

# WaterSMART

WATER AND ENERGY EFFICIENCY GRANTS FOR FY 2023

NO. R23AS00008  
FUNDING GROUP I

**MONARCH & CEDARVIEW CANAL IMPROVEMENT PROJECT**  
**DUCHESNE COUNTY WATER CONSERVANCY DISTRICT**

IN ASSOCIATION WITH:

DRY GULCH IRRIGATION COMPANY  
MONARCH CANAL & RESERVOIR COMPANY  
MOON LAKE WATER USERS ASSOCIATION

**MONARCH/NEOLA, DUCHESNE COUNTY, UTAH**

CLYDE WATKINS ■ GENERAL MANAGER  
DUCHESNE COUNTY WATER CONSERVANCY DISTRICT  
275 WEST 800 SOUTH  
ROOSEVELT, UT 84066  
801.360.0312

ERIC MAJOR, P.E.  
PROJECT MANAGER  
JONES & DEMILLE ENGINEERING, INC.  
520 WEST HIGHWAY 40  
ROOSEVELT, UT 84066  
(435) 722-8267  
ERIC.M@JONESANDEMILLE.COM

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## TECHNICAL PROPOSAL

### EXECUTIVE SUMMARY

Date: 7/28/2022

Applicant: Duchesne County Water Conservancy District

City, County, State: Neola/Monarch, Duchesne County, Utah

Category A or B: Category A

Partners: Dry Gulch Irrigation Company (DGIC), Monarch Canal & Reservoir Company, and Moon Lake Water Users Association (MLWUA)

Project Title: Monarch & Cedarview Canal Improvement Project

Project Summary: The Monarch & Cedarview Canal Improvement Project is a partnering effort between the Duchesne County Water Conservancy District (DCWCD), Monarch Canal & Reservoir Company (MCRC), and Dry Gulch Irrigation Company (DGIC), along with the Moon Lake Water Users Association (MLWUA). DCWCD is acting as the sponsor for the project with financial support from the other entities involved. The Project consists of construction of a diversion structure on the Uinta River for the Cedarview Canal for DGIC and MLWUA, with automated gates and flow measurement telemetry, and construction of a irrigation control structure at the intersection of the Cedarview and Yellowstone Feeder Canals. The MCRC portion of the project consists of a diversion structure on Dry Gulch Creek for the Monarch Canal, installation of 6 steel cutthroat flumes and three telemetry sites, along with two mag meters for pipelines on the end of the system. The improvements in this joint venture will better manage water in the north-eastern area of the DCWCD service region and provide water savings in the Uinta River and Dry Gulch Creek drainages. The telemetry and automation will greatly reduce the time and resources required by the Uinta & Whiterocks River Commissioner (UWRC) to appropriately divert water to the many different water users on the system, including the Ute Tribe. MCRC will also greatly benefit from improvements on their system to reduce water conflict with flow measurement and also an understanding of their water losses for prioritization of future phases of canal piping or lining. They often are unable to receive their precious storage water in Heller Lake during irrigation season to inadequate facilities and high seepage losses in the ditch. As a whole, these proposed improvements will conserve approximately 1585 acre-feet of irrigation water lost due to these operational obstacles

Length of Time: 12 to 18 Months

Completion Date: November 2024

Federal Facility Location: Ashley National Forest, majority of Project on tribal lands and private land

## PROJECT LOCATION

*Provide detailed information on the proposed project location or project area including a map showing the specific geographic location. For example, {project name} is located in {state and county} approximately {distance} miles {direction, e.g., northeast} of {nearest town}. The project latitude is {##°##'N} and longitude is {###°##'W}.*

The project ranges from Heller Lake, to Uinta River, all north and West of Neola, Utah. See attached Project Location Maps, also the coordinates for Monarch diversion structure are 40°31'38.88"N, 110°12'22.67"W and Cedarview Canal Diversion is found at 40°31'14.76"N, 110° 2'41.56"W, and the control structure on the Yellowstone/Cedarview Canal is found at 40°27'43.60"N, 110° 4'45.67"W.

## TECHNICAL PROJECT DESCRIPTION

*Provide a more comprehensive description of the technical aspects of your project, including the work to be accomplished and the approach to complete the work. This description should provide detailed information about the project including materials and equipment and the work to be conducted to complete the project. This section provides an opportunity for the applicant to provide a clear description of the technical nature of the project and to address any aspect of the project that reviewers may need additional information to understand.*

The Cedarview Canal portion of the project includes demolition of the existing dilapidated gate structure on the Uinta River and removal of a makeshift rock diversion berm to construct a concrete diversion structure with sufficient sized gates for both the Cedarview Canal flow of approximately 80 cfs as well as flood stage river flows for a portion of the Uinta River. The braided river channel in this area is split and a large portion of the flood flows bypasses the Cedarview diversion structure, such that it hasn't been washed away yet, although it is nearing that state. The proposed diversion will have two radial gates for the canal diversion and a single radial gate near the intake for the canal on the river to flush sediment (cobble rocks) and debris through the structure to keep the gate intake area clean and flowing. The canal gates will be automated with actuators and a combination power source of solar and water turbine within the flow to charge a battery bank and provide power to open, close and adjust gates to maintain steady deliveries as the river fluctuates. A concrete wall across the river will also allow the river stage to be determined and a stilling basin to capture river height will be installed so that the Uinta & Whiterocks River Commissioner (UWRC) can have another data point to understand river flows and increase accuracy of estimated flows to divide the river for water rights purposes. The flow measurement of the Cedarview canal will be accomplished by a weir below the gates, with a stilling well and data logger there as well to provide remote reading of the flow and records to report flow rates and volumes diverted. This will also improve the estimation of seepage between the diversion at the river and the control structure downstream near the Yellowstone Feeder Canal (YFC) intersection.

The second structure will be at the intersection of the YFC and Cedarview Canal junction, which allows Dry Gulch and MLWUA to send water further down the YFC, or the Cedarview Canal to the

Rainbow Canal which leads to Browns Draw Reservoir. This structure will increase accuracy in splitting flows to Dry Gulch irrigation or storage to Browns Draw and the classes of Dry Gulch that receive irrigation water through that reservoir (Class E, K2, and F). This structure has had trash problems as well and a new design for check boards and opening up the capacity will mitigate this need for constant maintenance during high water flows. Flow measurement capability will also be added to this structure where it wasn't available before.

The Monarch Canal project components consist of priority features that will become the first phase of several phases of improvements slated for the system. The primary elements of Phase I include purchasing steel material to build movable steel cutthroat flumes with cutoff walls and wingwalls for MCRC shareholders to potentially fabricate for in-kind contributions. These flumes will be placed in strategic locations, one just below the outlet of Heller Lake, their storage reservoir on Forest Service lands, one just downstream of their diversion structure off Dry Gulch Creek for measurement of flows entering Monarch Canal. A third and fourth would be installed at the first major split in the canal, going on either side of the Browns Draw Reservoir, therefore accounting for flows going each way and also adding together to come up with a loss amount between the heading and this first split location. The other two would be in areas with deliveries to water users and at the location where canal water goes into their storage pond. Three of the key Flumes would also have stilling wells placed next to them, with level sensors and a data logger, solar panel setup that can be manually read, unless signal is sufficient to utilize other nearby towers to send signals back for remote data reads. A future phase would be able to make that capability a reality.

Two magnetic water meters for a 6-inch and 8-inch pipeline would also be purchased and installed to account for the flows they divert near the downstream end of the system. Additional improvements regarding the diversion structure itself would also be completed, which is in disrepair and in a beaver-dam ridden location. Minor access roadway improvements to follow canal and recognized access route across Ute Tribal lands would also be important for construction access and long term maintenance. As this is the first proposed phase, future phases could include a study on seepage with these new data loggers on flumes, and then targeting the worst segments with either a pipeline or canal liner solution. This allows Monarch to spend money in the best way possible, as their resources are very limited.

The proposed project will include the following elements:

- Preliminary design and hydraulic analysis of diversion structures, flow measurement devices (cutthroat flumes), and telemetry/automation elements to the structures and flumes;
- Analysis and selection of most cost-effective and available materials, gates, and supplies
- Environmental surveys for Ute-Ladies Tresses, Wetland Delineation, cultural surveys, and other necessary NEPA work.
- Design of Structures, Flow Control, Flow Measurement, and Telemetry/Automation
- Contractor selection and contracting; Material purchasing and Fabrication of steel flumes and gates;

- Access road restoration and improvements and existing structure demolition and stabilization included in project
- Construction of projects, dewatering, concrete construction, flow control gates installed, flow measurement structures and instruments, telemetry and automation of gates, power installation (likely solar and even water turbine), commissioning of all project elements.
- Erosion control, streambank stabilization, and site restoration
- Monitoring of improvements and assessment of project goals and water conservation measures

The following list of objectives for the project include:

- Install automated flow control gates for Cedarview Canal on Uinta River
- Increase Cedarview and Monarch diversion structures ability to pass flood stage flows established in design criteria
- Stabilize channel and allow cobble and debris to pass through structures without damages and decrease burden of daily maintenance
- Increase efficiency in water deliveries to irrigators and storage
- Increase accuracy and timeliness of water deliveries through telemetry and gages
- Reduce required maintenance and operation cost for each irrigation company/UWRC
- Reduce conflict from shareholders, ditch companies, Tribal users through accurate measurement and increased accountability

## EVALUATION CRITERIA

*The evaluation criteria portion of your application should thoroughly address each criterion and subcriterion in the order presented to assist in the complete and accurate evaluation of your proposal.*

*(See Section E.1. Technical Proposal: Evaluation Criteria for additional details, including a detailed description of each criterion and subcriterion and points associated with each.)*

### EVALUATION CRITERION A: QUANTIFIABLE WATER SAVINGS (28 POINTS)

*Up to 28 points may be awarded for this criterion. This criterion prioritizes projects that will conserve water and improve water use efficiency, supporting the goals of E.O. 14008. Points will be allocated based on the quantifiable water savings expected as a result of the project. Points will be allocated to give greater consideration to projects that are expected to result in more significant water savings.*

#### DESCRIBE THE AMOUNT OF ESTIMATED WATER SAVINGS

*For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project.*

*Please include a specific quantifiable water savings estimate; do not include a range of potential water savings.*

Estimated water savings for the total project is 1585 acre-feet annually. Broken down by project, the Cedarview Canal Improvements have a considerable operational loss as well as losses due to the existing structure and configuration.. Opportunity losses at the Cedarview diversion due to manual and inadequate control are estimated at 170 acre-feet per year. The UWRC is often taking 2 to 3 trips to the site per day to capture the high diurnal flows from the river between 11 PM and 2 AM, then makes adjustments later when it drops during the day, often with excess water going downstream that could have been captured. It was estimated that 2 hours worth of time was lost due to physical and manual operation required to capture flows that could have been sent through the Rainbow canal to Browns Draw Reservoir for later use by irrigators. Using a conservative dataset at Rainbow, not considering the higher flows at the diversion on the Uinta, the flows during the runoff period and the later fall period when tribal duty starts to lower and river flows are sometimes available to DGIC, those peak flows were extended by two hours for a volume representative of what was lost operationally if gates had been open.

There is also a leak through the existing structure, gates, and bank that is approximately 5 to 7 cfs that runs during periods when the water rights do not deliver to Cedarview, and this low flow is lost in its entirety in the canal downstream of the diversion, equating to 1260 acre-feet. Operational losses there have been determined through observation and records from the river commissioner and irrigation company staff. Losses due to high runoff (diurnal patterns of flow in the river) being spilled down canals without adequate control structures or delayed response time with check boards was not estimated, but considered as a factor in the losses

Monarch quantifiable water savings are estimated to be 155 acre-feet, but could be much larger if data was available to prove observations. In the past, runoff water and streamflow from Dry Gulch Creek being diverted was captured such that the ditch at the head of the Monarch canal was full without overtopping. The water loss reduced flows down to a fraction (2 to 3 cfs stream) of the 13 cfs water right once it gets to the water users, from observation of the President and canal board members. Heller Lake flows are released using the existing gate on the reservoir and managed by trial and error for a consistent flow that is shared through turns according to water shares. If the ditch is dry, the releases from Heller Lake will often not make it to the users at all. In other words, 100% loss of that storage water. This equates to 155 acre-feet alone. Besides old splitter structures and boards to divide the flow, there are no current flow measurement devices on the system and therefore this project is critical. See water loss calculation data in Appendix D.

#### DESCRIBE CURRENT LOSSES

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*Please explain where the water that will be conserved is currently going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground)?*

*If known, please explain how current losses are being used. For example, are current losses returning to the system for use by others? Are current losses entering an impaired groundwater table becoming unsuitable for future use?*



*Are there any known benefits associated with where the current losses are going? For example, is seepage water providing additional habitat for fish or animal species?*

Water delivered through the Cedarview Canal comes from the Uinta River drainage in the Uinta Mountains to agricultural irrigators on the east side of Duchesne County and western Uintah County. Storage deliveries are also provided to Browns Draw reservoir through the Rainbow Canal. Water lost in the system consists of over-deliveries to irrigators when adjustments can't be made quick enough during peaking of the river or under-deliveries when the opposite occurs: river peaking without the ability to send excess flows to meet irrigation water rights. Being able to more efficiently divert flows from the Uinta River and manage flows at the Cedarview-YFC control structure at their confluence will have a positive net gain on the Uinta River and downstream users. Water saved will remain in the river and eventually enter the Green River and Colorado River Systems. During high water and in cases of over-delivery, excess flows are spilled at the end of the irrigation canal systems and enter natural drainages and/or seep into the ground, contributing to increasing salinity for systems without liners or pipe. Because of the difficulty of operating the existing structures and lack of flow measurement and telemetry, water is managed poorly with under and over-deliveries to the Cedarview Canal and associated branch canals and ditches. The problem is expedited because of the small amount of storage on the Uinta system to provide a more consistent flow and longer availability of irrigation water. Water users rely on the diversion and control structures to effectively manage water flows for obtaining sufficient water for irrigation.

Water lost due to leaking gates and existing deficiencies allowing leakage flows to travel down the Cedarview Canal seep into the ground through the first mile or two of canal and are lost due to seepage.

Monarch Canal losses are primarily seepage related, throughout the length of the canal and ditches. The Dry Gulch Creek drainage has losses between MCRC's Heller Lake dam and the diversion structure or headgate, but the majority of the losses are through the man-made channel along the rocky sidehills above the drainages. There are also losses due to the remote nature of the diversion and inability to respond quickly to blockages or higher flows that pass the headgate without being captured. The current configuration is problematic and the proposed diversion will mitigate the issues faced by MCRC. Water lost past the diversion continues down the Dry Gulch Creek drainage either seeps into the ground or flows persist, water can make it into the YFC operated by MLWUA. This is a rare occurrence based on the observations of MLWUA and MCRC.

#### DESCRIBE THE SUPPORT/DOCUMENTATION OF ESTIMATED WATER SAVINGS

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*Please provide sufficient detail supporting how the estimate was determined, including all supporting calculations. Note: projects that do not provide sufficient supporting detail/calculations may not receive credit under this section. Please be sure to consider the questions associated with your project type (listed below) when determining the estimated water savings, along with the necessary support needed for a full review of your proposal.*

*In addition, please note that the use of visual observations alone to calculate water savings, without additional documentation/data, are **not** sufficient to receive credit under this section. Further, the water savings must be the result of reducing or eliminating a current, ongoing loss, not the result of an expected future loss.*

The Cedarview heading does not have telemetry or any data logging equipment, however, the UWRC has taken record of the flows diverted over the years in his stewardship of dividing the river flows on the Uinta and meeting the water rights and storage obligations for all water users, including the Ute Tribe. The Rainbow diversion on the lower end of the Cedarview canal does have data in the <http://www.duchesneriver.org/rivers/uinta-white-rocks/> website and this was used to cross check the estimated flows and diversions at the river but also at the control structure. See attached data and calculations/assumptions in Appendix D.

The Monarch system has no flow measurement devices in place and visual inspections are all that has been available until after the proposed flumes in this first phase of the project. The ditch itself at the head has capacity to flow the water right of 13 cfs, and visual observations of the amount at the irrigation deliveries show a substantial loss, with 2 to 3 cfs being available at the end of the system. This equates to more than 75% loss at times. They also have record of opening Heller Lake and watching flows enter the canal and then observing nothing coming out at the end of the ditch or 100% loss.

**ADDRESS THE FOLLOWING ACCORDING TO THE TYPE OF INFRASTRUCTURE IMPROVEMENT YOU ARE PROPOSING FOR FUNDING**

*See Appendix A: **Benefit Quantification and Performance Measure Guidance** for additional guidance on quantifying water savings.*

**(1) Canal Lining/Piping:** *Canal lining/piping projects can provide water savings when irrigation delivery systems experience significant losses due to canal seepage.*

No pipe or canal liner is being proposed during the installation of this project

**(2) Municipal Metering:**

No municipal meters included in this application and scope of work.

**(3) Irrigation Flow Measurement:** *Irrigation flow measurement improvements can provide water savings when improved measurement accuracy results in reduced spills and over-deliveries to irrigators. Applicants proposing municipal metering projects should address the following:*

- (a) How have average annual water savings estimates been determined?  
Please provide all relevant calculations, assumptions, and supporting data.*

Average annual water savings have been estimated based on UWRC flow records and experience of the river commissioner and DGIC Class F Director, as well as MCRC President, who is also the largest water shareholder trying to irrigate with the flows that are available. A downstream source of data on the Rainbow Canal was used from the website <http://www.duchesneriver.org/rivers/uinta-white-rocks/> with many of the rivers and major canals showing real time data and a history of flows entering each respective canal. See Appendix D.

*(b) Have current operational losses been determined? If water savings are based on a reduction of spills, please provide support for the amount of water currently being lost to spills.*

Operational losses have been determined through observation and records from the river commissioner, MCRC and DGIC staff. In discussions with DGIC and UWRC, the Cedarview diversion has an early priority date which entitles them to portions of high flow when the daily peaks and spikes in the system show in the river during high runoff period. The diurnal patterns of flow in the river are consistently spilled when sent down canals or ditches without reservoir storage or adequate control. The UWRC is often having to visit the Cedarview site 2 to 3 times a day to manually adjust the gates, which at times are over-delivering, but more often are not delivering what could be captured and sent to the Browns Draw Reservoir or other Class F water users along the Cedarview Canal. The Rainbow canal dataset, along with similar diversions off the Uinta River (Uinta No. 1 and Bench Canal headings) was used to find the daily averages of flow and then extrapolated to quantify the peaks above the average for a flow amount considered to be over-delivery water. The averages are conservative numbers, as the river commissioner and ditchriders often have to over-estimate the needed flow to make consistent deliveries during the fluctuating river supply. The Cedarview diversion and automation will allow the river commissioner to keep flows much more stable and allow fluctuations to pass downstream for tribal water users and other Uinta River water users.

During periods where the Cedarview diversion should be shut off for higher priority users (like the Ute Tribe filings), there has been an observed 5 to 7 cfs leaking through existing gates and structure, as well as cobble rock banks and dispersing into the Cedarview Canal, making it a mile or two before seepage eliminates the flow. This loss is estimated to be 1000 acre-feet annually based on records from the Rainbow canal data showing periods of no flow.

MCRC has observed a high loss through Dry Gulch Creek at the diversion/headgate location which will also be rectified with the proposed MCRC diversion. At times during high runoff or during irrigation season and beaver activity, their flows have been reduced 75% until the problem is taken care of and makeshift repairs completed.

*(c) Are flows currently measured at proposed sites and if so, what is the accuracy of existing devices? How has the existing measurement accuracy been established?*

Flows are not currently measured at either the Cedarview diversion, Cedarview-YFC Control structure, or the Monarch Canal diversion. Similar structures on the Uinta River are monitored and data recorded at the following website: <http://www.duchesneriver.org/rivers/uinta-white-rocks/>

This includes the Rainbow canal structure which provides one source of data coming from the Cedarview Canal. This project will establish the flow measurement that is sorely needed for these two areas of the system.

*(d) Provide detailed descriptions of all proposed flow measurement devices, including accuracy and the basis for the accuracy.*

Proposed flow measurement devices include stilling wells with a stand pipe and lockable covers to house water level sensing devices tied to the proposed telemetry and SCADA system. It is proposed to have a gage on the main channel of the river and another on the diversion channel at Cedarview, allowing a measurement for water passing through diversion to remain in the Uinta River channel. A broad crested weir will be installed on the channel going to the west for accurate flow measurements. It is also proposed to install staff gages with appropriate markings and increments for the river and the diversion channel. Flow control gates will also have some level of measuring capability, with automation for remote operation. Accuracy will be within tolerances of the latest technology installed on the proposed Cedarview structure.

The Cedarview-YFC Control Structure will also utilize a staff gauge and stilling basin-level sensor to report flows going each direction and quantifying the water passed through.

Proposed steel cutthroat flumes for the MCRC system will provide much needed flow measurement on the system, with three sites having telemetry and others having a staff gauge for visual checks that flows are split evenly or proportionate to the shares involved. The accuracy of cutthroat flumes range from 3 to 5% and the proposal to utilize steel instead of concrete will also allow the structure to be leveled in the field and also adjusted more readily to keep it calibrated and accurate.

*(e) Will annual farm delivery volumes be reduced by more efficient and timely deliveries? If so, how has this reduction been estimated?*

Water diverted for the Cedarview canal from the Uinta River and the Monarch system will be more consistent with the proposed diversion structure improvements and flumes such that the net benefit will be realized in the entire river and creek systems. More control and automation on the Cedarview side will bring a steady stream for on-farm deliveries to also be steady and efficient. This method follows the over-deliveries calculations noted above.

*(f) How will actual water savings be verified upon completion of the project?*

Using existing UWRC reports and the Rainbow structure data to estimate flow rates and deliveries on Cedarview, records will be compared to new data gathered by the proposed structures and

telemetry systems to document water deliveries and pass-through flows. Annual reports will be generated by the UWRC for a comparison and shared with those interested as well as posted online in a manner similar to and in conjunction with the Duchesne River system website: <http://www.duchesneriver.org/>.

Monarch canal data will become the first official dataset to compare future phases to and also assist MCRC in identifying the higher priority areas for seepage reduction, where their losses are the greatest. This will help formulate Phase II improvements for future funding and planning.

***(4) Turf Removal:***

No Turf Removal included in this application or scope of work.

***(5) Smart Irrigation Controllers, Controllers with Rain Sensor Shutoff, Drip Irrigation, and High-Efficiency Nozzles:***

Not applicable to this project.

***(6) High-Efficiency Indoor Appliances and Fixtures:***

Not applicable to this project.

***(7) Commercial Cooling Systems:***

Not applicable to this project.

## EVALUATION CRITERION B: RENEWABLE ENERGY (20 POINTS)

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*Up to **20 points** may be awarded based on the extent to which the project increases the use of renewable energy or otherwise results in increased energy efficiency and reduced greenhouse gas emissions.*

*For projects that include constructing or installing renewable energy components, please respond to Subcriterion No. B.1: Implementing Renewable Energy Projects Related to Water Management and Delivery. If the project does not implement a renewable energy project but will increase energy efficiency, please respond to Subcriterion No. B.2. Increasing Energy Efficiency in Water Management. If the project has separate components that will result in both implementing a renewable energy project and increasing energy efficiency, an applicant may respond to both.*

*Note: an applicant may receive points under both Subcriteria No. B.1 and B.2 if the project consists of an energy efficiency component separate from the renewable energy component of the project. However, an applicant may receive no more than 20 points total under both Subcriteria No. B.1 and B.2.*

### SUBCRITERION NO. B.1: IMPLEMENTING RENEWABLE ENERGY PROJECTS RELATED TO WATER MANAGEMENT AND DELIVERY

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*Up to **20 points** may be awarded for projects that include construction or installation of renewable energy components (e.g., hydroelectric units, solar- electric facilities, wind energy systems, or facilities that otherwise enable the use of renewable energy). Projects such as small-scale solar resulting in minimal energy savings or production will be considered under Subcriterion No. B.2.*

***Describe the amount of energy capacity.*** *For projects that implement renewable energy systems, state the estimated amount of capacity (in kilowatts) of the system. Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate.*

The renewable energy systems included in this project include solar panels for flow metering and data loggers and a small water turbine to charge batteries for gate actuators on the Cedarview structure. A typical panel that DCWCD and UWRC would utilize should have an average capacity of 300 watts. The specific type of water turbine has not been finalized, but a similar capacity of 3 to 500 watts would likely be sufficient to maintain a battery charge for gates depleting battery by opening and therefore allowing higher velocity flow to pass under gates where water turbine would be placed.

***Describe the amount of energy generated.*** *For projects that implement renewable energy systems, state the estimated amount of energy that the system will generate (in kilowatt hours per year). Please provide sufficient detail supporting the stated estimate,*

*including all calculations in support of the estimate. Please explain how the power generated as a result of this project will be used, including any existing or planned agreements and infrastructure*

The power used in this project will be minor, with enough energy to operate sensors and SCADA system. This information will provide the UWRC, MCRC, and DGIC with flow data and allow them to make adjustments to the system as appropriate. The larger power requirement lies in the gate automation and actuators for opening and closing, which would be handled by a battery-water turbine setup for reliable power despite late evening or cloudy conditions, which often correspond to the times that the gates are needed due to the river rising or falling.

***Describe the status of a mothballed hydro plant.***

Not applicable for this project.

***Describe any other benefits of the renewable energy project. Please describe and provide sufficient detail on any additional benefits expected to result from the renewable energy project, including:***

*How the system will combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions*

*Expected environmental benefits of the renewable energy system*

*Any expected reduction in the use of energy currently supplied through a Reclamation project.*

*Anticipated benefits to other sectors/entities.*

*Expected water needs, if any, of the system.*

This projects telemetry and automation, with power supplied by the renewable resources of solar and water will reduce the required amount of travel and time spent to adjust the Cedarview and the Monarch diversions. With the Cedarview diversion being regulated remotely there will be less power and fuel consumption as the system is being regulated by the UWRC.

**SUBCRITERION NO. B.2: INCREASING ENERGY EFFICIENCY IN WATER MANAGEMENT**

***Up to 10 points may be awarded for projects that address energy demands and reduce greenhouse gas emissions by retrofitting equipment to increase energy efficiency and/or through water conservation improvements that result in reduced pumping or diversions.***

***Describe any energy efficiencies that are expected to result from implementation of the water conservation or water efficiency project (e.g., reduced pumping).***

*If quantifiable energy savings is expected to result from the project, please provide sufficient details and supporting calculations. If quantifying energy savings, please state the estimated amount in kilowatt hours per year.*

The project will directly benefit the UWRC in his duties and associated irrigation companies required to maintain and visit the sites. Automation, telemetry, and SCADA will reduce the number of trips that the UWRC is required to take for the Cedarview diversion annually by approximately 180 trips, averaging 36 miles per trip—using an IRS mileage rate of \$0.625 per mile results in an approximate annual savings of \$4050 for mileage alone. Further, it is estimated that there are substantial savings resulting from a more efficient and improved structure with a sufficient concrete diversion wall to reduce the amount of time and resources required to send heavy machinery and manpower into the river to remove and pile up cobble rocks, manipulating the river due to inadequate control at the existing structure. Monarch has a similar maintenance issue with beaver dams and debris, as well as erosion in the main channel of Dry Gulch Creek which causes water to bypass the headgate and the associated lost water.

*How will the energy efficiency improvement combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions.*

Less physical travel for adjustments due to flow fluctuations and the nature of the water rights for the Uinta River system will greatly reduce required vehicle usage and therefore reduce greenhouse gas emissions.

*If the project will result in reduced pumping, please describe the current pumping requirements and the types of pumps (e.g., size) currently being used. How would the proposed project impact the current pumping requirements and energy usage?*

The Monarch and Cedarview diversions and improvements are situated in locations that provides gravity flow to avoid pumping water for water users in the system.

*Please indicate whether your energy savings estimate originates from the point of diversion, or whether the estimate is based upon an alternate site of origin.*

The Monarch and Cedarview diversions and improvements are at the point of diversion for their respective canals.

*Does the calculation include any energy required to treat the water, if applicable?*

Not applicable

*Will the project result in reduced vehicle miles driven, in turn reducing greenhouse gas emissions? Please provide supporting details and calculations.*

Yes, as described in the section above, the Cedarview Diversion alone could save 6,480 miles on a vehicle for the UWRC who often is travelling two to four times per day to the structure to open, adjust,



close, and adjust again, all of which would be eliminated with automation and reliable flow measurement. For Monarch Canal, with a flume at Heller Lake, they will be able to quickly identify the flow rate they need to release to get the desired diversion without travelling back down the ditch to verify and then back up to the reservoir gate to adjust. This would save 4 to 6 trips 46 miles round trip.

*Describe any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).*

UWRC, MLWUA, and DGIC already use gravity-fed systems with solar panel SCADA for flow control and measurement devices on other components of their system and have a network created that will integrate nicely into the proposed improvements. The small scale solar and water turbines to power batteries, actuators, and telemetry will result in energy savings, decrease large costs if power was to be brought to these remote sites, and produce a small amount of energy to perform the needs of each site.

#### EVALUATION CRITERION C: SUSTAINABILITY BENEFITS (20 POINTS)

*Up to 20 points may be awarded under this criterion. This criterion prioritizes projects that address a specific water and/or energy sustainability concern(s), including enhancing drought resilience, addressing the current and future impacts of climate change, and resolving water related conflicts in the region. In addition, this criterion is focused on the benefits associated with the project, including benefits to tribes, ecosystem benefits, and other benefits to water and/or energy supply sustainability.*

#### ENHANCING DROUGHT RESILIENCY

*In addition to the separate WaterSMART Environmental Water Resources Projects NOFO, this NOFO places a priority on projects that enhance drought resiliency, through this section and other sections above, consistent with the SECURE Water Act. Please provide information regarding how the project will enhance drought resilience by benefitting the water supply and ecosystem, including the following:*

*(a) Does the project seek to improve ecological resiliency to climate change?*

The project improves ecological resiliency by more efficiently utilizing water that is diverted from the Uinta River and Dry Gulch Creek and allows agricultural products to be grown in an otherwise desert region. With climate change necessitating better stewardship of water resources, this project is a high priority for DCWCD and the project sponsors to continue their wise use of the water they are responsible for and the agricultural producers whom they serve.

*(b) Will water remain in the system for longer periods of time? If so, provide details on current/future durations and any expected resulting benefits (e.g., maintaining water temperatures or water levels).*

Water savings from efficient diversions will remain in the Uinta River or Dry Gulch Creek such that overall total flows in these natural drainages and river systems will increase and maintain or improve water temperatures for trout fishery and other riparian resources. During periods of plenty and excess flows, there will be benefits seen along the open channel canals and ditches.

*(c) Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)? Please describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project or is subject to a recovery plan or conservation plan under the Endangered Species Act (ESA).*

DGIC, MLWUA, and MCRC utilize an open channel canal and ditch system that diverts water from the Uinta River and Dry Gulch Creek, both tributaries of the Green River with 4 endangered fish species (bonytail, Colorado pikeminnow, humpback chub and razorback sucker) and 3 threatened species (bluehead sucker, flannelmouth sucker, and roundtail chub). Efficiency in the irrigation systems along the Uinta River and Dry Gulch Creek will directly benefit these species, which have been adversely affected by a Reclamation project such as the Flaming Gorge Dam.

*(d) Please describe any other ecosystem benefits as a direct result of the project.*

The natural resource concerns addressed by this project includes Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species and will decrease the chances for the resource concern of inadequate water becoming an issue for these and many other species using the Uinta River riparian area and Dry Gulch Creek.

*(e) Will the project directly result in more efficient management of the water supply? For example, will the project provide greater flexibility to water managers, resulting in a more efficient use of water supplies?*

The Cedarview Diversion and Cedarview-YFC control Structure diverts and routes water for water users in eastern Duchesne County and western Uintah County from the Uinta River (see attached project location map). Efficiencies in the delivery of irrigation water to water users holding water rights on the Uinta River system benefit the entire system and increase flow in the Uinta River system wide. Currently, the UWRC must divert as much water as possible with water rights to deliver water to producers, livestock and maintain irrigation storage in reservoirs during the winter months. With greater efficiency in delivery and measurement of water in the UWRC system, less water will be

required to be re-directed at the diversions because of more accurate delivery, thus allowing more flows below the Cedarview diversion on the Uinta River.

Monarch's improvements at the diversion on Dry Gulch Creek and establishing critical flow measurement locations will also increase efficiency and provide a net benefit to that drainage system and lower users, wildlife, tribal grazing lands, and the basin in general.

*(f) Projects that are intended to improve streamflows or aquatic habit, and that are requesting \$500,000 or more in Federal funding, must include information about plans to monitor the benefits of the project. Please describe the plan to monitor improved streamflows or aquatic habit benefits over a five-year period once the project has been completed. Provide detail on the steps to be taken to carry out the plan*

Improvements will be a side affect of the project and request is less than the \$500,000.

#### ADDRESSING A SPECIFIC WATER AND/OR ENERGY SUSTAINABILITY CONCERN(S)

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*Will the project address a specific sustainability concern? Please address the following:*

*(a) Explain and provide detail of the specific issue(s) in the area that is impacting water sustainability, such as shortages due to drought and/or climate change, increased demand or reduced deliveries.*

Water sustainability issues for the area are coming from shortages due to drought and any other change or reason for less precipitation, less snowpack during winter months, and increased pressure on agriculture for economically viable products despite growing costs of fuel, materials, and chemicals as well as increased demand upon certain products and services.

*(b) Explain and provide detail of the specific issue(s) in the area that is impacting energy sustainability, such as reliance on fossil fuels, pollution, or interruptions in service.*

The Uintah Basin is a valuable source of fossil fuels and has impacts due to fossil fuel extraction, which has a strain on water resources in both population boom & bust cycles as well as production water for extraction activities. Irrigation water is sometimes targeted for lease by these companies and therefore unavailable for agriculture and other ecological resources.

*(c) Please describe how the project will directly address the concern(s) stated above. For example, if experiencing shortages due to drought or climate change, how will the project directly address and confront the shortages?*

Efficiency in irrigation will reduce impacts of shortages and improve drought conditions as much as possible with the water that is available. Reducing losses, improved measurement and accountability of water usage, and increased response time for adjustments will benefit both the direct water users and indirect users/beneficiaries.

*(d) Please address where any conserved water as a result of the project will go and how it will be used, including whether the conserved water will be used to offset groundwater pumping, used to reduce diversions, used to address shortages that impact diversions or reduce deliveries, made available for transfer, left in the river system, or used to meet another intended use.*

As noted above, the conserved water will stay within the Uinta and Dry Gulch Creek drainages.

*(e) Provide a description of the mechanism that will be used, if necessary, to put the conserved water to the intended use.*

The mechanisms will be radial gates or flow control devices that will allow conserved water to pass through diversion and continue downstream to benefit other users, wildlife, tribal grazing lands, etc.

*(f) Indicate the quantity of conserved water that will be used for the intended purpose(s).*

See water saving quantity section and Appendix D.

#### OTHER PROJECT BENEFITS

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*Please provide a detailed explanation of the project benefits and their significance. These benefits may include, but are not limited to, the following:*

**(1) Combating the Climate Crisis: E.O. 14008: Tackling the Climate Crisis at Home and Abroad, focuses on increasing resilience to climate change and supporting climate resilient development. For additional information on the impacts of climate change throughout the western United States, see:**

**<https://www.usbr.gov/climate/secure/docs/2021secure/2021SECUREReport.pdf>**

*Please describe how the project will address climate change, including the following:*

*(a) Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.*

The impacts of climate change in the Uintah Basin are primarily evident in water supply and drought. This directly correlates with the amount of water available for agriculture, which is also a crisis waiting to happen. Conservation of the precious water resource that DCWCD has is of top priority, and making

operational changes and improvements, and infrastructure upgrades is an essential part of their mission. Installation of the bifurcation structure will help better manage and operate their system and reduce and eliminate spills and fluctuations is of great importance. Better water stewardship and reliable deliveries will allow crop yields to increase and may offset the drought with diligent metering, measurements, and awareness.

*(b) Does this proposed project strengthen water supply sustainability to increase resilience to climate change?*

The proposed projects are all about water supply sustainability for the system and its water users. Being resilient to drought requires an ample irrigation supply and an efficiently operated system that provides adequate pressures and flows so that crops can be efficiently irrigated and uniformly watered. Without the project components for Cedarview and Monarch, there will be challenges in getting a consistent flow to water users.

*(c) Will the proposed project establish and utilize a renewable energy source?*

The proposed project will establish and maintain a small-scale solar system at each telemetry site and water turbine for Cedarview with the implementation of SCADA. The remote nature of these sites are very conducive to solar and water as renewable energy sources.

*(d) Will the project result in lower greenhouse gas emissions?*

The project will result in lower greenhouse gas emissions by reducing the time, travel, and equipment currently being spent chasing the problems of fluctuations in the system, losing water due to leakage, and other issues requiring a physical visit. Several water users and the river commission have expressed the need for these projects by observing the time and effort being expended because of the current setup.

***(2) Disadvantaged or Underserved Communities: E.O. 14008 and E.O. 13985 support environmental and economic justice by investing in underserved and disadvantaged communities and addressing the climate-related impacts to these communities, including impacts to public health, safety, and economic opportunities. Please describe how the project supports these Executive Orders, including:***

*(a) Does the proposed project directly serve and/or benefit a disadvantaged or historically underserved community? Benefits can include, but are not limited to, public health and safety through water quality improvements, new water supplies, new renewable energy sources, or economic growth opportunities.*

Several rural communities will also benefit from increased reliability and water delivery in the systems and directly from both Cedarview and Monarch canal efficiencies. Farmers and Ranchers who rely on

the water made available through the UWRC system are experiencing an economic downturn in the Uintah Basin. Currently, energy development and the Uintah Basin region are experiencing a severe economic downturn with a severe reduction in production and, therefore, revenues and funding for projects, businesses, and communities. Though not directly related in other areas of the country, this region is suffering from an economic drought that affects all parties as a drought for water would. At this point, many of the landowners, farmers, ranchers, and tribal members are experiencing economic challenges due to the downturn in the economy as a whole.

*(b) If the proposed project is providing benefits to a disadvantaged community, provide sufficient information to demonstrate that the community meets the disadvantaged community definition in Section 1015 of the Cooperative Watershed Act, which is defined as a community with an annual median household income that is less than 100 percent of the statewide annual median household income for the State, or the applicable state criteria for determining disadvantaged status.*

Duchesne County median household income is \$61,655 and the State of Utah is at \$74,197, which meets the disadvantaged community criteria.

*(c) If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985, which includes populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.*

The community includes Ute Tribal members and lands, which are a large water user of the Uinta River and also includes small, spread out communities of Monarch, Cedarview, and unincorporated Duchesne County areas as well as western Uintah County.

**(4) Tribal Benefits:** *The Department of the Interior is committed to strengthening tribal sovereignty and the fulfillment of Federal Tribal trust responsibilities. The President's memorandum "Tribal Consultation and Strengthening Nation-to-Nation Relationships" asserts the importance of honoring the Federal government's commitments to Tribal Nations. Please address the following, if applicable:*

*(a) Does the proposed project directly serve and/or benefit a Tribe? Will the project increase water supply sustainability for an Indian Tribe? Will the project provide renewable energy for an Indian Tribe?*

The Cedarview portion of the project lies within the Uinta River and structures and canals below this diversion benefit approximately 27,000 acres of irrigated land with Ute Tribe water rights. Approximately 65% of the water used and managed through the Uinta River goes to tribal water appropriations. This project will benefit the operation of the tribal canals and therefore allow them a more consistent supply to fill their duty needs and allow later appropriations water in a timely and accurate manner. The Ute Tribe and the Uintah & Ouray Indian Irrigation Project O&M Company is a very important player in the Uinta River drainage and duties of the UWRC in the funding and success of projects along the river system. The Cedarview and also the Monarch canals all provide tribal livestock water sources during grazing periods along the canals.

*(b) Does the proposed project directly support tribal resilience to climate change and drought impacts or provide other tribal benefits such as improved public health and safety through water quality improvements, new water supplies, or economic growth opportunities?*

As noted above, the Cedarview and the Monarch canals have most of their length through tribal land and provide tribal livestock water sources in grazing areas along the canals. Seepage from the canals often manifests itself in meadows and vegetation which benefit wildlife and agriculture on tribal land.

**(4) Other Benefits:** *Will the project address water and/or energy sustainability in other ways not described above? For example:*

*(a) Will the project assist States and water users in complying with interstate compacts?*

This project increases efficiency and improves water stewardship in the Uinta River (and Dry Gulch Creek, a tributary of the Duchesne River), which is a tributary of the Green River and Colorado River systems, which is currently one of the most critical interstate river systems for the Lower Colorado states. Increased water savings on this system allows more flows into an already critically low and stressed river system

*(b) Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others)?*

The two main sectors that this project benefits are agricultural and environmental. The agricultural community will benefit from steady flows being diverted from the Uinta River and Dry Gulch Creek. The Uinta River and its tributaries will benefit from this project by receiving more consistent flow.

*(c) Will the project benefit a larger initiative to address sustainability?*

The Colorado River water needs is an example of a larger initiative that this project is a small component of, being on drainages that contribute to the Green River. Any sustainability and water efficiencies gained in the upper basin will help the needs and shortages of the lower system.

*(d) Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?*

On the Monarch system, there are conflicts and even a pending lawsuit about water and water deliveries, with the proposed measurement flumes being a direct solution to provide fair and equitable measurement of flows for each user, along with meters for pipelines stemming from the canals and settling ponds. Tribal water rights on the Uinta River have also been a source of tension and strain and having accuracy and accountability in diversions will remove doubt and questions as to how much each entity diverted from the system. This project has great potential for reducing conflict and building trust.

#### EVALUATION CRITERION D: COMPLEMENTING ON-FARM IRRIGATION IMPROVEMENTS

*Up to **10 points** may be awarded for projects that describe in detail how they will **complement on-farm irrigation improvements** eligible for NRCS financial or technical assistance.*

*Note: Scoring under this criterion is based on an overall assessment of the extent to which the WaterSMART Grant project will complement ongoing or future on-farm improvements. Applicants should describe any proposal made to NRCS, or any plans to seek assistance from NRCS in the future, and how an NRCS-assisted activity would complement the WaterSMART Grant project. Financial assistance through the Environmental Quality Incentives Program (EQIP) is the most commonly used program by which NRCS helps producers implement improvements to irrigation systems, but NRCS does have additional technical or financial assistance programs that may be available. Applicants may receive maximum points under this criterion by providing the information described in the bullet points below. **Applicants are not required to have assurances of NRCS assistance by the application deadline to be awarded the maximum number of points under this sub-criterion.** Reclamation may contact applicants during the review process to gather additional information about pending applications for NRCS assistance if necessary.*

*Please note: on-farm improvements themselves are not eligible activities for funding under this NOFO. This criterion is intended to focus on how the WaterSMART Grant project will complement ongoing or future on-farm improvements. NRCS will have a separate application process for the on-farm components of selected projects that may be undertaken in the future, separate of the WaterSMART Grant project.*

*If the proposed project will complement an on-farm improvement eligible for NRCS assistance, please address the following:*



- 1) *Describe any planned or ongoing projects by farmers/ranchers that receive water from the applicant to improve on-farm efficiencies.*
  - a) *Provide a detailed description of the on-farm efficiency improvements.*
  - b) *Have the farmers requested technical or financial assistance from NRCS for the on-farm efficiency projects, or do they plan to in the future?*
  - c) *If available, provide documentation that the on-farm projects are eligible for NRCS assistance, that such assistance has or will be requested, and the number or percentage of farms that plan to participate in available NRCS programs.*
  - d) *Applicants should provide letters of intent from farmers/ranchers in the affected project areas.*

Monarch Canal serves several large water users and several smaller farms, which currently use flood irrigation from pipelines that could be upgraded to sprinklers as improvements are made in the system. Phase 1 of this project may not directly make the NRCS on-farm projects happen, but it will set the stage for some Phase 2 improvements such as piping the canal or doing a liner on the worst seepage areas such that pressure and/or flow delivered to the farms increase enough to provide more reliable deliveries. Having meters and flumes at key points and turnouts will also allow farmers to know the flow they are getting and plan crops around that. Cedarview Canal will have similar opportunities. Browns Draw Reservoir also has an important project being funded through WaterSMART that will tie the reservoir into the K2 Pipeline, providing additional pressures such that on-farm sprinkler systems are more attainable and reliable for the Class K2 area.

- 2) *Describe how the proposed WaterSMART project would complement any ongoing or planned on-farm improvement.*
  - a) *Will the proposed WaterSMART project directly facilitate the on-farm improvement? If so, how? For example, installation of a pressurized pipe through WaterSMART can help support efficient on-farm irrigation practices, such as drip irrigation. OR*
  - b) *Will the proposed WaterSMART Project complement the on-farm project by maximizing efficiency in the area? If so, how?*

On farm improvements, with some from NRCS have occurred on the Zager property and the Brown's farm, which are the two larger shareholders in the system for Monarch. Cedarview serves Class F, Class K2, and Class E in DGIC and there are many NRCS on-farm projects that have resulted from improvements in those systems, piping projects, and sprinkler conversions from flood irrigation, which this project directly improves.

- 3) *Describe the on-farm water conservation or water use efficiency benefits that are expected to result from any on-farm work.*

- a) *Estimate the potential on-farm water savings that could result in acre-feet per year. Include support or backup documentation for any calculations or assumptions.*

No specific on-farm estimates have been done at the time of this application, but there are expected benefits stemming from the Monarch and Cedarview canal efficiencies. On Farm improvements will primarily be from conversion from flood irrigation to sprinklers.

- 4) *Please provide a map of your water service area boundaries. If your project is selected for funding under this NOFO, this information will help NRCS identify the irrigated lands that may be approved for NRCS funding and technical assistance to complement funded WaterSMART projects.*

See map attached in Appendix C for Monarch and Cedarview service areas, which piggy back together through the Browns Draw Reservoir area and Yellowstone Feeder Canal.

*Note: On-farm water conservation improvements that complement the water delivery improvement projects selected through this NOFO may be considered for NRCS funding and technical assistance to the extent that such assistance is available. For more information, including application deadlines and a description of available funding, please contact your local NRCS office. See the NRCS website for office contact information, [www.nrcs.usda.gov/wps/portal/nrcs/main/national/contact/states/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/contact/states/).*

#### EVALUATION CRITERION E: PLANNING AND IMPLEMENTATION (8 POINTS)

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*Up to 8 points may be awarded for these subcriteria.*

##### 1.4.5.1 SUBCRITERION E.1 – PROJECT PLANNING

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*Points may be awarded for proposals with planning efforts that provide support for the proposed project.*

*(1) Does the applicant have a Water Conservation Plan and/or System Optimization Review (SOR) in place? Does the project address an adaptation strategy identified in a completed WaterSMART Basin Study? Please self-certify or provide copies of these plans where appropriate to verify that such a plan is in place. Including a specific excerpt or a link to the planning document may also be considered where appropriate.*

*Provide the following information regarding project planning:*

- (a) *Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, Drought Contingency Plan or other planning efforts done to determine the priority of this project in relation to other potential projects.*
- (b) *Describe how the project conforms to and meets the goals of any applicable planning efforts and identify any aspect of the project that implements a feature of an existing water plan(s).*
- (c) *If applicable, provide a detailed description of how a project is addressing an adaptation strategy specifically identified in a completed WaterSMART Basin Study or Water Management Options Pilot (e.g., a strategy to mitigate the impacts of water shortages resulting from climate change, drought, increased demands, or other causes)*

This project lies within the Colorado River Basin, which was recently studied by Reclamation with a Water Supply and Demand Study in 2012. This area within the Uintah Basin was identified as an area needing additional water savings to meet long term water needs. Collaboration with the DCWCD is also essential for the success of planning in the region. Duchesne County has also completed water planning studies that incorporate water supply from the Uinta River. Moon Lake Water Users Association is also an entity that collaborates with several of the companies involved in this project and has the following objectives pertaining to their water user's area:

- **Improve delivery time and reduce operation and maintenance.** By installing the proposed improvements and finding an alternative location for the diversion, annual maintenance activities will be greatly decreased. The Monarch and Cedarview canals have a history of maintenance needs and expenses and are some of the only canals that don't have telemetry yet in the overall basin.
- **Decrease water losses to producers.** The estimated water savings will be realized due to the reduction in over-deliveries, capture of 'bonus' flows due to diurnal fluctuation of the Uinta river channel, leakage past diversions due to inadequate facilities.
- **Reduce salinity in water to producers and other downstream users.** Reducing over-deliveries by automation and more accurate flow control and measurement will decrease salinity entering the Colorado River tributaries. The ground water and local soil conditions have a large amount of salt, which is carried with the water as it runs over land or seeps through groundwater, thus becoming a pollutant to the irrigated acres and the downstream users.

#### 1.4.5.2 SUBCRITERION E.2 – READINESS TO PROCEED

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*Points may be awarded based upon the extent to which the proposed project is capable of proceeding upon entering into a financial assistance agreement. Please*

*note, if your project is selected, responses provided in this section will be used to develop the scope of work that will be included in the financial assistance agreement.*

*Applications that include a detailed project implementation plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points under this criterion.*

*(a) Identify and provide a summary description of the major tasks necessary to complete the project. Note: please do not repeat the more detailed technical project description provided in Section 1.3; this section should focus on a summary of the major tasks to be accomplished as part of the project.*

Major tasks to complete the project have commenced in the planning and funding stages such as concept design and sizing of necessary gates, flumes, and meters. Next steps include surveys onsite, environmental clearances, final design, construction of project, installation of measurement and telemetry devices, commissioning of equipment and gates, and monitoring of performance of the new project components. See attached schedule in Appendix A.

*(b) Describe any permits that will be required, along with the process for obtaining such permits.*

The proposed projects have several key elements pertaining to environmental clearances and site design and analysis that are ready to proceed immediately once weather permits. The permits assumed to be required include cultural clearance through SHPO, biological assessment and surveys for potential Ute Ladies Tresses habitat, as well as surveys for actual plants in August-September. Additional wetlands and waters of the US determinations will be necessary as well as a Stream Alteration Permit from the State of Utah.

*(c) Identify and describe any engineering or design work performed specifically in support of the proposed project.*

Conceptual design for the cutthroat flumes on the Monarch Canal system has been completed to understand material and fabrication costs, as well as concept design and hydraulics for gates and the structures on the Cedarview Canal has been completed. Discussion on design criteria and needs of the UWRC have been incorporated into this application as well.

*(d) Describe any new policies or administrative actions required to implement the project.*

No new policies or actions would be required, the UWRC has a good system already in place, just needs improvements to be able to increase efficiency!

*(e) Please also include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Milestones may include, but are not limited to, the following: complete environmental and cultural compliance; mobilization; begin construction/installation; construction/installation (50% complete); and construction/installation (100% complete). Was the expected timeline for environmental and cultural compliance discussed with the local Reclamation Regional or Area Office?*

Project schedule is attached in Appendix A.

#### 1.4.6 EVALUATION CRITERION F: COLLABORATION (6 POINTS)

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*Up to **6 points** may be awarded for projects that promote and encourage collaboration among parties in a way that helps increase the sustainability of the water supply.*

*Please describe how the project promotes and encourages collaboration. Consider the following:*

*(a) Is there widespread support for the project? Please provide specific details regarding any support and/or partners involved in the project. What is the extent of their involvement in the process?*

MCRC met as a board and shareholders and have support of the majority of the shares and users, and are excited to make changes and improvements to increase efficiency, accuracy, and reduce conflicts. Cedarview Canal has support from multiple agencies and groups, including DGIC board, UWRC, and MLWUA board.

*(b) What is the significance of the collaboration/support?*

It is key for the success of the project, with a broad group supporting and the DCWCD supporting these individual companies and associations, it will solidify the process and help in obtaining funding together so that the projects can be affordable and successful. Without this support, the projects will likely not happen or just continue getting minor band-aides that aren't long term solutions.

*(c) will this project increase the possibility/likelihood of future water conservation improvements by other water users?*

This project collaboration will provide an example and pathway for future groups and projects to come together.

*(d) Please attach any relevant supporting documents (e.g., letters of support or memorandum of understanding).*

This project will be considered a huge success not only for its water managing improvements, but the partnering on water conservation and irrigation infrastructure between multiple entities and the private irrigation companies. The evidence of collaboration can be found in the variety of Letters of Commitment/support to the project as included in Appendix B.

Historically, there has been conflict in the actions of entities within the Uinta River drainages to supply water during irrigation season and storage seasons. This project will continue to improve working relationships and trust by providing an effective and operable diversion that will be included in the website showing real time data on the flow rates being diverted and passed down each channel. Currently both Monarch and Cedarview don't have information being shared, as there is no telemetry or flow measurement capability. Information in real time will prevent accusation and bad feelings between entities. Frequent tension is definitely felt with the present operations, especially in Monarch's case between neighbors. This project will allow the UWRC greater control and quicker response to eliminate or greatly minimize spills that are seen as waste by many water users and also capture the higher flows when available that otherwise get lost.

The future possibility of water conservation projects is very evident and has already commenced. The Cedarview structure is potentially the last of the DGIC/MLWUA structures that will be receiving Reclamation funding for telemetry and automation on the Uinta River.

#### 1.4.7 EVALUATION CRITERION G – ADDITIONAL NON-FEDERAL FUNDING (4 POINTS)

*Up to 4 points may be awarded to proposals that provide non-Federal funding in excess of 50 percent of the project costs. State the percentage of non-Federal funding provided using the following calculation:*

$$\frac{\text{Non-Federal Funding}}{\text{Total Project Cost}}$$

The percentage of Non-Federal to Federal Funding is 50% (\$385,000 out of \$770,00 total cost)

#### 1.4.8 EVALUATION CRITERION H – NEXUS TO RECLAMATION (4 POINTS)

*Up to 4 points may be awarded if the proposed project is connected to a Reclamation project or Reclamation activity. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.*

*Describe the nexus between the proposed project and a Reclamation project or Reclamation activity. Please consider the following:*

*(a) Does the applicant have a water service, repayment, or O&M contract with Reclamation?*

The proposed projects are contributing to this basin where Reclamation has been actively engaged. Both DCWCD and UWCD have Green River water shares that are stored in Flaming Gorge Dam as well as Starvation Reservoir water interests. DCWCD has had a long history working with Reclamation and appreciates the opportunity to do so again.

*(b) If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?*

DCWCD receives water in its Victory Pipeline through the Starvation Reservoir and Central Utah Water Conservancy District's treatment plant, as well as the Green River water mentioned above.

*(c) Will the proposed work benefit a Reclamation project area or activity?*

DCWCD has a current WaterSMART project with the Class K2 Improvement Project and Browns Draw Reservoir Outlet Modification that will directly benefit from improvements to the Cedarview Canal which delivers to the reservoir. The Uintah Water Conservancy District (UWCD) also has the Uinta River Bifurcation Structure project with Reclamation downstream from the Cedarview Diversion that will also receive benefits from the project.

*(d) Is the applicant a Tribe?*

DCWCD is not a tribe, however Tribal water is involved with the Uinta River group due to Moon Lake Exchange and other water sharing and water rights prioritization in the Basin. Accurate and efficient use of water from the Dry Gulch Creek and Uinta River sources will benefit the entire system, with the Ute Tribe utilizing approximately 65% of the river flows. Efficiency and elimination of water loss will indirectly benefit all water users and river systems.

## PERFORMANCE MEASURES

*Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved). For more information calculating performance measure, see Appendix A: Benefit Quantification and Performance Measure Guidance.*

***Note: program funding may be used to install necessary equipment to monitor progress. However, program funding may not be used to measure performance after project construction is complete (these costs are considered normal operation and maintenance costs and are the responsibility of the applicant).***

The performance measure for the Cedarview and Monarch Diversions will be the measurement of delivered water to the respective canals and the comparison to previous years of the amount being delivered to irrigators and through to Browns Draw Reservoir (as noted by Rainbow telemetry site) and the amount passing through the USGS gage near Randlett. Similar to the inflow/outflow method for estimating seepage losses in a canal, a comparison for operational losses will be possible comparing similar water years with data from the improved system. Fortunately, the available data for the major canal companies and the Uinta River has been recorded and logged in the database accessible online (<http://www.duchesneriver.org/>) and these project will also start showing data there once installed. The percentage of water diverted to the total supply will be evidence of the water savings staying in the river. A direct performance measure will also include the real time data being accessible on the Duchesne River and Tributaries website for the MCRC and Cedarview components of the project for all water users to access and observe flow rates.

Another formula that will deduce water savings is noted in the Performance Measures No. A.4:

Savings = (Spillage without project) – (Spillage with project).

A non-technical performance measure that is important to the DCWCD, UWRC and the associated irrigation companies is to have this project successfully built and funded together with the partners listed and working with the Ute Tribe for access and improvements on their lands. Success will be measured by the working relationship and successful completion of the project with all parties at the table participating in the design process, funding, and construction for the project.



## PROJECT BUDGET

### FUNDING PLAN AND LETTERS OF COMMITMENT

*Describe how the non-Federal share of project costs will be obtained. Reclamation will use this information in making a determination of financial capability.*

*Project funding provided by a source other than the applicant shall be supported with letters of commitment from these additional sources. This is a **mandatory requirement**. Letters of commitment shall identify the following elements:*

- The amount of funding commitment*
- The date the funds will be available to the applicant*
- Any time constraints on the availability of funds*
- Any other contingencies associated with the funding commitment*

*Commitment letters from third party funding sources should be submitted with your project application. If commitment letters are not available at the time of the application submission, please provide a timeline for submission of all commitment letters. Cost-share funding from sources outside the applicant's organization (e.g., loans or state grants), should be secured and available to the applicant prior to award.*

*Reclamation will not make funds available for an award under this FOA until the recipient has secured non-Federal cost share. Reclamation will execute a financial assistance agreement once non-Federal funding has been secured or Reclamation determines that there is sufficient evidence and likelihood that non-Federal funds will be available to the applicant subsequent to executing the agreement.*

*Please identify the sources of the non-Federal cost share contribution for the project, including:*

- Any monetary contributions by the applicant towards the cost-share requirement and source of funds (e.g., reserve account, tax revenue, and/or assessments)*
- Any costs that will be contributed by the applicant*
- Any third party in-kind costs (i.e., goods and services provided by a third party)*
- Any cash requested or received from other non-Federal entities.*
- Any pending funding requests (i.e. grants or loans) that have not yet been approved and explain how the project will be affected if such funding is denied.*

*In addition, please identify whether the budget proposal includes any project costs that have been or may be incurred prior to award. For each cost, describe:*

- *The project expenditure and amount*
- *The date of cost incurrence*
- *How the expenditure benefits the Project*

The total project cost is \$770,000. If the \$385,000 WaterSMART grant requested by this application is not approved, the project may not be further developed. It is assumed that DGIC will fund their portion of the project through savings in Class F, Class E and Class K2's accounts, however, a loan through the Utah Board of Water Resources may be sought. Additionally, the MLWUA will fund approximately half of the costs due to agreements between them and DGIC. Currently, funds are available without the need for a loan.

Monarch Canal has already been awarded a small Water Optimization Grant from the State of Utah for \$75,000, which is a non-federal source and will cover the other portion requested through shareholder assessments.

Project efforts prior to the award include minor conceptual engineering design to formulate the concept cost estimates, concept hydraulic design, and site visits for feasibility during the months of March 2022 and Summer 2022. This has helped formulate the project and receive supplemental funding. DCWCD will contribute administrative costs for the project and DGIC, MLWUA, and MCRC will provide the bulk of the non-federal cost share for engineering and construction.

## BUDGET PROPOSAL

*The total project cost (Total Project Cost), is the sum of all allowable items of costs, including all required cost sharing and voluntary committed cost sharing, including third-party contributions, that are necessary to complete the project.*

*Table 1. – Total Project Cost Table*

<b>SOURCE</b>	<b>AMOUNT</b>	<b>% of Total</b>
Costs to be reimbursed with the requested Federal Funding (WaterSMART)	\$385,000	50%
Costs to be paid by the applicant	\$310,000	40%
Value of third-party contributions (UDAF Water Optimization)	\$75,000	10%
<b>Total Project Costs</b>	<b>\$770,000</b>	<b>100%</b>

*The budget proposal should include detailed information on the categories listed below and must clearly identify **all** items of cost, including those that will be contributed as non-Federal cost share by the applicant (required and voluntary), third-party in-kind contributions, and those that will be covered using the funding requested from Reclamation, and any requested pre-award costs. Unit costs must be provided for all budget items including the cost of services or other work to be provided by consultants and contractors. Applicants are strongly encouraged to review the procurement standards for Federal awards found at 2 CFR §200.317 through §200.327 before developing their budget proposal.*

*If you have any questions regarding your budget proposal or eligible costs, please contact the grants management specialist identified in Section G. Agency Contacts.*

*It is also strongly advised that applicants use the budget proposal format shown in Table 2 or a similar format that provides this information. If selected for award, successful applicants must submit detailed supporting documentation for all budgeted costs. It is not necessary to include separate columns indicating which cost is being contributed as non-Federal cost share or which costs will be reimbursed with Federal funds.*

See attached cost estimate with breakdowns of each item of work and budget in Appendix A.

## BUDGET NARRATIVE

***Submission of a budget narrative is mandatory.*** An award will not be made to any applicant who fails to fully disclose this information. The budget narrative provides a discussion of, or explanation for, items included in Section B of the SF-424A. The types of information to describe in the narrative include, but are not limited to, those identified in the Budget Narrative spreadsheet for their budget narrative (see attachments to the opportunity). Costs, including valuation of third-party in-kind contributions, must comply with the applicable cost principles contained in 2 CFR §200.

## SALARIES AND WAGES

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*Indicate the Project Manager and other key personnel by name and title. The Project Manager must be an employee or board member of the applicant. Other personnel should be indicated by title alone. For all positions, indicate salaries and wages, estimated hours or percent of time, and rate of compensation. The labor rates must identify the direct labor rate separate from the fringe rate or fringe cost for each category. All labor estimates must be allocated to specific tasks as outlined in the applicant's technical project description. Labor rates and proposed hours shall be displayed for each task.*

*The budget proposal and narrative should include estimated hours for compliance with reporting requirements, including final project and evaluation. Please see Section F.3. Reporting Requirements and Distribution for information on types and frequency of reports required.*

*Generally, salaries of administrative and/or clerical personnel will be included as a portion of the stated indirect costs. If these salaries can be adequately documented as direct costs, they should be included in this section; however, a justification should be included in the budget narrative.*

See Contractual rates and title page for key personnel on the project. The salaries and/or reimbursements of DCWCD or other support staff are not included in this budget nor are they anticipated to be a part of it.

## FRINGE BENEFITS

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*Identify the rates/amounts, what costs are included in this category, and the basis of the rate computations. Federally approved rate agreements are acceptable for compliance with this item.*

All fringe benefits are fixed rates for billing through engineering and construction contracts.

## TRAVEL

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*Include the purpose of each anticipated trip, destination, number of persons traveling, length of stay, and all travel costs including airfare (basis for rate used), per diem, lodging, and miscellaneous travel expenses. For local travel, include mileage and rate of compensation.*

Travel costs will be part of the contracted portion of the project. It is likely that the scope of this project will utilize local consultants and contractors so that travel costs are minimal.

## EQUIPMENT

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*If equipment will be purchased, itemize all equipment valued at or greater than \$5,000. For each item, identify why it is needed for the completion of the Project and how the equipment was priced. Note: if the value is less than \$5,000, the item should be included under materials and supplies.*

*If equipment is being rented, specify the number of hours and the hourly rate. Local rental rates are only accepted for equipment actually being rented or leased.*

*If the applicant intends to use their own equipment for the purposes of the project, the proposed usage rates should fall within the equipment usage rates outlined by the United States Army Corps of Engineers (USACE) within their Construction Equipment Ownership and Operating Expense Schedule (EQ 1110-1-8) at [www.publications.usace.army.mil/USACE-Publications/Engineer-Pamphlets/u43545q/313131302D312D38](http://www.publications.usace.army.mil/USACE-Publications/Engineer-Pamphlets/u43545q/313131302D312D38).*

**Note: If the equipment will be furnished and installed under a construction contract, the equipment should be included in the construction contract cost estimate.**

Equipment will be part of the contracted portion of the project.

## MATERIAL AND SUPPLIES

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*Itemize supplies by major category, unit price, quantity, and purpose, such as whether the items are needed for office use, research, or construction. Identify how these costs were estimated (i.e., quotes, engineering estimates, or other methodology). **Note: If the materials/supplies will be furnished and installed under a contract, the equipment should be included in the construction contract cost estimate.***

Material and Supplies will be part of the contracted portion of the project.

## CONTRACTUAL

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*Identify all work that will be accomplished by consultants or contractors, including a breakdown of all tasks to be completed, and a detailed budget estimate of time, rates, supplies, and materials that will be required for each task. For each proposed contract, identify the procurement method that will be used to select the consultant or contractor and the basis for selection.*

An engineering consultant will be contracted, through the DCWCD procurement process to perform the design, environmental permitting tasks, and construction engineering for this project. JDE has assisted in the preparation of the application and a budgetary estimate of time and rates anticipated for the civil and construction engineering scope of the project. The consultant will prepare bid packages for the project. The environmental consultant will provide the appropriate permitting and surveys for the project, along with coordination with USFWS for ULT flower. The consultant team will monitor progress during construction to provide quality assurance with plans and specifications. The table below includes the design and construction engineering laborer classifications, billing rates, and estimated number of hours. See Appendix A for a breakdown of construction items and tasks, which will be utilized for bidding purposes for construction contractors, with a price-based selection for qualified contractors to perform the work.

Table 1. Civil Design & Construction Engineering Hours & Rates for Project

<b>Role/Position</b>	<b>Rate</b>	<b>Hours</b>	<b>Total</b>
Senior Project Manager	\$ 209.00	40	\$ 8,360.00
Project Engineer	\$ 164.00	60	\$ 9,840.00
Graduate Engineer	\$ 116.00	85	\$ 9,860.00
CAD Technician	\$ 95.00	120	\$ 11,400.00
Professional Land Surveyor	\$ 159.00	20	\$ 3,180.00
Survey Technician	\$ 113.00	30	\$ 3,390.00
Administrative Assistant	\$ 71.00	25	\$ 1,775.00
Construction Observation Technician	\$ 103.00	350	\$ 36,050.00
<b>Total</b>		<b>730</b>	<b>\$ 84,000.00</b>

## THIRD-PARTY IN-KIND CONTRIBUTIONS

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*Identify all work that will be accomplished by third-party contributors, including a breakdown of all tasks to be completed, and a detailed budget estimate of time, rates, supplies, and materials that will be required for each task. Third-party in-kind contributions, including contracts, must comply with all applicable administrative and cost principles criteria, established in 2 CFR Part 200, available at [www.ecfr.gov](http://www.ecfr.gov), and all other requirements of this NOFO.*

The MCRC received funding assistance from the Utah Department of Ag and Food (UDAF) for a Water Optimization Grant for \$75,000 towards the scope of their project, and just recently received that award with an agreement pending. There are not any tasks or supplies/materials, etc. that are being brought to the table from them, just the funding assistance.

#### ENVIRONMENTAL AND REGULATORY COMPLIANCE COSTS

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*Prior to awarding financial assistance, Reclamation must first ensure compliance with Federal environmental and cultural resources laws and other regulations (“environmental compliance”). Every project funded under this program will have environmental compliance activities undertaken by Reclamation and the recipient. Depending on the potential impacts of the project, Reclamation may be able to complete its compliance activities without additional cost to the recipient. Where environmental or cultural resources compliance requires significant participation by Reclamation, costs incurred by Reclamation will be added as a line item to the budget during development of the financial assistance agreement and cost shared accordingly (i.e., withheld from the Federal award amount). Any costs to the recipient associated with compliance will be identified during the process of developing a final project budget for inclusion in the financial assistance agreement.*

Environmental costs are estimated and have a total of \$22,000 in the budget, it is also understood that Reclamation may require a portion of the grant funds to work through NEPA.

#### OTHER EXPENSES

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*Any other expenses not included in the above categories shall be listed in this category, along with a description of the item and why it is necessary. No profit or fee will be allowed.*

None anticipated

#### INDIRECT COSTS

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*Indirect costs are costs incurred by the applicant for a common or joint purpose that benefit more than one activity of the organization and are not readily assignable to the activities specifically benefitted without undue effort. Costs that are normally treated as indirect costs include, but are not limited to, administrative salaries and fringe benefits associated with overall financial and organizational administration, operation and maintenance costs for facilities and equipment, and payroll and procurement services. If indirect costs will be incurred, identify the proposed rate, cost base, and proposed amount for allowable indirect costs based on the applicable cost principles for the*

*applicant's organization. It is not acceptable to simply incorporate indirect rates within other direct cost line items.*

*Any non-Federal entity that does not have a current negotiated (including provisional) rate, except for those non-Federal entities described in appendix VII to 2 CFR §200, paragraph D.1., may elect to charge a *de minimis* rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. For further information on MTDC, refer to 2 CFR §200.68 available at [www.ecfr.gov](http://www.ecfr.gov).*

*If the applicant does not have a federally approved indirect cost rate agreement and is proposing a rate greater than the *de minimis* 10 percent rate, include the computational basis for the indirect expense pool and corresponding allocation base for each rate. Information on "Preparing and Submitting Indirect Cost Proposals" is available from the Department's Interior Business Center, Office of Indirect Cost Services, at [www.doi.gov/ibc/services/finance/indirect-cost-services](http://www.doi.gov/ibc/services/finance/indirect-cost-services).*

Not included.

## REQUIRED PERMITS OR APPROVALS

*Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.*

*Note that the improvements to Federal facilities that implemented through any project awarded funding through this NOFO must comply with additional requirements. The Federal government will continue to hold title to the federal facility and any improvement that is integral to the existing operations of that facility. Please see P.L. 111-11, Section 9504(a)(3)(D). Reclamation may also require additional reviews and approvals prior to award to ensure that any necessary easements, land use authorizations, or special permits can be approved consistent with the requirements of 43 CFR Section §429, and that the development will not impact or impair project operations or efficiency.*

Permits anticipated for the diversion and flume structures include a Ute Ladies Tresses (ULT) endangered flower survey, which could lead to a Biological Opinion from the US Fish & Wildlife Service for the ULT, in response to the final design and impact areas to ULT habitat and individuals if present. A stream alteration permit and potential Army Corp permit is also anticipated to some degree, with the critical path item being the ULT. Some of the elevations may rule out that requirement. A cultural resource survey and a 401 Certification is also anticipated.

Tribal lands will require the contractors to have an access permit and UTERO for work on Ute Tribe Lands. The MLWUA, DGIC, UWRC and others have their own access permits and prescriptive and sometimes descriptive (Monarch Canal) easements for their canals and structures to do work and improvements on them. This is not anticipated to be a hurdle for access during construction.



## LETTERS OF SUPPORT AND LETTERS OF PARTNERSHIP

*Please include letters from interested stakeholders supporting the proposed project. To ensure your proposal is accurately reviewed, please attach all letters of support/partnership letters as an appendix. Letters of support received after the application deadline for this NOFO will not be considered in the evaluation of the proposed project.*

*Category B applicants must include a letter from the Category A partner, stating that they are acting in partnership with the applicant and agree to the submittal and content of the proposal (see Section C.1. Eligible Applicants). Letters of Partnership must be received by the application deadline for this NOFO—otherwise the applicant will be considered ineligible, and the proposed project will not be evaluated.*

Since the applicant is DCWCD as a Category A, with individual companies routing funding for reimbursement through them, it is anticipated that DCWCD will directly contract with the BOR for the project and will continue to coordinate and share costs with those entities involved. See Appendix B for letters of commitment and support.

## OFFICIAL RESOLUTIONS

*Include an official resolution adopted by the applicant's board of directors or governing body, or, for State government entities, an official authorized to commit the applicant to the financial and legal obligations associated with receipt of a financial assistance award under this NOFO, verifying:*

- *The identity of the official with legal authority to enter into an agreement*
- *The board of directors, governing body, or appropriate official who has reviewed and supports the application submitted*
- *The capability of the applicant to provide the amount of funding and/or in-kind contributions specified in the funding plan*
- *That the applicant will work with Reclamation to meet established deadlines for entering into a grant or cooperative agreement*

***An official resolution meeting the requirements set forth above is mandatory. If the applicant is unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution may be submitted to [bor-sha-fafoa@usbr.gov](mailto:bor-sha-fafoa@usbr.gov) up to 30 days after the application deadline.***

The DCWCD meets on a monthly basis, with their next meeting to be held on August 8<sup>th</sup> 2022 and since they cancelled their July meeting, it is anticipated that the Official Resolution will be reviewed and signed at the August meeting. A copy will promptly be sent on as directed within 30 days of application.

APPENDIX B. LETTERS OF SUPPORT & FUNDING COMMITMENT



## DUCHEсне COUNTY WATER CONSERVANCY DISTRICT

275 West 800 South  
Roosevelt, Utah 84066

**General Manager:** Clyde Watkins  
**Admin. Assist:** Carrie Lynn Shiner

**Board Members:**

Keith Hooper – Board Chairman  
Kevin Rowley – Vice Chairman  
Rodger Ames - Member  
Kelly Crozier – Member

Office: (435) 722-4977

Cellular: (801) 360-0312

Email: [clydedcwcd@stratanet.com](mailto:clydedcwcd@stratanet.com)

Email: [carriedcwcd@stratanet.com](mailto:carriedcwcd@stratanet.com)

Don Richards - Member  
Connie Sweat - Member  
Dex Winterton - Member

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April 13, 2022

Riley Brown, President  
Monarch Canal & Reservoir Company  
Route 1 Box 181  
Roosevelt Utah 84066

**RE: Monarch Canal & Reservoir Company – Letter of Support from DCWCD**

Mr. Brown:

The Duchesne County Water Conservancy District is submitting this letter to show support for the proposed Monarch Canal & Reservoir Company project being submitted for funding assistance. This first step to install flow measurement structures is an important part of our stewardship as water users and the DCWCD supports this endeavor. We understand there are two potential sources for funding this project, one through the Utah Department of Ag and Food Water Optimization Grant and the other through the Bureau of Reclamation's WaterSMART Grant opportunities. As a water entity in Duchesne County, the DCWCD board supports Monarch in obtaining favorable funding arrangements and will assist in preparing and recommending these applications for funding through these agencies. We understand your funds are limited and would be best utilized in putting improvements into the ground.

We appreciate the opportunity to partner with you and the possible funding assistance from the Water Optimization and WaterSMART grant. Please contact us with further updates and any other required information. We look forward to hearing about the results of the grant application.

Sincerely,

Clyde Watkins  
General Manager  
Duchesne County Water Conservancy District

*Dry Gulch Irrigation Company - Established 1905*  
"Quality People, Providing Quality Water and Service through Quality Delivery Systems"



263 East Lagoon Street - PO Box 265 - Roosevelt, Utah 84066 - 435-722-2204 [drygulch@ubtanet.com](mailto:drygulch@ubtanet.com)

**Directors:** "A" Junior Tidwell "B" Rodger Ames "C" Jason Riley "D" Mark Winterton  
"E" Mark Kettle "F" Wayne Malnar "K2" Rod Olsen

**Secretary:** Bonnie L Dehart

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July 28, 2022

Bureau of Reclamation  
Denver, CO  
FOA R23AS00008

**RE: Cedarview Canal Improvement Project – Letter of Commitment, Dry Gulch Irrigation Co.**

Grant Application Review Committee:


The Dry Gulch Irrigation Company is submitting this letter to show support and cost-share funding commitment for the proposed Cedarview Canal Improvement Project being submitted for funding assistance by the Duchesne Water Conservancy District through the Bureau of Reclamation's WaterSMART Grant opportunity.

Funds will be secured through a combination of Class F, Class E, Class K2/Dry Gulch savings, Moon Lake Water Users Association cost share, a potential State Water Optimization grant, and, if necessary, a loan from the State of Utah Board of Water Resources to provide the full non-Federal cost-share amounts listed in the budget plan for the project. Funds will be secured to be available by the time the Reclamation agreement is ready for acceptance by May 31, 2023. There are no other time-constraints or contingencies for this commitment of funding.

This project will provide a greater level of flow control and reliability from the diversion on the Uinta River as well as the structure splitting flows from the Yellowstone Feeder Canal and the Cedarview Canal. These improvements will meet the requirements for the new River Commissioner to have the operational ability to quickly and accurately divert and adjust headgates at the Uinta River. This project has become a very high priority for the Class F system and water users who experience loss of water, and inefficient and inconsistent deliveries in the Cedarview Canal service area.

We appreciate the opportunity to partner with Duchesne County Water Conservancy District, Moon Lake Water Users and Dry Gulch Classes E, F, and K2 sharing in the project as well as the possible funding assistance from the WaterSMART grant. Please contact us with further updates and any other required information. We look forward to hearing about the results of the grant application.

Sincerely,

  
Rodger Ames  
President  
Dry Gulch Irrigation Company



# MOON LAKE WATER USERS ASSOCIATION

P.O. Box 235  
263 East Lagoon Street  
Roosevelt, Utah 84066  
Office: 435-722-2002 Fax: 435-722-2241

**Manager:**  
Dex Winterton  
Mobile: 435-823-4174

July 28, 2022

Bureau of Reclamation  
Denver, CO  
FOA R23AS00008

## RE: Cedarview Canal/Diversion Improvement Project

Grant Application Review Committee:

The Moon Lake Water Users Association (MLWUA) is submitting this letter of commitment to show support and cost-share funding commitment for the Cedarview diversion structure and Yellowstone-Cedarview Canal control structure modifications for the proposed project being submitted for funding assistance by the Duchesne Water Conservancy District through the Bureau of Reclamation's WaterSMART Grant opportunity.

Funds will be allocated from MLWUA savings to provide a portion of the Class F responsibility for the non-Federal cost-share amounts listed in the budget plan for the project. Depending on other budget needs, a loan may be secured from the State of Utah Board of Water Resources in time for meeting the requirements. There are no time-constraints or contingencies for this commitment of funding.

MLWUA owns and operates the Browns Draw Reservoir and Yellowstone Feeder Canal, working closely with Dry Gulch Irrigation to deliver water in the Class F area as well as other classes like the K2 and Class E systems. This project will greatly improve the ability for river diversions to be coordinated with other water users, with a reliable flow measurement component and adjustable gates to capture higher flows and adjust for steady deliveries. The control structure at the Cedarview-Yellowstone intersection will also improve accuracy and reliability for flows to be sent to water users calling for irrigation water in this area of the Uintah Basin.

We appreciate the opportunity to partner with the Duchesne County Water Conservancy District and Dry Gulch Class K2 and Class E sharing in the project as well as the possible funding assistance from the WaterSMART grant. Please consider this application for funding, as it will benefit multiple entities and increase water savings and use efficiencies.

Sincerely,

Kirk Christensen  
President  
Moon Lake Water Users Association

July 28, 2022

Bureau of Reclamation  
Denver, CO  
FOA R23AS00008

**Monarch Canal Efficiency Project Phase I – Support & Commitment Letter**

To whom it may concern:

The Monarch Canal & Reservoir Company is submitting this commitment letter back up the WaterSMART funding application that the Duchesne Water Conservancy District is assisting us with for improvements to the diversion structure for the Monarch Canal and associated flow measurement devices and meters to increase the accuracy of flow deliveries to our system and water users.

Funds for the cost-share from Monarch will be coming from a successful State Water Optimization grant in the amount of \$75,000 as well as in-kind work for fabrication and installation of the cutthroat flumes. Funds will available on or before May 31, 2023 for this funding's needs. There are no other time-constraints or contingencies for this commitment of funding.

This project will provide a greater level of flow control and reliability from the diversion on the Dry Gulch Creek. The flumes will greatly reduce water conflict between several users with accurate flow measurement that will mitigate over deliveries and increase accountability. Our canal suffers great losses, especially during summer months and drought. If we try to send down our storage water in Heller Lake and the ditch is dry, there is a very high percentage of flow lost in seepage trying to make it to our shareholders. This project has become a very high priority for our shareholders and will help us move towards future phases of improvements to make efficient and consistent irrigation flow delivery.

Thank you for the opportunity to partner with Duchesne County Water Conservancy District in applying for this grant funding. Please reach out if additional information is required.

Sincerely,



Riley Brown  
President, Monarch Canal & Reservoir Company



07/26/2022

Riley Brown,  
R1 Box 1381,  
Roosevelt, Utah 84066

Dear Riley Brown,

Thank you for submitting your proposal for the Monarch Canal Efficiency Project- Phase I. The Department is pleased to inform you that it anticipates awarding \$75,000.00 dollars for implementation of the Monarch Canal Efficiency Project- Phase I described in your FY22 ARPA application submitted to the Utah Department of Agriculture and Food, requesting a grant from the Water Optimization program.

Currently UDAFA is working on a grant agreement to meet the needs of this project. We plan to present that agreement to you on or before August 15, 2022 for your review and approval. *Award of these monies is contingent upon Monarch Canal & Reservoir Company agreeing to the terms and conditions outlined in that grant agreement.* Please note that the terms and conditions include, but are not limited to, all statutory requirements under UCA §4-17-114 and UCA 4-17-115. In addition, Monarch Canal & Reservoir Company must verify that it, its officers, agents, employees, contractors, sub-contractors and assigns are in full compliance with the State of Utah's cultural resource laws. A copy of those requirements is attached to this letter as Attachment A (Additional Terms and Conditions).

In addition, please be aware that as an awardee of grant monies, you may be subject to the auditing and other requirements outlined in UCA 51-2a-101 *et seq.*

Please be reminded that until the grant agreement is signed and dated by the parties, this grant award amount may be modified or reduced. Please also be reminded that this grant



award may be modified or reduced based on the availability of grant funds under Resource Conservation SPAA, HB 5 Item 9, SB 3 Item 98. As such, until the grant agreement is finalized, there is no binding obligation to the State of Utah or any of its departments or divisions to provide any funds for this project: if Monarch Canal & Reservoir Company, its officers, agents, employees, contractors, sub-contractors or assigns choose to begin work on this project or expend monies prior to the grant agreement being finalized, such monies may not be reimbursed by the State of Utah or UDAF.

We look forward to working with you to put this important Water Optimization project in place. If you have any questions about the grant agreement, please contact Jay Olsen at 801-718-0517, [jayolsen@utah.gov](mailto:jayolsen@utah.gov) or Benjamin Hudson, northern Utah Planner at 385-226-7808, [bhudson@utah.gov](mailto:bhudson@utah.gov), or Kendra Young, southern Utah planner at 385-228-8258, [kendrayoung@utah.gov](mailto:kendrayoung@utah.gov)

Sincerely,

James D. Bowcutt, Director-Conservation  
Utah Department of Agriculture and Food