Project: **Dalton Ditch Water Conservation Project**

Proposed by: Circleville Irrigation Company, PO Box 304, Circleville, Utah 84723

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Technical Proposal

1. Executive Summary

Circleville Irrigation Company is in Circleville, Utah in Piute County. Circleville Irrigation Company (Circleville) is a nonprofit group made of landowners who own and irrigate approximately 7,000 acres of land and who divert water from the Sevier River; they are a Category B applicant.
Currently, Dalton Ditch, an earthen irrigation supply canal, diverts up to 20 cubic feet/second (cfs) for irrigation from the Sevier River, which runs dry before its mouth. The Dalton Ditch provides irrigation water for approximately 1000 acres through an irrigation water right. The 1000 acres is comprised of ranches (pasture, grass hay) and hay farms (alfalfa).

Circleville Irrigation Company is proposing to install approximately 2,700 feet of 30-inch ADS pipe in Dalton Ditch to conserve and convey water. The project cost is $204,082. The funding requested is $100,00 with the remaining $104,082 being provided by the Circleville Irrigation Company.

2. Project Location

The Dalton Ditch Water Conservation Project is located on the eastern edge of the town of Circleville (Piute County), Utah. The proposed project is to pipe a 2700-foot length of Dalton Ditch which diverts water from the Sevier River (HUC 1603000106). The latitude and longitude for the project location are: 38º10'06.64" N, 112º16'05.55" W.

3. Project Description

This is the 3rd phase of a project, phase 1 was previously funded in partnership with a Bureau of Reclamation grant in 2021, stage 2 in 2022 was funded through our local Water Conservancy Board. The proposed project is to pipe a 2700-foot length of Dalton Ditch, an earthen ditch. The proposal is to use a 30-inch Advanced Drainage Systems (ADS) pipe laid in the existing ditch banks. The ADS pipe is made with a white, high density polyethylene layer around a black polyethylene core to form a lightweight pipe with excellent beam stiffness.

The ditch will need to be cleaned out and deepened in places prior to laying the pipe in the ditch. Additionally, in some areas the ditch will need to be straightened to accommodate the pipe. An excavator, front-end loader and dump trucks will be used to clean out, deepen and straighten the ditch. The ditch may also need to be partial elevated or lowered to accommodate flow based on current elevations and engineering design. After the pipe is placed in the ditch, it will be covered with the excavated materials except at diversions. There are four small diversions on this segment of ditch. At each diversion, a concrete headwall will be constructed, and a 10-foot section of pipe will be left exposed or uncovered.

The project is estimated to take approximately 8 weeks to complete and is estimated to be completed by March 2025.

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4. Evaluation Criteria

Evaluation Criterion A-Project Benefits (35 points)

- *Describe the expected benefits and outcomes of implementing the proposed project.*
  - *What are the benefits to the applicant's water supply delivery system?*
    - The Sevier River has many diversions and runs dry prior to its mouth. By piping the canal, there will be no loss of water through seepage and evaporation. As a result, this diversion can be closely managed to match demand, conserving additional water for other irrigators and returning water back to the Sevier River just before the Kingston Diversion.

  - *If other benefits are expected, explain those as well. Consider the following:*
    - *The extent to which the proposed project improves overall water supply and reliability.*
      - The project is needed to conserve water in the over-allocated Sevier River, particularly downstream in intermittent Lake Sevier. By conserving water, it allows more water to stay in the Sevier River to service other irrigation diversions. This provides more reliable water for all irrigators in the Sevier River Watershed.
      - The project is located in the upper Sevier River watershed. This allows for the conserved water to remain instream for a longer distance providing more benefits to habitat, producers, and other users. If, instead, the instream water was provided near the mouth of the Sevier River, it would only be in channel for a short reach providing less benefits than the proposed project.

  - *The expected geographic scope of benefits from the proposed project (e.g. local, subbasin, basin).*
      - As the project conserves water and reduces diversions from the Sevier River, the Sevier River watershed benefits from the presence of additional water instream. The environment will benefit through increased in-stream flow which will provide for improved aquatic and fish habitat, as well as enhanced riparian areas for habitat use by waterfowl and songbirds. Additionally, Lake Sevier, located at the mouth of the Sevier River downstream of the project, will benefit from a decrease in streamflow diversion from the Sevier River. The shallow lake is intermittent, primarily dry due to irrigation diversions.
  - *Extent to which the proposed project will increase collaboration and information sharing among water managers in the region.*
      - Working together, irrigators can conserve more water and use the limited water resource more efficiently. Information can be shared with other

water managers about the success of limiting diversions through use of water meters.

- *Any anticipated positive impacts/benefits to local sectors and economies (e.g. agricultural, environment, recreation, and tourism).*
  - Leaving more water instream, benefits other agricultural users, the environment including aquatic and riparian habitats, recreation along the river corridor, and opportunities for tourism associated with the Sevier River.
- *Extent of which project will complement work done in coordination with NRCS in that area (e.g. with direct connection to the district's water supply). Describe any on-farm efficiency work that is currently being completed or is anticipated to be completed in the future using NRCS assistance through EQIP or other programs.*
  - Of the 7000 acres within the Circleville Irrigation Company, over 2000 acres have been converted to sprinkler irrigation from wildland flood systems. Most of these conversions have occurred in partnership with NRCS through the EQIP funds. The irrigation company is working with landowners to consider conversion to sprinkler irrigation in the next 3 years.

Evaluation Criterion B-Planning Efforts Supporting the Project (35 points)

- *Describe how your project is supported by an existing planning effort.*
  - *Does the proposed project implement a goal or address a need or a problem identified in the existing planning effort.*
    - Circleville Irrigation Company has been striving to make their Irrigation Company more efficient and conserve water within the distribution area for the past 20 years. To this end the Irrigation Company has identified several actions which will conserve water and improve irrigation efficiency (see attached conservation plan for the Irrigation Company). These actions include converting wildland flood to sprinkler irrigation, and piping the entire length of the Dalton Ditch, Willey Ditch, West Canal and the Kingston Canal. Through the implementation of all of these projects, the Irrigation Company estimates the conservation of 75% of its current diversion.
  - *Explained how the proposed project has been determined as a priority in the existing planning efforts, as opposed to other potential project/measures.*
    - The proposed project is one of the many projects identified by Circleville Irrigation Company to conserve water and improve irrigation efficiency. The Irrigation Company identified these three projects as providing the most conservation for the cost investment. Also, these four projects are expected to be reasonable maintenance for long-term operation of the irrigation system.

Evaluation Criterion C-Project Implementation (10 points)

- *Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows stages and the duration of the proposed work including major tasks, milestones and dates.*
    - The proposed project will be implemented in two phases, as the environmental compliance and cultural resource survey was completed on April 1, 2021. The first phase will begin on November 1, 2024, when the canal is , with the installation of the first stainless steel headgate. The second phase will begin at the end of the headgate installation (approximately November 15, 2024) and will consist of installing and covering of the pipe and 2 additional headgates.

Project Milestones are listed in the following table with completion dates.

Milestone	Start Date	Completion Date
Environmental Compliance (CE documentation)	April 2021	August 2021
Cultural Resource Survey	May 2021	July 2021
Stainless Steel Headgate installation	November 2024	November 2024
Pipe Installation	November 2024	November 2024
On-going monitoring and maintenance (as needed)	November 2024	November 2032

- *Describe any permits that shall be required, along with the process for obtaining such permits*.
    - The proposed project is not expected to require any permits. A Clean Water Act Section 404 (removal-fill) permit from the Army Corps of Engineers and Section 401 (clean water) certification are not anticipated at this time.
- *Identify and describe any engineering or design work performed specifically in support of the proposed project.*
    - Design work has been completed by the Circleville Irrigation Company. Elevational engineering surveys are still needed but will be conducted should the grant be awarded.
- *Describe any new policies or administrative actions are required to implement the project.*
    - No new policies or administrative actions are required to implement the proposed project.
- *Describe how the environmental compliance estimate was developed. Have the compliance costs been discussed with the local Reclamation office.*

- Utah Department of Agriculture was consulted regarding the extent of the environmental compliance needed.

Evaluation Criterion D-Nexus to Reclamation (10 points)

- *Is the proposed project connected to a Reclamation project or activity?*
  - The proposed project is not connected to a Reclamation project or activity.
- *Will the project benefit any tribe(s)?*
  - The proposed project will not benefit any tribes.

Project Budget

The total project costs are $204,082 with $100,000 of this being requested through the WaterSMART Grants: Small-Scale Water Efficiency Project grant program. The remaining $104,082 will be provided by the Circleville Irrigation Company (see attached letter).

None of the project expenses were incurred prior to July 1, 2024. Project costs for environmental compliance (CE documentation) cultural resource survey are not expected as they were completed on phase 1 in 2021, for the entire ditch system.

The Circleville Irrigation Company plans to provide additional funds to implement this project. The Irrigation Company will provide in kind labor and the difference in the cost of materials to install the pipe and concrete headwalls. The requested funding will purchase supplies (ADS pipe). The Circleville Irrigation Company has already committed this cost share amount.

The Irrigation Company has committed to providing in-kind labor to install the ADS pipe and concrete headwalls. In-kind labor will include heavy equipment, heavy equipment operation, manual labor, and surveying. Additionally, the Irrigation Company will provide for the administrative costs associated with the project ($5,752, which is 2.9% of the total project costs).

Table 1

Source	Amount
Costs to be reimbursed with the requested Federal funding	$ 100,000
Costs to be paid by the applicant	$ 104,082
Value of third-party contributions	$ 0
TOTAL PROJECT COSTS	$204,082

Table 2

BUDGET ITEM DESCRIPTION	COMPUTATION		QUANTITY TYPE	TOTAL COST
	$/Unit	Quantity		
Salaries and Wages				
Heavy Equip Operator	$65.00	350	hour	$22,750
Manual Labor	$45.00	250	hours	$11,250
Survey/Design	$95.00	80	hours	$7,600
Fringe Benefits				
N/A				$0
Travel				
N/A				$0
Equipment				
Excavator	$75.00	250	hour	$18,750
Dump Truck	$65.00	50	hour	$3,250
Frontend Loader	$72.00	50	hour	$3,600
Mobilization Fee	$210.00	3	Per equipment	$630
Supplies and Equipment				
30” ADS Pipe	$40/ft	2700	Pipe	$108,000
Stainless Gates	$5,000	3		$15,000
Forms, concrete and incidental fittings	$5,000	1	Forms and incidental fittings	$7,500
Contractual/Construction				
Other				
N/A				$0
TOTAL DIRECT COSTS				$198,330
Indirect Costs				
Administrative Costs	2.90%	$198,330		$5,752
TOTAL ESTIMATED PROJECT COSTS				$204,082

Budget Narrative

Salaries and Wages
In-kind wages were calculated for heavy equipment operators and manual laborers. The in-kind rates are average wage rates for the Circleville, Utah area.

Fringe Benefits
The Fringe Benefits line item is not applicable as the salaries are based on in-kind hourly rates and do not have associated fringe benefits.

Travel
The Travel line item is not applicable to this project, as this project does not require any travel.

Equipment
Heavy equipment for the project will include excavators, front end loaders and dump trucks.

Materials and Supplies
The materials and supplies for the project include concrete, rebar, metal grating, and ADS pipe. Additional incidental supplies, such as wood forms and trowels, will also be purchased. The 30inch ADS pipe costs $40/foot for a distance of 2700 feet for a total of $108,000. The stainless gates are $5000/gates for a total of $15000.

Contractual
There are no Contractual costs aside from the Environmental and Regulatory Compliance Costs.

Third-Party In-Kind Contributions
This project does not include third-party in-kind contributions.

Environmental and Regulatory Compliance Costs
Utah Department of Agriculture personal will provide compliance with the National Environmental Protection Act
(NEPA) through documentation for the Categorical Exclusion (CE) and compliance with the National Historic Preservation Act (NHPA) through a cultural resource survey, documentation of the potentially historic canal and a cultural resource survey report. A Clean Water Act Section 404 (removal-fill) permit from the Army Corps of Engineers and Section 401 (clean water) certification are not anticipated at this time.

Other Expenses
Aside from the Bureau of Reclamation environmental compliance review, there are no budget line items in the Other Expenses category.

Indirect Costs
Circleville Irrigation Company will provide for administrative costs, including but not limited to project management, expense tracking, and project reporting. The Irrigation Company expects the value of the indirect costs to be 2.9% of the direct costs (2.9% of $198,330), which totals $5,752.

Environmental and Cultural Resources Compliance

Utah Department of Agriculture will provide compliance with the National Environmental Protection Act (NEPA) through documentation for the Categorical Exclusion (CE) and compliance with the National Historic Preservation Act (NHPA) through a cultural resource survey, documentation of the potentially historic canal and a cultural resource survey report. Additionally, Utah Department of Agriculture will provide compliance with Section 7 of the Endangered Species Act (ESA) and determine the presence of a threatened or endangered species and potential effects of the proposed project or designated critical habitat.

Required Permits and Approvals

A Clean Water Act Section 404 (removal-fill) permit from the Army Corps of Engineers and Section 401 (clean water) certification are not anticipated at this time. No additional permits are anticipated.

Official Resolution

Please find the attached Official Resolution from the Circleville Irrigation Company.

Unique Entity Identifier and System for Award Management

Circleville Irrigation District's unique entity identifier (or DUNS number) is 117910782. The System for Award Management (SAM) cage code is 8VVK3, which expires on 10/29/2024.

Circlevlle Irrigation Company

PO Box 304

Circleville, Ut. 84723

July 5th, 2024

Bureau of Reclamation

WaterSMART Grant

To Whom it May Concern

The board of directors for the Circleville irrigation District has reviewed and supports the application for the WaterSMART Grants: Small-Scale Water Efficiency Projects - Funding Opportunity R24AS0059. The board designates Mckay Morgan as Project Manager. Mckay has the proper authority to sign on behalf of the company. Circleville Irrigation Company has the ability to provide funds for equipment and operation, plus in-kind labor and other fees totaling in the amount of $104,082. The board will work with Bureau of Reclamation to meet grant deadlines. We appreciate the opportunity to apply for this grant and work on projects to conserve water in the Sevier River Watershed.

Deven Gass

President of Circleville Irrigation