolidated Ditch Company Culvert Replacement Project, \$34,354 from Southwest Basin Account

Dear Mr. Godbout:

The Southwest Basin Roundtable approved funding of \$34,354 from the Basin Account for the Animas Consolidated Ditch Company Culvert Replacement Project. The application was considered in detail and approved at the April 13, 2016 meeting of the Southwest Basin Roundtable. There was a quorum of Roundtable members present.

The proposed project is an extension of IPP 21A in the Southwest BIP and consistent with the Multi-Basin IPP addressing "Ditch Company Improvement and Efficiency Projects." The culvert is a feature on a 12 mile ditch irrigating 3,000 acres of Animas Valley land. Deliveries have been impacted by gravel mining going back to early 20th century, and changes associated with increasing residential development in what was historically an agricultural valley. The Basin Fund request is being matched dollar for dollar by the applicant.

The completed Grant Application will be forwarded directly to you by the applicant. Please contact the applicant directly or me at 970-565-7562, <u>mpreston@frontier.net</u>, if you have questions or wish to discuss this application in more detail.

Sincerely,

Michael Preston Southwest Basin Roundtable Chair



COLORADO WATER CONSERVATION BOARD

WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: April 3, 2016



Animas Consolidated Ditch Company 48 inch Culvert Replacement Project

Name of Water Activity/Project

Animas Consolidated Ditch Company

Name of Applicant

Southwest Basin Roundtable

Amount from Statewide Account:

\$0

Amount from Basin Account(s):

Total WSRA Funds Requested:

\$34,354.00

\$34,354.00

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

FEIN:

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
Water Rights, Availability, and Sustainability	page 10
Related Studies	page 10
Signature Page	page 12

Required Exhibits

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

Appendices – Reference Material

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

Instructions

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

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

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

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf. In addition, the applicant should also refer to the http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf. In addition, the applicant should also refer to the https://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf. In addition, the applicant should also refer to the https://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf. In addition, the applicant should also refer to the <a href="https://cwcb.state.co.us/loansgrants/water-supple-state.co.us/loansgrants/water-supple

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

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

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

1.	Applicant Name(s):	Anima	Animas Consolidation Ditch Company				
	Mailing address:	P.O. Box 3777 Durango, Colorado 81302					
	FEIN #:						
	Primary Contact:	Ed Zin	k	Position/Title:	Board Member		
	Email:	edzink	@waterfallranch.com				
	Phone Numbers:	Cell:	970-749-4621	Office:	970-247-8758		
	Alternate Contact:	Carrie	Lile	Position/Title:	Engr. Consultant		
	Email:	carrie	durangowater.com				
	Phone Numbers:	Cell:	970-759-9842	Office:	970-259-5322		

Part I. - Description of the Applicant (Project Sponsor or Owner);

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.

Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.

Х

Private Incorporated – mutual ditch companies, homeowners associations, corporations.

Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.

Non-governmental organizations - broadly defined as any organization that is not part of the government.

3. Provide a brief description of your organization

The Animas Consolidated Ditch Company owns and operates the Animas Consolidated Ditch, which serves the west side of the Animas River Valley between Baker's Bridge and Durango. The ditch company was formed about 1900, and consolidated several ditches in the area into one. The Animas Consolidated Ditch Company has rights to nearly 91 cfs which provides irrigation and other water uses on roughly 3000 acres. There are 300 members along the 12 mile ditch.

This project supports the Southwest Basin Roundtable's Implementation Plan (BIP) "Goal B of Meeting Agricultural Needs". The specific goal is to "implement efficiency measures to maximize beneficial use and production". The project is to implement irrigation system improvements to improve water delivery and maximize beneficial uses. Along with being categorized as a goal of the BIP, this project meets goals within the Colorado Water Plan as well. According to Chapter 10's Critical Agricultural Actions table, this project specifically meets item #3 to "Provide grants, loans, and technical support to update and improve Colorado's aging agricultural infrastructure, especially where improvements provide multiple benefits". This project is the replacement of a culvert with an estimated age of at least 75 years.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

The Animas Consolidated Ditch Company will hire a surveyor to gather data and a water engineer to design the components to be replaced. Then there will be a contractor hired to replace the culvert and complete landscaping.

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.



The Applicant will be able to contract with the CWCB using the Standard Contract



The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

Not applicable

Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

	Nonconsumptive (Environmental or Recreational)
X	Agricultural
	Municipal/Industrial
	Needs Assessment
	Education
	Other Explain:

- 2. If you feel this project addresses multiple purposes please explain. Not applicable
- 3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)





Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

	New Storage Created (acre-feet)					
	New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)					
	Existing Storage Preserved or Enhanced (acre-feet)					
	Length of Stream Restored or Protected (linear feet)					
115	Length of Pipe/Canal Built or Improved (linear feet)					
	Efficiency Savings (acre-feet/year OR dollars/year – circle one)					
	Area of Restored or Preserved Habitat (acres)					
	Other Explain:					

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

Latitude:	37°	21.	.916′
-----------	-----	-----	-------

Longitude:	107°	51.22′	
Longitude.	107	JI•22	

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

An existing squash culvert, within the Animas Consolidated Ditch delivery system, is a corrugated metal pipe with a diameter of 4 feet. The squash culvert delivers 30 cubic feet per second of water to approximately 1,000 acres of irrigated land. This culvert is one of many within the delivery system. The 84 foot long squash culvert is failing; the bottom is being crushed upwards creating exposed, rough metal edges creating turbulent flow and trash traps. The project proposes replacing the existing culvert with a concrete culvert of similar diameter and length. The existing culvert is sandwiched between an old historic home and County Road 203. It is a difficult location and therefore requires significantly more resources for construction than a typical culvert replacement. Due to the close proximately of the road and public utilities within the road's right of way, preconstruction surveying and engineering design are necessary.

Part III. – Threshold and Evaluation Criteria

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

The project will provide Animas Consolidated Ditch Company with a replaced culvert allowing the water deliveries to continue as historically taken place. The Animas Consolidated Ditch Company will work with the affected landowners to negotiate the terms and payment(s) for the delivery system improvements. No water rights or property water rights will be jeopardized by the project.

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

The information requested is included in the letter from the Roundtable chair.

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

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

The information requested is included in the letter from the Roundtable chair.

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

The Animas Consolidated Ditch Company will provide 35% and the adjacent landowners will provide 15% of the funding. The Animas Consolidated Ditch Company's match will be a cash match of \$24,047 while the landowners will provide a cash match of \$10,306.

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

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

Not applicable

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three "tiers" or categories. Each "tier" is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

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

- a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).
- b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.
- c. The water activity helps implement projects and processes identified as helping meet Colorado's future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable's basin-wide water needs assessment.

Tier 2: Facilitating Water Activity Implementation

- d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).
- e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

- f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.
- g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
- i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
- j. The water activity is complimentary to or assists in the implementation of other CWCB programs.
- Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**. **Please attach** additional pages as necessary.

Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

The project will assist in maintaining existing senior irrigation water rights in the Animas River Valley and continue to provide safe delivery of the water supply. The Animas Consolidated Ditch diverts from the Animas River and Hermosa Creek and provides irrigation water to users with the Animas Valley. The project will be constructed in the off irrigation season to prevent affecting any user.

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

No specific studies have been done relating to the culvert replacement. The Animas Consolidated Ditch Company invited 3 separate engineers, 4 construction companies and NRCS to assess the problem. No specific permitting issues exist. The contracts will work La Plata County to ensure all applicable requirements are met during construction.

3. Statement of Work, Detailed Budget, and Project Schedule

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement**. All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

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

REPORTING AND FINAL DELIVERABLE

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

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

PAYMENT

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

Water Supply Reserve Account – Application Form

Revised October 2013

The above statements are true to the best of my knowledge:
Signature of Applicant: Schwin Azinh, Beard Secretory
Print Applicant's Name: Edwin A Zink
Project Title: Animas Consolidated Ditch Company Date: 48 inch culvert Peplescount
Date: 48 inch certert Replesement
Cof3/2016 Return an electronic version (hardcopy may also be submitted) of this application to:

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

Scope of Work

WATER ACTIVITY NAME – ACDC 48 inch Culvert Replacement Project

GRANT RECIPIENT – Animas Consolidated Ditch Company

FUNDING SOURCE – Basin Account Water Supply Reserve Account

INTRODUCTION AND BACKGROUND

The Animas Consolidated Ditch Company owns and operates the Animas Consolidated Ditch, which serves the west side of the Animas River Valley between Baker's Bride and Durango. The ditch company has been in operations for over 100 years and has a diversion water right of 91 cfs which provides irrigation and other water uses to roughly 3,000 acres.

An existing squash culvert, within the Animas Consolidated Ditch delivery system, is a corrugated metal pipe with a diameter of 4 feet. The squash culvert delivers 30 cubic feet per second of water to approximately 1,000 acres of irrigated land. This culvert is one of many within the delivery system. The 84 foot long squash culvert is failing; the bottom is being crushed upwards creating exposed, rough metal edges creating turbulent flow and trash traps. The project proposes replacing the existing culvert with a concrete culvert of similar diameter and length. The existing culvert is sandwiched between an old historic home and County Road 203. It is a difficult location and therefore requires significantly more resources for construction than a typical culvert replacement. Due to the close proximately of the home and road, pre-construction surveying and engineering design are necessary.

OBJECTIVES

The project objectives are to design, construct and replace the 84 foot long 48 inch squash culvert. The site will be surveyed and an engineered design will be produced. A construction company familiar with this type of installation work will be contracted. The construction will be overseen by the design engineer to ensure the project is completed as designed.

TASKS

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

TASK 1 – Surveying and Site Assessment

Description of Task

A cursory survey was conducted to determine the gradient of the existing squash culvert. This survey provided adequate data to NRCS to determine the required diameter (4 feet) to delivery 30 cubic feet per second. Due to the location of the culvert, close proximately to a home and county road, cross sectional surveying of the project area is necessary. The design engineer will conduct a site assessment and work with the surveyor to determine the locations of the necessary cross sections to design a replacement culvert.

Method/Procedure

Common engineering and surveying principles and practices will be employed to determine the locations of the cross sections. All points will be established on the Colorado State Plane Grid system South Zone 503, NAD 1983, NAVD 1988.

Deliverable

The deliverable will be a site layout of cross section locations with latitude and longitude values for applicable points.

TASK 2 – Culvert Design

Description of Task

The second task will be for a professional engineer to design the replacement culvert. The design engineer will utilized the gradient survey data, cross section survey data, preliminary specifications generated by NRCS and any other applicable information.

Method/Procedure

The design engineer will employ common engineering principles and practices to design the new squash culvert. The design will be reviewed and approved by the Animas Consolidated Ditch Company representatives.

Deliverable

The major deliverable will be an engineered design to install a new squash culvert along with a construction packet to be used by the contractors.

TASK 3 – Construction

Description of Task

The third task will be for construction of the new culvert. This work will at a minimum including: excavation of the site, plugging of existing culvert, installation of the new culvert, repair of ditch before and after the culvert to create smooth transitions, and landscaping of the distributed area.

Method/Procedure

The contractors will employ all required measures of safety, applicable county codes, and all other requirements during their period of work. The work is scheduled to begin after the 2016 irrigation season.

Deliverable

The major deliverable will be the installation of a new squash culvert.

REPORTING AND FINAL DELIVERABLE

Reporting

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

Final Deliverable

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

Animas Consolidated Ditch Company 48 inch Culvert Replacement Project

Attachment to Scope of Work

				WSRA Grant			
Task	Description	Total Cost	Technical	Construction	Other Direct Costs	Total WSRA Grant	Total Matching
	1 Surveying and Site Assessment	\$1,500	\$1,500	\$0	\$0	\$750	\$750
	2 Engineered Design	\$4,980	\$4,980	\$0	\$0	\$2,490	\$2,490
	3 Construction	\$62,227	\$12,445	\$49,782	\$5,000	\$31,114	\$31,114
	Subtotals	\$68,707	\$18,925	\$49,782	\$5,000	\$34,354	\$34,354
	Total						\$68,707

		Technical					
		Principal Eng	ineer Services	Surveyor Profe	ssional Sevices	Construction Services	
	Labor Distribution	\$120	Subtotal	\$100	Subtotal	Subtotal	Subtotal
Task 1	Surveying and Site Assessment	5	\$600	15	\$1,500	\$0	\$2,100
Task 2	Engineered Design	27	\$3,240	0	\$0	\$0	\$3,240
Task 3	Construction	9.5	\$1,140	0	\$0	\$62,227	\$63,367
		Total	\$4,980	Total	\$1,500	Total	\$68,707

Total \$68,707

* The allocation of costs between each component may change depending upon the actual effort for each component.

* Billing rates will remain fixed or decreased.

* Contractors bid as one job not by individual tasks.

TASK COMPLETION SCHEDULE

Tentative Task Completion Schedule	Start Date	Completion Date
Task 1 - Surveying and Site Assesment	P.O. Issued Date	Fall of 2016
Task 2 - Engineering Design	P.O. Issued Date	Fall of 2016
Task 3 - Construction	Fall of 2016	May-2017
Final Report		May-2017

Attachment to Scope of Work

Animas Consolidated Ditch Company 48 inch Culvert Replacement Project

			WSRA Grant				
Task	Description	Total Cost	Technical	Construction	Other Direct Costs	Total WSRA Grant	Total Matching
1	Surveying and Site Assessment	\$1,500	\$1,500	\$0	\$0	\$750	\$750
2	Engineered Design	\$4,980	\$4,980	\$0	\$0	\$2,490	\$2,490
	Construction	\$62,227	\$12,445	\$49,782	\$5,000	\$31,114	\$31,114
	Subtotals	\$68,707	\$18,925	\$49,782	\$5,000	\$34,354	\$34,354
	Total						\$68,707

		Technical					
		Principal Engineer Services		Surveyor Professional Sevices		Construction Services	
Labor Distribution		\$120	Subtotal	\$100	Subtotal	Subtotal	Subtotal
Task 1	Surveying and Site Assessment	5	\$600	15	\$1,500	\$0	\$2,100
Task 2	Engineered Design	27	\$3,240	0	\$0	\$0	\$3,240
Task 3	Construction	9.5	\$1,140	0	\$0	\$62,227	\$63,367
		Total	\$4,980	Total	\$1,500	Total	\$68,707

Total \$68,707

* The allocation of costs between each component may change depending upon the actual effort for each component.

* Billing rates will remain fixed or decreased.

* Contractors bid as one job not by individual tasks.

TASK COMPLETION SCHEDULE

Tentative Task Completion Schedule	Start Date	Completion Date
Task 1 - Surveying and Site Assesment	P.O. Issued Date	Fall of 2016
Task 2 - Engineering Design	P.O. Issued Date	Fall of 2016
Task 3 - Construction	Fall of 2016	May-2017
Final Report		May-2017

4/3/2016

