



**Colorado Water Conservation Board**

**Water Supply Reserve Fund - Statewide & Basin**

**Water Project Summary**

Name of Applicant	Dixon Canyon Ditch and Reservoir Company	
Name of Water Project		
Basin Account Request Subtotal		\$15,000.00
Statewide Request Amount		\$97,414.00
Statewide Project Category		Aging Infrastructure
Applicant Cash Match		\$37,471.00
Applicant In-Kind Match		\$0.00
Basin Requests		
Sources of Funding		

**Grant Details**

Statewide Project Category Justification

The Dixon construction renovation improvements directly support the goal of rehabilitating and repairing aged delivery and conveyance infrastructure - The repairs improve a portion of the Dixon system that is over 70 years old and badly in need of repair.

**Applicant & Grantee Information**

Name of Grantee: Dixon Canyon Ditch and Reservoir Company  
Mailing Address: 413 South Bryan Avenue Fort Collins CO 80521  
FEIN: 840,964,063

Organization Contact: Paul Rupp  
Position/Title: Vice President  
Phone: 970-689-8250  
Email: horsetoothvines@outlook.com

Organization Contact - Alternate: Isaac Carroll  
Position/Title: President  
Phone: 970-217-4137  
Email: icarroll@fcgov.com

Grant Management Contact: Paul Rupp  
Position/Title: Vice President  
Phone: 970-689-8250  
Email: horsetoothvines@outlook.com

Grant Management Contact - Alternate: Isaac Carroll  
Position/Title: President  
Phone: 970-217-4137  
Email: icarroll@fcgov.com

**Description of Grantee/Applicant**

No description provided

### Location of Water Project

Latitude 0.000000  
Longitude 0.000000  
Lat Long Flag  
Water Source  
Basins  
Counties  
Districts

### Water Project Overview

Major Water Use Type  
Type of Water Project  
Scheduled Start Date - Design 4/30/2024  
Scheduled Start Date - Construction 4/30/2024  
Description

### Measurable Results

0 New Storage Created (acre-feet)  
0 New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive  
0 Existing Storage Preserved or Enhanced (acre-feet)  
0 New Storage Created (acre-feet)  
0 Length of Stream Restored or Protected (linear feet)  
0.00 Length of Pipe, Canal Built or Improved (linear feet)  
\$0 Efficiency Savings (dollars/year)  
0 Efficiency Savings (acre-feet/year)  
0 Area of Restored or Preserved Habitat (acres)  
0 Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)  
0 Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning  
0 Number of Coloradans Impacted by Engagement Activity  
Other  
No additional measurable results provided



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<b>Colorado Water Conservation Board</b>	
<b>Water Supply Reserve Fund</b>	
<b><u>Exhibit A - Statement of Work</u></b>	
<b>Date:</b>	<b>25 February 2024</b>
<b>Water Activity Name:</b>	<b>Dixon Irrigation Supply Improvements Project</b>
<b>Grant Recipient:</b>	<b>Dixon Canon Ditch and Reservoir Company</b>
<b>Funding Source:</b>	<b>Water Supply Reserve Fund – Statewide &amp; Basin</b>
<b>Water Activity Overview:</b>	
<p>The existing Dixon Canon Ditch and Reservoir Company (DCDR Co) water delivery system infrastructure from the dam headgate through cleanouts 0, inoperable flume, cleanout 1, and cleanout 2 is over 70 years old (approximately 350 feet of open pond, flume, and piping). It has serious flaws relating to efficiency of delivery operations, human safety and environmental risk, and water conservation.</p> <p>The purpose of this project is to upgrade that specific section of the current delivery system through renovation and removal of the older infrastructure, and replacing the aging infrastructure with an improved headgate flow control, measurement and transmission system, new covered cleanouts, and all new enclosed piping. This project when completed will result in the following long term (greater than 20 years) improvements:</p> <ul style="list-style-type: none"> <li>- Major improvement in water conservation and system flow reliability</li> <li>- Reduced environmental and community risk due to flood or spillage</li> <li>- Elimination of current human and community safety/liability issues</li> <li>- Reduction in recurring annual repair and maintenance costs due to system age and condition</li> <li>- Major seasonal manpower/labor operational cost reduction</li> <li>- Overall improved oversight and conservation of our high value water resources</li> </ul>	
<b>Objectives:</b> (List the objectives of the project. (PLEASE DEFINE ACRONYMS)).	



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This project is guided by the following objectives:

- Complete the design contract and conduct preliminary design tasking
- Complete the final engineering design
- Complete the construction contracting
- Complete the construction project

Tasks
<b><u>Task 1 - PRE-DESIGN</u></b>
Description of Task:
<p><b>Task 1: Pre-Design</b></p> <p><b>a. Longitudinal Survey</b> A land survey of the irrigation pipeline and cleanouts may be necessary for the engineering design. The irrigation delivery system was surveyed in 2015 by the NRCS. However, depending on the accuracy of the 2015 survey, a high-precision survey may be necessary.</p> <p><b>b. NRCS Assessment</b> NRCE will review the assessment and analysis conducted by the NRCS in 2015.</p> <p><b>c. Permitting</b> Most construction projects require the owner to assess the probable environmental and cultural resources impacts of a construction project. Dixon will be responsible for any city or county permitting requirements.</p>
Method/Procedure:



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**Tasks**

**a. Longitudinal Survey**

A land survey of the irrigation pipeline and cleanouts may be necessary for the engineering design. The irrigation delivery system was surveyed in 2015 by the NRCS. However, depending on the accuracy of the 2015 survey, a high-precision survey may be necessary. Due to the tight tolerances required for the project, a certain level of survey accuracy is necessary. NRCE will work with the NRCS to determine the survey's accuracy level. NRCE will discuss the survey accuracy with Dixon and determine if an additional survey is required. If required, the survey will include the pipes, cleanouts, and siphon locations. In addition, the pipe inverts and top of cleanouts will be located with a high-precision Trimble GEO 7 Series GPS unit or equivalent. The current scope of services does not include an additional survey.

**b. NRCS Assessment**

NRCE will review the assessment and analysis conducted by the NRCS in 2015. NRCE will confirm the results of the NRCS analysis by developing a hydraulic model of the irrigation system. The model will consider the pond elevation, pipe inverts, and cleanout heights. NRCE will confirm that installing cleanout 0 and raising the heights of cleanouts 1 and 2 by the heights recommended by NRCS will allow Dixon to convey the desired 2.6 cfs to water users.

**c. Permitting**

Most construction projects require the owner to assess the probable environmental and cultural resources impacts of a construction project. Applicable Federal environmental laws that could apply to this Project include National Environmental Policy Act (NEPA), Endangered Species Act (ESA), National Historic Preservation Act (NHPA) and Clean Water Act (CWA). NRCE will work with the US Army Corps of Engineers, US Fish and Wildlife Service, Environmental Protection Agency, and the State Historic Preservation Offices as required to complete the necessary environmental permitting and cultural resources for the project. Dixon will be responsible for any city or county permitting requirements.

Grantee Deliverable: (Describe the deliverable the grantee expects from this task)

- Survey Accuracy and NRCS Analysis confirmed and applicable Permits acquired.

CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)

- Applicable Permits acquired and copies forwarded to CWCB, any grant requirements by CWCB will be provided.

**Tasks**

**Task 2 - ENGINEERING DESIGN**



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Tasks
<p>Description of Task:</p> <p><b>Task 2: Engineering Design</b></p> <p><b>a. Preliminary Design</b> The preliminary design process is a way of exploring initial ideas for the design of the Project. This process may include project size, design criteria, preliminary sizing of infrastructure components, and preliminary cost estimation. If necessary, NRCE will provide Dixon with different alternatives for modifying the existing headgate or installing a new headgate between cleanouts 0 and 1.</p> <p><b>b. 60% and Final Engineering Design</b></p> <p>NRCE will use the information gathered in Task 1 to complete a 60% and final design. The Project will involve the redesign of a headgate to divert water from Dixon Ditch to the irrigation delivery system or installing a headgate between cleanouts 0 and 1.</p>
<p>Method/Procedure:</p> <p><b>Task 2: Engineering Design</b></p> <p><b>a. Preliminary Design</b></p> <p>The preliminary design process is a way of exploring initial ideas for the design of the Project. This process may include project size, design criteria, preliminary sizing of infrastructure components, and preliminary cost estimation. If necessary, NRCE will provide Dixon with different alternatives for modifying the existing headgate or installing a new headgate between cleanouts 0 and 1. NRCE will provide conceptual drawings of the refurbished cleanout structures, pipeline layout, and flow meter during this design phase. In addition, NRCE will provide estimated costs to construct the Project. NRCE will consider Dixon's desire to remotely control and monitor the flow. The preliminary design will convey ideas to Dixon but will not be sufficiently detailed to construct the Project. The more detailed final design will be produced once NRCE has received comments from Dixon and other stakeholders. As discussed at the site visit, NRCE has concerns about backing water up into the pipe located in the Dixon Reservoir embankment. The Colorado Dam Safety Branch (DSB) will need to approve the preliminary design before NRCE does the final design. If the DSB does not approve the NRCS preliminary design, a change order would be necessary, so additional funds are available for NRCE to prepare an alternative design. NRCE is also concerned about the increased difficulty of utilizing the cleanouts for maintenance when they are raised 3 to 4 feet off the ground.</p> <p><b>b. 60% and Final Engineering Design</b></p> <p>NRCE will use the information gathered in Task 1 to complete a 60% and final design. The Project will involve the redesign of a headgate to divert water from Dixon Ditch to the irrigation delivery system or installing a headgate between cleanouts 0 and 1. In addition, the design will involve the installation of cleanout 0 and rehabilitation of cleanouts 1 and 2. The rehabilitation will involve raising the heights of cleanouts 1 and 2 to increase the system's hydraulic grade line (HGL) to accommodate the desired 2.6 cfs.</p>



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Tasks
<p>Design specifications will be provided as part of the 60% design. The specifications will give a detailed description of the work to be performed, the material to be used, installation instructions, and testing procedures. NRCE will develop special provisions for the project when specific guidance to the contractor is needed.</p> <p>The design process is iterative. At a minimum, NRCE will provide Dixon with 10% conceptual drawings, 60% plans, and final plans. Dixon will be given ample opportunity to review the plans and specifications throughout</p>
<p>Grantee Deliverable: (Describe the deliverable the grantee expects from this task)</p> <ul style="list-style-type: none"> <li>- Final Engineering Design Completed and Presented.</li> </ul>
<p>CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)</p> <ul style="list-style-type: none"> <li>- Final Engineering Design Completed and Presented to Dixon. CWCB will be officially notified and any grant related requirements or needs will be provided.</li> </ul>

Tasks
<b><u>Task 3 - CONSTRUCTION BID SERVICES</u></b>
<p>Description of Task:</p> <p><b>Task 3: Construction Bid Services</b> Once the design has been finalized, NRCE will work with Dixon to create a bid package.</p>
<p>Method/Procedure:</p>



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<b>Tasks</b>	
<b>Task 3: Construction Bid Services</b>	<p>Once the design has been finalized, NRCE will work with Dixon to create a bid package.</p> <ul style="list-style-type: none"> <li>- The bid package will contain the final design drawings, specifications, general bidding documents, and a bid schedule.</li> <li>- Next, NRCE will advertise the Project in local newspapers and bidding services websites.</li> <li>- NRCE will conduct a pre-bid meeting onsite with contractors to review the project's details.</li> </ul> <p>Finally, NRCE will work with Dixon to select a qualified contractor to complete the project.</p>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)	<ul style="list-style-type: none"> <li>- Qualified Contractor is Selected for Construction.</li> </ul>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)	<ul style="list-style-type: none"> <li>- Qualified Contractor is Selected for Construction, and CWCB is officially sent the details on the selection made. Any CWCB grant requirements will be complied with.</li> </ul>

<b>Tasks</b>	
<b><u>Task 4 - CONSTRUCTION OVERSIGHT</u></b>	
Description of Task:	
<p><b>Task 4: Construction Oversight</b></p> <p>NRCE anticipates that the construction portion of the project will take three to four weeks.</p>	
Method/Procedure:	





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Tasks	
<b>Task 4: Construction Oversight</b>	NRCE anticipates that the construction portion of the project will take three to four weeks. During this time, NRCE will provide the necessary oversight to ensure that the project is done according to the plans and specifications and to the satisfaction of Dixon. NRCE estimates spending six days onsite to oversee the construction project.
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)	<ul style="list-style-type: none"> <li>- Construction and Site Clean-up Completed in Accordance with Design Specifications.</li> </ul>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)	<ul style="list-style-type: none"> <li>- Construction and Site Clean-up Completed in Accordance with Design Specifications and CWCB will be officially notified. Any additional CWCB information or needs required by grant will be provided.</li> </ul>

Tasks	
<b><u>Task 5 - CONSTRUCTION</u></b>	
Description of Task:	<p><b>Task 5: Construction:</b> Construction is anticipated to take approximately 4 weeks to complete in compliance with Final Design Specifications.</p>
Method/Procedure:	



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<b>Tasks</b>	
<b>Task 5: Construction:</b>	<p>Construction is anticipated to take approximately 4 weeks and the phases of construction are roughly as follows:</p> <ul style="list-style-type: none"> <li>- Site preparation and removal of previous infrastructure</li> <li>- Construction and renovation in accordance with the project design</li> <li>- Construction completion inspection oversight requirements</li> <li>- Site clean-up and equipment removal</li> <li>- Final inspection oversight requirements</li> </ul>
Grantee Deliverable: (Describe the deliverable the grantee expects from this task)	<ul style="list-style-type: none"> <li>- DCDR Co Irrigation Supply Improvements Project Completed.</li> </ul>
CWCB Deliverable: (Describe the deliverable the grantee will provide CWCB documenting the completion of this task)	<ul style="list-style-type: none"> <li>- DCDR Co Irrigation Supply Improvements Project Completed. CWCB will be officially notified and any grant requirements will be provided to complete the project.</li> </ul>

**Repeat for Task 3, Task 4, Task 5, etc.**

<b>Budget and Schedule</b>
<p><b>Exhibit B - Budget and Schedule:</b> This Statement of Work shall be accompanied by a combined <a href="#">Budget and Schedule</a> that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in <u>excel format</u>. A separate <u>excel formatted</u> Budget is required for engineering costs to include rate and unit costs.</p>

<b>Reporting Requirements</b>
<p><b>Progress Reports:</b> 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.</p>
<p><b>Final Report:</b> At completion of the project, the grantee shall provide the CWCB a Final Report on the grantee's letterhead that:</p> <ul style="list-style-type: none"> <li>• Summarizes the project and how the project was completed.</li> <li>• Describes any obstacles encountered, and how these obstacles were overcome.</li> <li>• Confirms that all matching commitments have been fulfilled.</li> <li>• Includes photographs, summaries of meetings and engineering reports/designs.</li> </ul>



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## Reporting Requirements

### Payments

Payment will be made based on actual expenditures, must include invoices for all work completed and must be on grantee's letterhead. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

The CWCB will pay the last 10% of the entire water activity budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the water activity and purchase order or contract will be closed without any further payment. Any entity that fails to complete a satisfactory Final Report and submit to CWCB within 90 days of the expiration of a purchase order or contract may be denied consideration for future funding of any type from CWCB.

### Performance Requirements

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the final deliverable is completed to the satisfaction of CWCB staff. Once the final deliverable has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per the Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per the Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.



**COLORADO**

Colorado Water Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**WATER SUPPLY RESERVE FUND**

**Exhibit B - Budget and Schedule**

**Prepared Date: 25 February 2024**

**Name of Applicant: Dixon Canon Ditch and Reservoir Company**

**Name of Water Project: Dixon Irrigation Supply Improvements Project**

**Project Start Date: 15 January 2024**

**Project End Date: 1 November 2024**

<b>Task No.</b>	<b>Task Description</b>	<b>Task Start Date</b>	<b>Task End Date</b>	<b>Grant Funding Request</b>	<b>Match Funding</b>	<b>Total</b>
1	Pre-Design / Permitting	15-Jan-24	1-Apr-24	\$8,843	\$2,948	\$11,791
2	Engineering Design	01-Apr-24	01-Jun-24	\$15,207	\$5,069	\$20,276
3	Bid Services	01-Aug-24	01-Sep-24	\$5,054	\$1,684	\$6,738
4	Construction oversight	01-Sep-24	01-Nov-24	\$8,310	\$2,770	\$11,080
5	Construction	01-Oct-24	01-Nov-24	\$75,000	\$25,000	\$100,000
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
<b>Total</b>				\$112,414	\$37,471	\$149,885

**Colorado Water Conservation Board**  
**Detailed Budget Estimate**  
**Fair and Reasonable Estimate**

Prepared Date: 02/25/2024

Name of Applicant: Dixon Canon Ditch and Reservoir Company

Name of Water Project: Dixon Irrigation Supply Improvements Project

**EXAMPLE A: Study or Project Coordination**

	Project Manager	Technical Advisor	Water Resource Engineer	GIS/CAD Operator	Irrigation Systems Specialist	Engineering Contingency (15%)	Labor	Materials	Sub Total	Plus 5% Contingency	Total	CWCB Funds	Matching Funds
	\$ 235.00	\$ 300.00	\$ 185.00	\$ 110.00	\$ 300.00								
<b>Task 1: Pre-Design</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1921</b>							
Longitudinal Survey	8						8		\$ 3,734.00	\$ 3,930	\$ 3,930	\$ 2,948	\$ 983
NRCS Assessment	16						16		\$ 3,734.00	\$ 3,930	\$ 3,930	\$ 2,948	\$ 983
Permitting	18						18		\$ 3,735.00	\$ 3,931	\$ 3,931	\$ 2,948	\$ 983
<b>Task 2: Engineering Design</b>	<b>40</b>	<b>3</b>	<b>0</b>	<b>56</b>	<b>3</b>	<b>2916</b>							
Preliminary Design	10			56	3		69		\$ 9,632.00	\$ 10,138	\$ 10,138	\$ 7,604	\$ 2,535
60% and Final Engineering Design	30	3					33		\$ 9,632.00	\$ 10,138	\$ 10,138	\$ 7,604	\$ 2,535
<b>Task 3: Construction Bid Services</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1098</b>							
Creation of Bid Package	8						8		\$ 1,600.00	\$ 1,684	\$ 1,684	\$ 1,263	\$ 421
Bid Advertisement	4						4		\$ 1,600.00	\$ 1,685	\$ 1,685	\$ 1,264	\$ 421
Pre-bid onsite contractor meetings	4						4		\$ 1,600.00	\$ 1,684	\$ 1,684	\$ 1,263	\$ 421
Contractor Selection	8						8		\$ 1,600.00	\$ 1,685	\$ 1,685	\$ 1,264	\$ 421
<b>Task 4: Construction Oversight</b>	<b>16</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>1400</b>							
Pre-construction contractor integration	8						8		\$ 3,508.00	\$ 3,693	\$ 3,693	\$ 2,770	\$ 923
Construction design oversight	4		32				36		\$ 3,508.00	\$ 3,693	\$ 3,693	\$ 2,770	\$ 923
Construction completion and Site Clean-up Inspections	4						4		\$ 3,509.00	\$ 3,694	\$ 3,694	\$ 2,771	\$ 924
<b>Task 5: Construction</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>								
Site preparation and removal of previous infrastructure							80	\$11,875	\$ 23,750.00	\$ 25,000	\$ 25,000	\$ 18,750	\$ 6,250
Construction and Renovation							206	\$30,875	\$ 61,750.00	\$ 65,000	\$ 65,000	\$ 48,750	\$ 16,250
Construction completion inspection requirements	2	2			2		10	\$2,375	\$ 4,750.00	\$ 5,000	\$ 5,000	\$ 3,750	\$ 1,250
Site clean-up and equipment removal							16	\$2,375	\$ 4,750.00	\$ 5,000	\$ 5,000	\$ 3,750	\$ 1,250
<b>TOTAL</b>	<b>\$ 28,670</b>	<b>\$ 900</b>	<b>\$ 5,920</b>	<b>\$ 6,160</b>	<b>\$ 900</b>	<b>\$ 7,335</b>					<b>\$ 149,885</b>	<b>\$ 112,414</b>	<b>\$ 37,471</b>