

NORTH FORK FARMERS DITCH DIVERSION IMPROVEMENT

Notice of Funding Opportunity R23AS00089



**Western Slope Conservation Center
204 Poplar Avenue, P. O. Box 1612
Paonia, CO 81428**

March 28, 2023

**Project Manager: Tanya Henderson
Phone: 970-527-5807
Director@theconservation.org**

Grants.gov explanation

The Western Slope Conservation Center made every attempt to register with grants.gov for submission of its WaterSMART Environmental Water Resource's grant application. Difficulties were encountered when attempting to establish a workspace. The help desk was consulted. After numerous attempts, the decision was made to take advantage of the option to deliver the application and not submit through grants.gov. The Center appreciates that option provided by the Bureau of Reclamation, and understands the mail or hand deliver option will, most likely, not be available in the future. Our personnel will work through the grants.gov process and complete registration as soon as possible following submission of its Environmental Water Resource's grant application. The Center's Grants.gov registration became inactive during pandemic.

TABLE OF CONTENTS

	Page
SF-424 - Cover Page	1
SF-424B - Assurances	4
SF-424C -Budget Construction	7
Technical Proposal	8
Budget Proposal	33
Recommended Elements	37
Appendix	39

TECHNICAL PROPOSAL

Date - March 28, 2023

Name - Western Slope Conservation Center

Paonia, Delta County, Colorado

Executive Summary:

The Western Slope Conservation Center (Center), in partnership with North Fork Farmer's Ditch Association, located in west central Colorado, will modernize the Farmers ditch diversion and headgate structures to improve water delivery and efficiency while maximizing instream flows on the north fork of the Gunnison River to improve passage for four endangered and threatened species of fish. Negative impacts of climate change continue to plague the Western Slope considered to be the largest 2C hot spot in the lower 48 United States. Project construction, supported by the Center's Cooperative Watershed Management Plan, has also been endorsed by numerous conservation groups, government agencies, and water users.

- Project period: September 30, 2023 to April 30, 2026.
- Project implementation will not occur on federal land nor involve a federal facility.

Project Location

The north fork of Farmers Ditch is located approximately two miles northeast of the Town of Paonia on the North Fork of the Gunnison River at a point where the river parallels Colorado State Highway 133. Located at 38 .8971382 N latitude and -107 .569051 W longitude in west central Colorado, the river's north fork flows through northwestern Gunnison and eastern Delta Counties. It is formed by the confluence of Muddy Creek and Anthracite Creek downstream of the Paonia Reservoir Dam. Gunnison River is one of the largest tributaries to the Colorado River (Map 1).

Over 90 percent of riverfront property in the North Fork Watershed is privately owned. Of the more than 1,000 parcels adjoining the river, 35 percent are classified as agricultural. Other water uses in the watershed include extractive industries, tourism, and outdoor recreation.



Map 1: North Fork Farmer's Ditch Diversion

Technical Project Description

Completion of the proposed project will modernize the Farmers ditch diversion and headgate structures, and result in infrastructure improvements to benefit ecological values. It will improve water delivery and efficiency, maximize instream flows, support ecosystem resilience and allow for upstream fish passage and safe recreational boating.

GEI Consultants will complete 60 percent of project engineering on or before September 2023, or by the time of a Bureau of Reclamation (Bureau) award. Work will occur in two stages with deliverables to include a technical design memo sufficient to support project permitting (federal requirements/clearances). Stages are bathymetric investigation, hydrology, hydraulics and CAD; and engineering design.

Bathymetric investigation, hydrology, hydraulics and CAD investigations will support base mapping and analysis of existing conditions in the reach surrounding the diversion improvement project. These efforts will also be used to develop a hydraulic model that will provide data on existing channel hydraulics and be used to accomplish a stage two

task to evaluate and refine project alternatives. A hydrological model of the river at various high and low flows will ensure no rise in the 100-year water surface elevation at flood events and sufficient water is pooled near the headgate of the ditch during low water events.

Deliverables to accomplish *Engineering design* to 60 percent completion include a design level plan set, cost estimate; and a design technical memo summarizing results and assumptions with a process for final engineering and implementation. During this stage, GEI Consultants will also develop and evaluate project alternatives, and communicate results with project stakeholders,

Diversion improvements, funded with support from the Bureau and matched with local grants, will be accomplished in three phases: (1) final engineering, construction plans and permitting (federal requirements/clearances), (2) construction and (3) project monitoring.

Final engineering, construction plans and permitting - GEI Consultants will complete final engineering and provide a construction-ready plan set. Final engineering will be concurrent with permitting and federal clearances during the first eight months of the project period.

Permitting requirements include clearances under the Natural Environmental Policy Act. (NEPA), National Historic Preservation Act, Clean Water Act, and, potentially, Endangered Species Act (ESA). No ground disturbing activities will occur until all clearances are received. The Center has secured access to the private land through its partnership with the North Fork Fall River's Ditch Association. More detailed information on permitting requirements is included Evaluation Criterion D: Readiness to Proceed.

Construction - The existing diversion dam is a 12' wide 100' long wooden structure built on an undetermined foundation of concrete and boulders and covered with rubber conveyor belting. There is an 18" concrete lip along the upstream side of the structure designed to insert vertical steel pipes for the placement of 12" wide boards during low water. Boards allow the ditch company to sweep the river and divert the whole river into the ditch, drying up over ¼ mile of the river downstream. They are installed after the runoff season when flows drop to a level that prohibits a full decree of water into the ditch and are removed following the irrigation season in late October. While the darn structure is 100' long, the low flow channel is only about half of that length. An existing level diversion dam allows the width of the river to spread out over a long distance and become very shallow thus requiring drop boards to create a pool deep enough to divert enough water.



The river is diverted to the ditch through a leaky concrete headgate structure. Water in the ditch travels approximately 1,600 feet downstream where a minimum of 10 cfs is

required to be turned back into the river to supply the Paonia Ditch downstream. Currently, the concrete spillback weir structure is crumbling, and water runs under and around it in places. In order for the water commissioner to administer this water right, they must park their truck on the highway, climb down a steep embankment, adjust the turnout valve, climb back up the hill and drive over to the next ditch downstream and measure the water. If there is insufficient water, they must drive back to the Farmers Ditch turnout and repeat the entire process.

Construction of the proposed project will result in the installation and automation of an actuator on the reconstructed headgate for the Farmers Ditch, an actuator on the existing turnback gate, and a radar to monitor flow rates at the Parshall Flume. The system will also include a station at the ditch's headgate with a datalogger, cellular modem and LCD display, a station at the turnhack gate with a GATER control box, and radios at both stations to relay data and control signals from the turnback gate and flume to the datalogger. Improvements will support remote monitoring and control of the headgate, turnback gate, and flow rate at the flume. They will allow the ditch company and the water commissioner to monitor and control flows into the ditch from a remote location, substantially improving efficiency and keeping excess water in the river for in-stream flow improvements. Additionally, the water commissioner will save hours of time and several miles a day in their truck working to administer this water right.

The ditch is very hard to clean; there is no ditch maintenance road from the diversion to the turnout and no place to build one with a cliff on one side of the ditch and the river on the other. Beavers regularly dam up the ditch between the diversion and the turnout structure. All maintenance is done by hand. Project implementation will result in the piping of 1,600 feet of the ditch with 48-inch pipe, from below the headgate at the river to the existing turnout structure, and rebuild the turnout structure eliminating substantial ditch and structure leakage, as well as reduce maintenance requirements. Piping will start approximately 30 feet down the ditch from the end of the existing headgate and will be secured with a concrete headwall at both ends and trash rack at the pipe inlet. Another trash rack with a floating boom will be installed at the inlet to the existing headgate structure.

Project construction will return the river to its natural width and depth as measured both upstream and downstream of the existing structure and reconnect a reach of the river for multiple other uses. Narrowing the channel while maintaining the floodplain and increasing the depth of the water going over the dam during low flows would be accomplished by constructing a point bar along river left that would replicate the natural morphology of the river channel and push more water to the diversion point on river right. The low flow channel naturally wants to bend toward the diversion headgate on the right, but the perpendicular alignment of the existing level dam structure spreads the water out evenly over 100 feet in a channel that is about 50 feet wide.

Building a point bar over the left half of the diversion structure works with existing river dynamics. Creating a cobble and gravel point bar on the left will prevent the flow from

spreading out across the length of the dam and deepen the water nearer to the diversion during low flows, but allow the river to activate the floodplain during flood events. Average rock size used to build this point bar would depend on its location relative to the existing dam. Slow water above the dam will require a rock size similar to the cobble rock size that is naturally there now, averaging 6 to 15 inches in diameter and ranging from gravel to 24-inch diameter boulders. It is estimated that approximately 234 cubic yards of rock will be needed for the point bar fill on and above the dam.

There is a 5-to-6-foot vertical drop below the dam that currently has several random basalt boulders below. Infrastructure improvements will keep boulders in place and supplement with additional 3-to 5-inch diameter local basalt boulders along the length of the dam. Void spaces will be filled with smaller boulders along with native cobble and gravel. Runout from the dam will extend for approximately 200 feet downstream creating a grade of 1.6 percent, mimicking the grade of a natural riffle in this river system. The runout will be constructed to replicate the natural morphology of the river with small pools and drops throughout the runout to promote upstream fish passage and allow for safe recreational boating. It will not be a smooth and steady run, but instead a rough, natural looking riffle with occasional large boulders extending 1-to-2 feet above the average grade. Required runout fill below the dam is estimated at 2,200 cubic yards of well-graded local basalt material.

The ability for the Farmers Ditch Association to use its senior water right and make a call on the river during low flows is dependent upon its ability to sweep the river, as stipulated in Colorado water law. Currently, the ditch company drops 12-inch-wide boards on top of the diversion structure in order to make a call on the river. Once boards are in place, they cannot be removed until the irrigation season concludes even if flow rates in the river increase. This situation often results in more water going down the ditch than needed short-circuiting a $\frac{1}{4}$ mile of the river between the headgate and the turnout structure. Installation of a 30-foot long and 3-foot-high Obermeyer gate on the right side of the existing dam structure near the headgate will reconnect flow in the river.

Obermeyer pneumatically operated spillway gates are well suited for use as water diversion structures in rivers and streams. They sit flat on the bottom of the water channel and rise upwards when needing to pool water by inflating a rubber bladder with compressed air. During times of low water events the gate rises and performs the same function as the existing drop boards allowing the ditch company to sweep the river and make a call without installing drop boards. Precise level and flow control provided by the Obermeyer Gate system facilitates controlled water diversion without fluctuations in diverted flow caused by flow changes. The gate is controlled with a flow measuring device to ensure a full decree of water is diverted, and automatically lowers when river flows increase. It can be manually or automatically controlled from a control house located on higher ground away from the river and alongside the existing access road. Electricity will be connected from power lines in proximity to the highway.

Obermeyer spillway gates are successfully used in extremely cold climates. The flexible gate panel support provided by the air bladders allows passage of large sheets of ice. The

spillway gates have successfully been used in several Bureau of Reclamation projects including the Santa Margarita River O'Neill Diversion Dam Roughened Channel Fishway (Hydraulic Laboratory Technical Memorandum PAP-1083) and the Sequim Prairie-Tri Irrigation Association Irrigation Efficiencies and Improvement Project in Port Angeles, WA funded by a EWRP grant December 2021.

This is an infrastructure project subject to provisions in the Buy America Domestic Procurement Preference Section 70914 of the BIL, P.L. 117-58. All articles, materials, and supplies that are consumed in; incorporated into, or affixed to the infrastructure will be purchased in compliance with the Buy America directive. A project construction contractor will be identified through a competitive bid process. Buy America requirements will be explained and included in the bid package. The successful bidder, in their bid response, -will be required to demonstrate that procurement to accomplish construction will comply with Buy America.

Construction will require about six months. Stages include site preparation, improvements to the diversion structure, fish and boat passage, and ditch pipe. Elements of each stage are itemized in Table I. A construction schedule accommodates the April to October growing season Oversight and a contingency are included in the project budget.

Table 1: Construction

Site Preparation
Mobilization
Erosion control
Cleaning & grubbing
Water control (river diversion and dewatering for structure construction)
Demo existing structures (headgate, turnout and partial diversion dam)
Diversion Structure
Structural concrete (headgate structure. wing walls)
Structural concrete (turnout and pipe headwall structures)
Point bar over and above existing diversion structure (30" rock void-filled)
Obermeyer Gate and controls (including install) 3' height
Automated Sluice Gate at headgate & turnout & datalogger@., flume
Trash Rack and floating boom
Electricity and materials testing
Fish and Boating Passage
Runout fill below darn (36" to 60" basalt boulders void filled w/cobble & gravel)
Revegetation (Cottonwoods/Willows along streambanks & ditch banks)
Revegetation (seeding)
Ditch Pipin2
48" HOPE pipe installed
Concrete headwalls
Pipe bedding
Pipe backfill
Replace measuring flume

Monitoring - Monitoring will be conducted for six months following completion of construction. It will be followed by five years of additional monitoring according to a plan provided as a deliverable in the Center's Final Project Report submitted to the Bureau. Detailed monitoring information is included under Evaluation Criterion E: Performance Measures.

Applicant Category and Eligibility of Applicant

The Western Slope Conservation Center, in existence for over 45 years, is a Category B non-profit conservation organization with a mission to build an informed and engaged community to protect and enhance the lands, air, water and wildlife of the Western Slope. It is applying in partnership with North Fork Farmers Ditch Association, a Category A applicant with water delivery authority. Farmers Ditch decree dates back to 1890 and serves 97 shareholders who irrigate over 1,000 acres of premium valley floor farmland. Crops include hay, corn, pasture, apples, peaches, cherries, and grapes. It is one of the oldest irrigation diversions along the North Fork of the Gunnison River and represents some of the most senior water rights in the North Fork system. The North Fork Farmers Ditch Association is providing financial support for this project with \$20,000 in cash to assist with engineering costs; the board is providing \$1,200 in-kind to support meeting coordination. *(A partnership letter/ram the North Fork Farmers Ditch Association is included in the Appendix.)*

Evaluation Criteria

Evaluation Criterion A: Project Benefits

General Project Benefits - Project construction will improve water delivery and efficiency for agriculture use, while maximizing instream flows by maintaining excess water in the river and improving ecosystem resilience to allow for upstream fish passage and safe recreational boating.

Currently, the diversion structure spans the river perpendicular to the flow and creates a steep and dangerous drop on the downstream side. Random large boulders 4-to-5 feet in diameter are staged below the structure. Most rocks smaller than three feet in diameter have washed downstream leaving large voids and dangerous hydraulics during high water creating a dangerous situation for recreational boating, a substantial impediment to fish passage and disconnects the ecological integrity of the aquatic habitat. Several loads of large sandstone boulders were dumped below the structure in recent years, but the high velocity of the river combined has eroded the soft sandstone in a relatively short time, leaving only large basalt boulders in place.

Environmental and recreational benefits of reconnecting rivers and increasing instream flows are substantial and well documented. Fish will have the ability to navigate this structure and continue upstream and recreational boats could

continue downstream in a range of flows. Aquatic and riparian habitats will have the ability to recover in the area between the diversion and the turnout structure ¼ mile downstream. Additional willow planting will be installed along the banks of the reconnected reach of the river to assist with re-establishment of native habitats.

Altered flows that have resulted from a long history of water development have had consequences for the ecological integrity, and resilience, of this freshwater ecosystem. Ecological integrity is defined as 'the ability of an ecosystem to support and maintain ecological processes and a diverse community of native organisms.' Often measured as the degree to which a diverse community of native organisms is maintained, ecological integrity can be used as a proxy for ecosystem resilience. Ecosystem resilience is the ability of an ecosystem to retain essential processes and support native diversity in the face of disturbances or shifts in conditions (Gunderson, 2000). Resilient stream systems are those that will support a full spectrum of biodiversity and maintain functional integrity even as species compositions and hydrologic properties change in response to shifts in conditions (Anderson et al., 2013). Recent research suggests that the resilience of freshwater systems can largely be characterized by a set of measurable elements including: level of biodiversity, physical settings in a watershed, adjacent land uses, degree of connectivity, and alterations to instream flow regime (Anderson et al., 2013; Rieman and Isaak, 2010; Palmer et al., 2009). For example, the presence of a diverse portfolio of species increases the probability that at least some of these species have the traits required to survive and maintain a suite of ecosystem functions in the face of climate change. Because native animals and plants evolved in conjunction with the dynamic nature of the river, much of their life history depends on the flow regime remaining in its natural state.

Wood is increasingly used in restoration projects to improve the hydro-morphological and ecological status of streams and rivers and wood placement has positive effects on several fish species (Journal of Applied Ecology, Volume 44, Issue 6, 2007). Large woody debris, such as downed cottonwood limbs, will be anchored in strategic locations along the banks to provide natural cover for fish and other aquatic species in the newly reconnected section of the river. Willow cuttings planted along the banks will help jump start the rehabilitation of the riparian corridor. Large wood can increase habitat diversity within channels and on floodplains through various processes. Instream wood typically causes flow separation and localized scour of the bed and banks, resulting in pools and undercut banks (Buffington et al. 2002; Collins et al. 2001). Localized deposition associated with the flow separation creates areas of finer substrate on the streambed (e.g., patches of sand along a cobble-bed stream) (Keller and Swanson, 1979; Faustini and Jones, 2003).

Improvement of the diversion structure will return the river to its natural width and depth as measured both upstream and downstream of the existing structure and reconnect a reach of the river for multiple other uses. It will restore the

natural flow regime in the area surrounding the existing diversion and reconnect the river through increased instream flows and improved planform.

Four rare native fishes; bonytail, Colorado pikeminnow, humpback chub and razorback sucker are either threatened or endangered and only live in the Colorado River Basin. The Upper Colorado River Endangered Fish Recovery Program is a public and private partnership of water users, conservation groups, and state and federal agencies. The Program was a novelty when developed in the 1980's to reestablish healthy populations of four endangered fish in the upper Colorado River basin while water development continues according to state, federal and tribal laws and compacts. It serves as an Endangered Species Act compliance vehicle and provides certainty for water development in the upper Colorado River basin. The Recovery Program uses science-based, cooperative actions to assist in endangered fish recovery. These include: re-operating federal reservoirs to create and maintain habitat, working with irrigators to improve their water efficiency, constructing fish passages and fish screens, and removing invasive predatory fish. Primary challenges to the Recovery Program include habitat loss, invasive predatory species, human development, and global warming. The Gunnison River is critical habitat for these endangered fish species and flows from the North Fork of the Gunnison are necessary to recover these species.

The Farmer's Ditch is on the North Fork of the Gunnison River, upstream from the stretch of the Gunnison River that provides habitat for the endangered fishes of the Upper Colorado River Basin (https://coloradoriverrecovery.org/wp-content/uploads/2022/02BriefingMaterials-ProgamBrochure_508.pdf). Peak and base flow targets to benefit the fish have been set for the stretch of the Gunnison River below its confluence with the North Fork, which are addressed through releases from Aspinall Unit reservoir upstream on the Gunnison River. However, flow targets may not be met in very dry or years. The estimated additional 3,400 ac-ft of additional water that this project will leave in the river through a 30 percent improvement in conveyance efficiency (reducing seepage and evaporation) will enhance the probability of hitting these targets.

Often overlooked are the community and economic benefits that are realized from reconnecting a reach of the river to the local community. The North Fork of the Gunnison Valley is a rural agricultural underserved community. For many years coal mining has been a driver of several cyclical shifting economic factors from boom to bust, rarely managed at a sustainable pace. Today, two out of three of the local coal mines are permanently closed and it is likely only a matter of time before the third shuts.

Fishing and paddling are a component of the valley's changing economy. River recreationalists spend money in local river communities, specifically in locally owned businesses. rather than filling up gas tanks and buying meals in outlying areas.

The Outdoor Industry Association has published several reports over the years including state-by-state economic reports that are all available through their website. Statistics included in a 2017 Outdoor Recreation Economy Report estimates that outdoor recreation contributes \$887 billion in consumer spending, 7.6 million American jobs, \$65.3 billion in Federal Tax revenue, and \$59.2 billion in state and local tax revenue. Water sports form a significant percentage of that benefit, including total expenditures of over \$140 billion and over 1.2 million jobs. The Colorado River Outfitters Association has tracked the economic benefits of rafting each year since 1988. According to a recent report, 2016 was a record commercial us year, with 550,861 user days and an economic impact of \$179.8 million (Commercial River Use in the State of Colorado 1988 to 2016). The 140 million Americans who spent \$646 billion on outdoor recreation created \$80 billion per year in national, state, and local tax revenues and the outdoor recreation economy grew 5 percent during the economic recession from 2005 to 2011 (The Outdoor Recreation Economy, 2012).

The North Fork of the Gunnison River is a tributary to the Gunnison River and is considered one of the best trout rivers in Colorado. Trout are often popular target species for anglers worldwide and are the most commonly stocked game fish species in the USA. Using survey data collected at Colorado's stocked public reservoirs in 2009, researchers found that trout anglers' net economic benefits were more than twice those of anglers fishing for species other than trout. Values estimated from the travel cost method produced angler-day consumer surpluses willingness to pay [WTP] of US \$191.60 for trout anglers and \$61.68 for non-trout anglers. Based on the contingent valuation method, the mean WTP was \$196.48 for trout anglers and \$73.84 for non-trout anglers, while the median WTP was \$164.53 for trout anglers and \$56.78 for non-trout anglers. Thus, the relative values of fishing for trout versus fishing for other species are robust to nonmarket valuation methods, and the two valuation methods show convergent validity (North American Journal of Fisheries Management 32(2):202-210, April 2012)

Proposed infrastructure improvements are not located in a river basin that is adversely impacted by a Reclamation water project. The project was not developed to meet existing environmental mitigation or compliance obligations under Federal or State law.

In accordance with Section 9504(a)(3)(B) of P.L.111-11, project construction will not result in the use of any associated water savings to increase the total irrigated acreage, nor will it otherwise increase otherwise result in an increase in the consumptive use of water in the operations of the Farmers Ditch Irrigation Association, as determined pursuant to the law(s) of the State in which the operation is located.

Water Management and Infrastructure Improvements Benefits - Efficiency of an irrigation diversion is the measure of diverted water consumptively used for crops as a percentage of the total water diverted for irrigation. Ideally, efficiency would be 100 percent, but a variety of factors prevents this from happening even in the most efficient systems. System efficiency is a product of both conveyance

efficiency and application efficiency; however, this project focuses on conveyance efficiency only.

Improvement of irrigation conveyance efficiency is estimated to be up to 30 percent from elimination of infiltration and evaporative water losses (USDA-NRCS NEH Part 23, Chapter 2, Irrigation water requirements). The Farmer's Ditch water right is 32 cfs and the irrigation season is approximately six months from April 15th to October 15th. Over a 6-month period, infrastructure improvements potentially could keep 3,427 ac-ft of water in the river for other uses by eliminating leakage without damage to existing agricultural water rights. Average annual diversion for the Farmers Ditch is approximately 9,500 ac-ft (Irrigation Management Plan, J-U-B Engineers, 2017). Infrastructure improvements also further protect agricultural water rights.

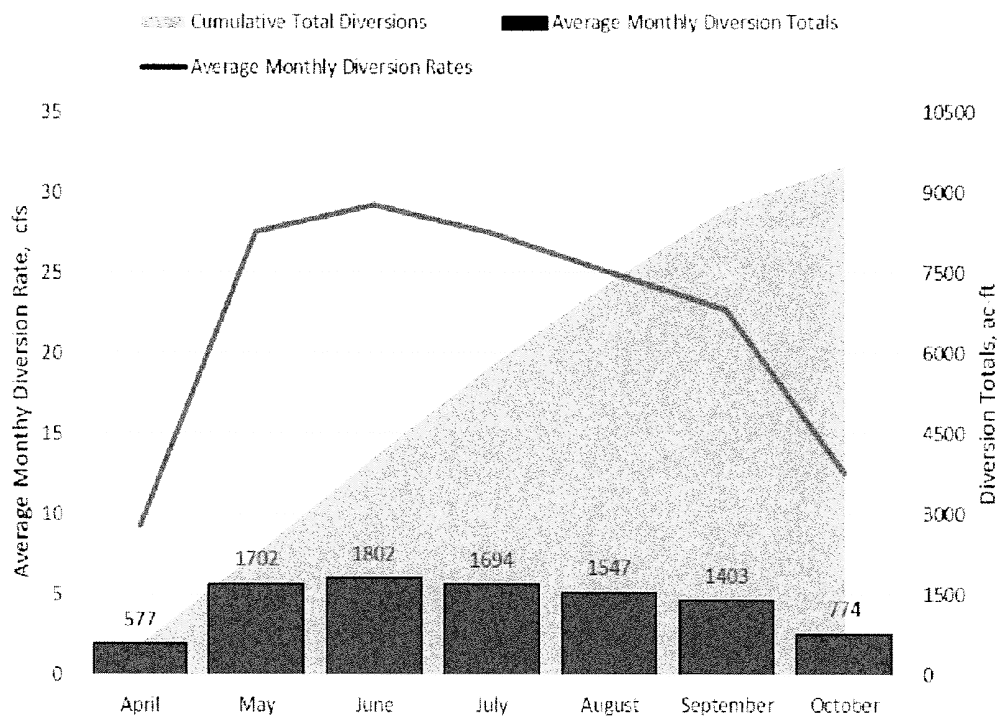


Figure 1. 2007 to 2016 Average Diversion Statistics for the North Fork Farmer's Ditch

According to the Colorado Decision Support System (CDSS) 965.87 acres are irrigated using water from the North Fork Farmer's Ditch, with a reported 87 percent of the irrigated acres cultivating either grass pasture or alfalfa. A 28 percent system efficiency was calculated for the North Fork Farmer's Ditch (Irrigation Management Plan J-U-B Engineers, 2017).

Multiple Benefits - Diversion improvements will directly support improved agricultural viability, enhance river health, benefit four native fish species that are

either endangered or threatened, remedy dangerous conditions for recreation, and improve overall river resilience and its ability to endure in the face of uncertainty caused by climate change. Modernization will also benefit rural communities that are heavily dependent on the recreation economy made possible by the river. In coordination with additional work on other ditches on the same reach of river, project construction support removal of barriers to fish passage, significantly improve aquatic species habitat, create safe boater passage, while improving water management infrastructure. Improvement of irrigation conveyance efficiency is estimated to be up to 30 percent from elimination of infiltration and evaporative water losses.

Evaluation Criterion B: Collaboration

The Western Slope Conservation Center (Center) has completed two primary specific and strategic planning documents to support this grant application. A Cooperative Watershed Management Plan funded by the Bureau of Reclamation (Bureau) was completed in 2014 and identified the Farmers ditch as a priority project. An (Integrated Watershed Management Plan, funded by the State of Colorado, was organized and completed in two parts in 2017. The first part was titled "North Fork of the Gunnison River Irrigation Management Plan" and developed by J-U-8 Engineers; the second, titled "North Fork of the Gunnison was organized and completed by the Center titled "North Fork of the Gunnison River Environmental and Recreational Needs Assessment". Together they form a comprehensive assessment of river water resources. Both plans identified the Farmer's Ditch as a priority project. Following is a summary of those documents:

Cooperative Watershed Management Plan - In 2013, the Bureau awarded the Western Slope Conservation Center a grant through the WaterSMART: Cooperative Watershed Management Program (CWMP) to expand as a watershed group and identify projects. The Center has a 40-year legacy of serving the waters, lands, air, and wildlife in the North Fork and Lower Gunnison Watersheds. As a grassroots community driven organization, members reflect local communities, and as an organization personnel endeavor to build consensus, collaborate, and engage community members.

Using the watershed plan as a guidebook to determine eligibility and priorities for future projects, Center personnel reviewed the success of past projects and outlined future projects on the North Fork and developed project concepts for the Smith Fork and Tongue Creek drainages using information gathered in respective watershed assessments.

The Center's watershed coordinator, along with the organization's watershed committee, key stakeholders from organizations representing industrial, environmental, recreational and agricultural interests, and government agency representatives, collaborated to build partnerships and reduce conflict. A primary goal is to ensure that communities and water resource colleagues view the Center as a nexus where people and ideas come together for the development and implementation of projects and programs with meaningful and measurable impact. Throughout the Center's over 40-year history, it has been partnership and

collaboration that have produced lasting professional relationships. Those relationships and connections that have played and continue to play a pivotal role in informing project concepts in the North Fork, Smith Fork, and Tongue Creek watersheds that align with their respective watershed plans.

Since 1997 Conservation Center's watershed program has been guided by a watershed restoration plan for the North Fork. That restoration plan listed goals and prioritized projects that were identified through a community-engaged, public planning process that documents and prioritizes the needs of the community. In 2014 watershed coordinator at the time, Jeff Crane, evaluated the success of the implementation of past projects and outlined future projects to continue to Fulfill our watershed plan's primary goals to 1) Improve ecosystem function and reduce the amount of valuable land lost to excessive streambank erosion, 2) Improve water quality, and 3) Increase recreational potential. These projects are described in the report titled Assessment of Aquatic Ecosystem Restoration Projects on the North Fork of the Gunnison. The report is available online, at our office, and excerpts can be found in the appendix of this application.

The following is the assessment and recommendation for the Fanner's Ditch reconstruction from the Assessment of Aquatic Ecosystem Restoration Project report (2014) funded by the Cooperative Watershed Management Plan grant:

3.18 FARMERS DITCH (DPR SITE 8)

The Farmers Ditch is located approximately two miles northeast of the Town of Paonia at a point where the North Fork parallels Highway 133. The existing permanent diversion for the Farmers Ditch is essentially a 5-foot-high check dam constructed of timber, rock, and concrete. Upstream of the check dam is characterized by a stable meandering channel; below the dam the river enters an entrenched straight channel narrowly confined by irrigated land on the left (south) and the Highway 133 embankment on the right (north) (USACE 2007). The structure diverts all water in the North Fork into the ditch, posing a barrier for fish movement during low-flow conditions and creating a safety hazard for recreational boating during higher flows.

3.18.1 Pre-Project Assessment

Since restoration activities have not occurred at this location, only the pre-project habitat quality assessment scores assigned in 2014 are presented (Table 19). Poor to marginal condition ratings were documented for aquatic habitat barriers (3/20, parameter 1), velocity/depth regimes (10/20, parameter 3), flow continuity (2/20, parameter 4), channel alteration (5/20, parameter 5), channel sinuosity (2/20, parameter 6), and wetland area and function (2/10, parameter 11).

Suboptimal to optimal ratings were recorded for aquatic structure as cover (12/20, parameter 2), bank stability (9/10 for both banks, parameter 7), riparian vegetation cover (18/20, parameter 8), riparian vegetation structural diversity (8/10 for both banks, parameter 9), and percent native woody vegetation (10/10 for both banks, parameter 10).

3.18.2 Conclusions and Recommendations

As part of the USACE Section 206 Aquatic Ecosystem Restoration plan, a project was proposed at this location to improve channel morphology at the existing diversion structure to consolidate flows to one side using a single-wing deflector above the diversion and allow fish passage via a series of nine rock drop/pool structures. The existing head gate would be retrofitted to improve diversion efficiencies (USACE 2007). This project has not been completed to date, but approaching the North Fork Farmers Ditch Association in Paonia to revisit funding and implementation of this project is recommended.

Integrated Watershed Management Plan

Part 1-Irrigation Management Plan-Executive Summary

The North Fork of the Gunnison River (North Fork) is a major tributary to the Gunnison River in Western Colorado. [tis a river of roughly 35.5 miles in length, beginning at the confluence of Muddy Creek and Anthracite Creek, both with origins beginning in the West Elk Mountains of Colorado. The North Fork ends roughly eight miles southwest of Hotchkiss, CO at its confluence with the Gunnison River. Surrounding terrain is highly variable with a combination of river corridor lowlands and fertile mesas. The north fork traverses the valley such that irrigation and crop cultivation occur on both sides of the river. Terrain and river location within the valley require multiple diversions to serve all the irrigable lands. As such, there are approximately 12 agricultural river diversions along the north fork, each of varying scale and varying impact to the overall river system.

North Fork Valley (the Valley or Valley) contains fertile soils with a climate conducive to widely varying agricultural production. Agriculture is not practical without irrigation. Farming and ranching are a major regional economic driver and culturally significant. As the primary beneficial consumptive users of water from the north fork, it is important that agricultural irrigators continue their work to improve the river system as a whole while protecting their historic water rights through beneficial consumptive use. Agriculture will remain an important part of the Valley for generations to come.

The purpose of this irrigation management plan is twofold. It has a primary objective to identify the near river infrastructure needs of agricultural users who divert water directly from the north fork and provide recommendations for moving forward with multi-benefit improvement projects within the river corridor. A secondary objective is to educate agricultural water users about their strong position on the river, and to engage them in the stream management planning with emphasis on the following:

Non-consumptive beneficial uses may also be realized without damage to existing agricultural water rights.

Beneficial and meaningful infrastructure improvements may be achieved by working with non-consumptive water use interests on the river.

Infrastructure improvements are a means of protecting agricultural water rights.

Irrigator needs were identified in two ways: through interviews with ditch board members and water users and through a brief river infrastructure assessment focused primarily on the diversion infrastructure. Interviews have provided a wealth of local knowledge and experience to help promote or reject potential improvement opportunities. The interview process also allowed for one-on-one conversations regarding river infrastructure improvements and the "big picture" issues associated with the north fork and its place in the larger Colorado River basin. A river infrastructure assessment contributed ideas for improvements regarding infrastructure, beginning in-stream and ending near the measuring device utilized by the Colorado Division of Water Resources (CDWR) division 4 staff for diversion measurement.

Preliminary cost estimates were developed for potential improvements to provide a sense of scale and to help identify which projects may be fundable. Once practical potential improvements were identified, they were ranked with a relative priority scale.

This report presents some of the findings (water rights, river system interaction, etc.). However, it does not include information on river administration. Administration of water rights along the north fork is the responsibility of the CDWR Division 4. The report is intended to assist decision makers in moving forward with agricultural water resources projects in the Valley.

Irrigation Management Plan-Farmers Ditch Overview and Recommendations-

The North Fork Farmers Ditch supplies irrigation water to river lowlands on the north side of the north fork and to the Hansen Mesa area just northeast of Hotchkiss, CO. Grass pasture, corn, and small grains are common along the entire ditch while some vineyards and fruit are also grown. 965.87 acres are irrigated using water from the North Fork Farmer's Ditch, with a reported 87 percent of the irrigated acres cultivating either grass pasture or alfalfa. A 28 percent system efficiency was calculated for the North Fork Farmer's Ditch. During low flows, the North Fork Farmer's Ditch diversion is detrimental to overall river function. Since the structure can, and often does, sweep the river, it creates a major impasse for the passage of aquatic species. During low flows, it adversely affects the river for approximately 0.3 miles until the headgate and spillback reintroduce water back to the river.

The North Fork Farmer's Ditch negatively impacts recreation along the North Fork River corridor. During low flows, the river is dry for 0.3 miles, inhibiting recreation in that stretch. Metal cribbing on the front of the diversion also represents a hazard to recreationalists. There is a history of contentious relationships between the irrigators on the North Fork Farmer's Ditch and recreationalists.

Recommendations: Provide modification to the diversion structure that would allow minimum flows, those typically returned 0.3 miles downstream, to remain in this reach of the river. This could be simply accomplished with a sectioned portion of the weir that accommodates removable check boards. Additionally, removal of exposed cribbing iron that poses a risk to recreationalists should be prioritized. A boat passage could also be incorporated on the south bank of the river.

Part 2-Environmental and Recreational Needs Assessment-Executive Summary

This assessment is the product of over a year of data collection, review, and analysis of information by Western Slope Conservation Center staff and volunteers regarding the historic and current environmental health of the North Fork of the Gunnison River. This assessment has been designed **with** several key purposes in mind:

1. To synthesize all relevant and pre-existing information, inventories, and assessments of **the** North Fork of the Gunnison River (North Fork);
2. To assess current stakeholder concerns regarding environmental and recreation needs; and
3. To recommend priorities for addressing those needs according to newly developed planning segments that have divided the river into eight distinct reaches.

Eight reaches were developed in collaboration with the North Fork Water Conservancy District. The district has prepared a North Fork River Irrigation Management Plan (J-U-8 Engineers, 2017). Authors hope that the environmental and recreation needs described in this assessment can serve in tandem with irrigation needs described in the North Fork Water Conservancy District's plan to target mutually beneficial infrastructure and environmental projects.

Based on a review of previous assessments and recent stakeholder interviews, this assessment has prioritized a number of short-term, mid-term, and long-term suggested projects on the north fork of the Gunnison River. The highest priority projects include:

1. Creation of a river stakeholder group to improve multi-use communication and assist in watershed management planning.
2. Improvement upon existing invasive species inventory and monitoring.
3. Invasive phreatophyte and other invasive species removal.
4. Re-initiation of morphological river channel monitoring of established cross-sections.
5. Bank stabilization and riparian corridor development at specific locations.
6. Development of additional public access points and improved boating and fishing infrastructure; and

7. Investigation of market mechanisms for mitigating current and future water use conflict.

The format of this assessment consists of an overview description of the North Fork Gunnison River by distinct reaches, followed by analysis of environmental and recreational issues in each reach, and a discussion of possible solutions to improve environmental conditions in the river and recreation on the river. Cost estimates for each recommendation are provided but are listed as projection windows and not intended to be used as actual budgets.

Environmental and Recreational Needs Assessment-Recommendations at Farmers Ditch

Provide modification to the diversion structure that would allow minimum flows, those typically returned 0.3 mile downstream, to remain in this reach of the river. This could be simply accomplished with a sectioned portion of the weir that accommodates removable check boards. Additionally, removal of exposed cribbing iron that poses a risk to recreationists should be prioritized. A boat passage could also be incorporated on the south bank of the river. Reorganization of boulders below the diversion could reduce boater risk during high water.

There has been a strong concerted effort on the part of landowners and conservation groups to remove invasive phreatophytes from the riparian corridor over the last 10 years. However, many of those treated areas are in dire need of retreatment. The amount of regrowth within the initial projects areas is unknown but is expected to be quite high. Building on the work of the Center and Tamarisk Coalition to inventory parcels that have been treated for invasive species for percent cover and regrowth would assist landowners and conservation groups in identifying priority areas that are in need of treatment. Add data into a GIS database for future projects.

Active Collaborative Process

The Center has actively been developing a collaborative process for water resource management in conjunction with environmental and recreational improvements for decades. It started in 1996 by working with individual landowners along the river to implement river improvements that stabilize stream banks, improve irrigation diversions and rehabilitate decades of bulldozing in the river by reconstructing meandering channels and revegetating the riparian corridor. Property along the river is primarily privately owned. To get anything accomplished, it requires cooperation from, and education of, landowners along the river. This work continues today.

Center personnel have worked closely with the following Cooperative Watershed Management partners:

- Towns of Paonia, Hotchkiss, Crawford, and Somerset
- Colorado Water Conservation Board
- Gunnison Basin Roundtable
- Colorado Department of Parks and Wildlife

- Colorado Department of Public Health and the Environment
- Colorado Oil & Gas Conservation Commission
- United Companies (gravel mining company)
- Colorado Cattlemen's Association
- Mountain Coal Company
- Oxbow Mining (coal and natural gas company)
- Bowie Resources (coal mining company)
- Natural Resources Conservation Service
- Bureau of Reclamation
- Environmental Protection Agency
- Trout Unlimited
- River Network
- National Fish & Wildlife Foundation
- Colorado State University

Partnering with these and others has created a collaborative process in the North Fork Valley from which all have learned. This has allowed organizations and individuals to look beyond their silos and immediate priorities to understand that multi-objective projects can benefit many interests and reduce conflicts as the competition for water increases.

Evaluation Criterion C: Stakeholder Support for Proposed Project

While the Center will manage the project in close collaboration with North Fork Farmers Ditch Association, many stakeholders over the years have contributed to planning and implementing projects on the fork of the Gunnison River. All have responsibility for the management of land, water, fish and wildlife, or recreation. Included in the Appendix are Letters of Support specifically for this project. They include:

- American Rivers
- Delta County Farmers Union
- Colorado River District
- Delta County Board of Commissioners
- Delta Conservation District
- Colorado Department of Water Resources

Additional efforts supporting this project include North Farmer's Ditch Diversion Improvement Concept Plan; North Fork of the Gunnison River Irrigation Improvement Plan; Assessment of Aquatic Ecosystem Restoration Projects, 1999-2014, North Fork Gunnison River, Delta County, Colorado; and Redacted V 2, North Fork of the Gunnison River, Environmental, Recreational Needs Assessment, December 2017, North Fork Integrated Water Management Plan and San Juan River Basin Recovery Implementation Program, Upper Colorado River Endangered Fish Recovery Program. Documentation is uploaded in the Appendix, insofar as the page limit allows.

A diverse set of stakeholders representing the State of Colorado, non-profit environmental organizations, recreational organizations, agricultural producers, and private businesses are also contributing to this project through cash and in-kind contributions. Letters of funding commitment will be submitted to the Bureau prior to grant award. Funding stakeholders include:

- Colorado Water Conservation Board
- Colorado River District
- Crane and Associates
- Gunnison Basin Roundtable
- Colorado River Conservation District
- North Fork Farmers Ditch Association
- Mighty Arrow Foundation
- Bowie Resources
- Farmer's Ditch Board
- American Rivers

Evaluation Criterion D: Readiness to Proceed

Past planning projects from the Cooperative Watershed Management Program (funded by the Bureau of Reclamation) and the Integrated Water Management Plan (funded by the State of Colorado) have identified this project as a priority for the North Fork of the Gunnison River. In June of 2022 the Center completed a concept plan and 30 percent engineering (funded by the State of Colorado) for the reconstruction and modernization of the Fanners Ditch diversion. The concept plan further identified the materials, quantities and costs for this project. Recent additional funding from the Colorado River Water Conservation District (CRWCD) and the State of Colorado has allowed the Center to contract with the river experts at GEI Consultants to develop a hydrologic model of the river and take the project to a 60 percent level of engineering completion. The Center has secured access to the private land through its partnership with the North Fork Farmer's Ditch Association. *(A partnership letter from the Association is included in the Appendix.)* Project implementation will not occur on federal land nor involve a federal facility.

Task 1 - Completion of the 60 percent engineering including a hydrologic model of the river, an AutoCAD base map on local survey datum, detailed drawings of all the existing infrastructure and preliminary plans for the reconstruction, and technical memo sufficient to support Task 2 Permitting. Additional detail is provided in the Technical Project Description of this proposal.

Milestone: Completion of engineering to 60 percent by August 2023
Deliverables: Copies of engineering plans, supporting documents

Task 2 - Permitting requirements include clearances under the Natural Environmental Policy Act (NEPA), National Historic Preservation Act, Clean Water Act. and, potentially, Endangered Species Act (ESA). No ground disturbing activities will occur until all clearances are received.

The project budget includes \$90,000 to comply with federal permitting requirements, and the budget proposal reflects a line item of \$30,000 for the Bureau to meet its obligations and responsibility for NEPA compliance. Based on construction activities, it is anticipated the project will require a NEPA Environmental Assessment. A cultural survey will be completed according to requirements of the National Historic Preservation Act and in consultation with the State Historic Preservation Office. Clearance through the Clean Water Act will require an Army Corps of Engineers 404 Permit. It is anticipated that the proposed project will fall under the Nationwide Permit. Funding is allocated in the budget to allow for a full analysis, if deemed necessary.

Although the project is designed to benefit aquatic species, there are four endangered or threatened species that only live in the Colorado River Basin. The Gunnison River is critical habitat for these endangered fish species and flows from the North Fork of the Gunnison are necessary to recover these species. Bureau personnel may decide further consultation with the US Fish and Wildlife Service or NOAA Fisheries Service is necessary to comply with ESA Section 7. Center staff discussed the project with Bureau personnel in early March 2023.

Permitting will be accomplished by GEI Consultants concurrently with final engineering in the first eight months of the grant funded project. Personnel will interface with the Bureau, as needed, on NEPA compliance.

Miles/one: Completion of all permitting requirements in the first eight months of the grant project period

Deliverables: Copies of all analyses and clearances from each permitting agency.

Task 3 - Final engineering by GEI Consultants will commence immediately following finalization of a grant agreement with the Bureau and occur concurrently with project permitting during the first eight months of the grant project period.

Milestone: Completion of final engineering in the first eight months of the grant project period

Deliverable: Construction-ready plan set

Task 4: Preparation of bid documents to identify qualified construction contractor. Document preparation, advertising, review of bids, and contract award will require 90-days after completion of engineering.

Milestone: Completion of successful bid process

Deliverable: Bid package, construction contract

Task 5 - Construction of the project will commence upon hiring of a construction contractor. Materials will be bought in America and construction salaries will follow Davis-Bacon regulations. Project management will include weekly construction and budget reports. Construction will take place between October 2024 and April 2025 to accommodate the irrigation season. Additional time has

been allotted for construction to taking into account the possibility of delays due to weather, as well as additional time that may be required up-front for permitting.

Milestone: Completion of construction within seven-months of start.

Deliverables: Photos documenting each stage of construction, final report with detailed budget breakdown, documentation/certification construction has been completed provided by GE/ Consultants (responsible party for construction oversight).

Task 6 - Project monitoring will begin two-weeks after completion of construction and will continue for six-months during the third year of the grant project period. The Center will conduct project monitoring for five-years after grant close-out. Detailed monitoring information is included under Evaluation Criterion E: Performance Measures.

Milestone: Installation of monitoring equipment

Deliverable: Monitoring results in semi-annual progress reports and final project report to the Bureau, along with a five-year monitoring plan

Task 7 - Bureau progress reports will be submitted by the Center's Executive Director semi-annually throughout the grant project period. A final project report will be submitted within 90 days of grant project completion.

Table 2: Timeline of Activities

Task	2023	2024	2025	2026
Final engineering & permitting		■		
Construction contractor bid process			■	
Project construction			■	
Project monitoring				■
Progress report/final report		■	■	■

Evaluation Criterion E: Performance Measures

Instream and ditch flows- Reconnecting this reach of river between the existing dam and the existing turnout structure is a primary benefit of this project. The measurement of success will be accomplished by comparing and recording flows in the river above the diversion and flows in the ditch. Remote measuring instruments installed in the ditch will record flows in real-time. The USGS stream gage above Somerset has been in continual operation since 1933. A spreadsheet will be created to compare river flows upstream to water diverted at the Fanners Ditch diversion. While the flows in the river immediately upstream to the diversion will not be the same as the gage data, measurements will provide a relative indication of stream flows at the ditch and a correlation can be determined for flows at the diversion. A 7-inch-wide stream gage will be mounted on the headgate structure which will relate water surface elevation at the diversion to Somerset stream gage data and estimate instream flows; a stage discharge curve will be calculated to measure weir flows over the Obermeyer gate. Measurements will be taken weekly

during the irrigation season and monthly outside the irrigation season for six months after construction is complete and recorded in a spreadsheet like the example below:

Date	Flow at Somerset (cfs)	Flow in Ditch (cfs)	Gage Height @ Diversion (ft)	Instream flow (cfs)

Structural integrity - Approximately 2,400 cubic yards of rock will be imported for this project to construct a morphologically balanced river planform that will provide for a pool/drop stream channel capable of upstream fish passage. Rock will be void-filled to prevent large boulders from becoming dislodged, but will not be grouted to allow for small movement. as rivers do, and provide for gravelly spawning pool areas through the structure. Adaptive management will be necessary over six months to ensure the integrity of the constructed point bar. Beyond 6 months the Center will monitor the point bar and the instream Obermeyer gate with photos.

Macroinvertebrate survey - Aquatic insects live in the water as larvae most of their lives, then emerge onto land for a brief period as winged adults. Sampling these emerged adults on land and the larva in the water is a useful tool for understanding the condition of the aquatic insect population and gaging the overall ecological health of the river. Monitoring of macroinvertebrates will occur prior to construction and continue for six-months months following construction.

Photos - Photo points will be established prior to construction and monitored after construction. The WSCC will again pursue additional funding to continue monitoring following the close of the grant.

Five-year monitoring- The Center will monitor project results for five-years after conclusion of the grant-funded project. It will use its diverse partnership network, as demonstrated through letters of support included in the Appendix; and ability to secure local and state grants and in-kind support, as demonstrated through its varied match partners included in the project budget, to support an ongoing monitoring effort. A strategy to accomplish extended monitoring will be a deliverable included in the Bureau's Final Project Report.

Evaluation Criterion F: Presidential and DOI Priorities

Climate change - Western Colorado, and Delta County in particular, has already experienced significant wanning and reduced streamflow due to the impacts of climate change. A Washington Post analysis found that this area of Colorado's Western Slope has wanted more than two degrees Celsius in the last 100 years. and is considered the largest 2C hot spot in the lower 48 United States. As the Colorado River Basin faces an unprecedented water crisis, headwater resilience is of the utmost importance. Improving opportunities for increased water efficiency of aging irrigation infrastructure in Colorado headwaters

tributaries represents the frontlines of fighting impacts from climate change. Farmers ditch diversion administers senior water rights for much of the North Fork of the Gunnison River downstream. Improvements to efficiency and water management capabilities at the diversion benefit shareholders and downstream users alike. Improvements to Fanners ditch diversion will extend late season water availability for water users downstream. This project will additionally increase resilience to climate change for both irrigated agriculture and aquatic species by improving the efficiency and stability of the diversion. Improvements to the diversion will allow for precise management resulting in more water remaining in-stream and increased efficiency in the delivery of diverted irrigation water. The project is not specifically designed to address wildfire or flood hazard risks, but the enhanced stability of the diversion will enable it to handle a wider range of river flows.

When the diversion is "calling" the stream, the improvements will enable 10 cfs remain in-stream to satisfy the next calling, rather than being returned to the river a ¼ mile downstream creating a dry stretch of stream. This improved streamflow connectivity, in combination with enhanced stability and complexity of the runout below the diversion, involving pools and riffles, will greatly enhance the ability of fish to move above and below the diversion to find the most suitable habitat during low flow periods. Infrastructure improvements have a lifespan of 25+ years positively impacting the ecosystem and its ability to withstand drought and impacts to climate change for at least two decades.

Since this project is focused on rehabilitating a rural irrigation diversion in a manner that improves fish passage and boater safety, it does not include components to address more urban climate change impacts. As noted above, irrigation relies on gravity for water delivery, so energy use is not a significant factor in water management. It does, however, complement other green solutions being implemented in the watershed. These include another diversion rehabilitation within the same stretch of river that is already designed and near implementation, under the leadership of Trout Unlimited. Together, the two projects will remove fish barriers and improve aquatic habitat conditions and resilience on 20 miles of the North Fork of the Gunnison River.

Through modernization of the Farmer's Ditch diversion and headgate structures for improved water delivery, efficiency and administration of the water right, project construction will improve reliability of irrigation water for agricultural users on the Farmer's Ditch. It will also allow water managers to make late season adjustments to improve North Fork fisheries and extend the irrigation season for downstream water users. By improving flow conditions in the river, this project will also reduce water quality problems related to high temperatures during low-flow periods.

Disadvantaged or underserved communities - Since the 1880s the rural community has been home to generations of hard-working ranchers, shepherds, farmers, orchardists, and coal miners. In recent decades, vintners, winemakers,

organic growers, and urban refugees have migrated to the valley seeking a wholesome and authentic community to raise their families or retire. However, the shutdown of two mines in the area has led to significant economic and social changes within. In recent decades, vintners, winemakers, organic growers, and urban refugees have migrated to the valley seeking a wholesome, authentic lifestyle. Wrestling more than a subsistence living from this beautiful but physically and economically isolated area is difficult. The per-capita income in Paonia is approximately \$25,532, which is 21 percent less than the state per-capita income (\$32,217). Delta County is the 19th poorest county in Colorado and has a 2.7 percent unemployment rate, and 12.7 percent of the population lives below the poverty line. Delta County was included in the Consumer Finance Protection Bureau's 2015 list of rural and underserved counties. Statistics from Colorado Dept. of Education, show that 48 percent of Paonia High School students and 65 percent of Paonia Elementary School students qualify for free or reduced cost lunches.

Nearly half of Delta County is public lands, including the Grand Mesa Uncompahgre and Gunnison (GMUG) National Forests, Gunnison Gorge National Conservation Area, and Black Canyon of the Gunnison National Park. Access to these public lands can be difficult for local residents, who recently identified significant geographic, cultural, and economic barriers to recreating in the outdoors through a GOCO Inspire Initiative survey of 3,600 students and 400 adults. Riverfront property along the North Fork of the Gunnison River is 95 percent privately owned, which makes the few public access points, like the Paonia River Park, essential community resources. According to a separate North Fork Valley Pool, Park and Recreation District survey, the community's most popular recreational activities include visiting nature areas, running/walking, hiking, fishing, and swimming. While there is growing interest in biking, river rafting, and snowmobiling, traditional recreational activities such as hunting and fishing remain popular and contribute nearly \$28 million to the local economy.

Negative impacts of climate change continue to plague the community and put its residents at risk, and threaten the "river" economy upon which they are heavily dependent. A Washington Post analysis found that this area of Colorado's Western Slope has warmed more than two degrees Celsius in the last 100 years and is considered the largest 2C hot spot in the lower 48 United States.

The North Fork of the Gunnison is the lifeblood of the North Fork Valley, which boasts the highest density of organic farms in Colorado, abundant wildlife, and a burgeoning recreation industry. At present, the North Fork watershed boasts a remarkable suite of natural and cultural resources. Local wildlife resources include populations of Colorado River cutthroat trout, greenback cutthroat trout, critical winter habitat for elk, mule deer, and lynx, and rare purple martin and yellow-billed cuckoo nesting habitat. The North Fork Valley supports twice the number of organic farms than any other county in Colorado, and it was recently dubbed the state "farm-to-table" capital by Colorado Life Magazine.

BUDGET PROPOSAL

The Western Slope Conservation Center, in partnership with the Fanners Ditch Irrigation Association, is requesting \$1,594,799 in federal funding to modernize Farmers ditch diversion and headgate structures.

Funding Plan and Letters of Commitment - The required 25 percent non-federal cost share will be realized through a combination of grants and in-kind contributions from state and local sources. Match partners are summarized in Table 1 below. Total match is \$640,200. Letters of funding commitment will be provided to the Bureau within 90-days after grant application submittal. Cash contributions will be available to the applicant by the time of grant award, excluding \$10,000 from the Farmer's Ditch Irrigation Association which is slated for the second year of the project period. Total project costs of \$2,234,999 are itemized in Table 2 below.

Table 1. Summary of Non-Federal and Federal Funding sources

Fundin sources	Amount	Project Benefit
Non-Federal entities		
*American Rivers	\$5,000	Stakeholder engagement
*Western Slope Conservation Center	\$14,000	Admin, project oversight
Colorado River Water Conservation Board (pre-award August 2022)	\$32,000	Engineering
Colorado River District Conservation District (pre-award September 2022)	\$45,000	Engineering
*Crane & Associates (pre-award from August 2022 to March 2023)	\$8,000	Project, partnership development
Gunnison Basin Roundtable	\$300,000	Construction
Colorado River Conservation District	\$200,000	Engineering & construction
Farmer's Ditch Association	\$20,000	Construction & monitoring
*Mighty Arrow Foundation	\$10,000	Partnership development; stakeholder engagement
*Bowie Resources	\$5,000	Construction (excavated material)
*Farmer's Ditch Board	\$1,200	Stakeholder meetings. project coordination
Non-Federal subtotal	\$640,200	
REQUESTED Reclamation funding	\$1,594,799	

*Denotes in-kind contributions

Table 2. Total Project Cost Table

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$1,594,799
Costs to be paid by the applicant	\$14,000
Value of third-party contributions	\$626,200
TOTAL project cost	\$2,234,999

BUDGET NARRATIVE (Sections align with categories on the SF424C;

Administrative and legal expenses

Overall project management is the responsibility of the Executive Director of The Western Slope Conservation Center (applicant). They will dedicate an estimated 10 hours a week to assure successful implementation of all aspects of the project, as well as manage consultants and complete BOR progress reports. Cost over the 3-year project period is \$50,400 plus fringe benefits charged at 12.3% or \$6,250 for a total of \$56,650 of which \$14,000 is offered as match. Costs are salary and wages equally divided over the three project years.

In-house project administration will require about 12 hours a month and include budget tracking, payment of contractors, assistance with meeting coordination and scheduling, tracking of reporting deadlines, and submission of progress reports written by the project manager. Cost over the 3-year grant period is \$8,640 plus fringe benefits charged at 12.3% or \$1,063 for total of \$9,703. Costs are salary and wages equally divided over the three project years.

Crane and Associates will direct day-to-day project activities, report to and provide monthly progress reports to the Center's Executive Director at a total cost of \$122,000 over the three-year project period, which averages out to \$41,000 a year. This is a contractual cost.

Auditing for the two project years when the amount of federal funding is expected to be greater than \$750,000 a year is budgeted at \$34,000. This is a contractual cost during the second and third project years.

Total wages and fringe benefits is **\$66,353**. Total contractual is **\$156,000**.

Architectural and Engineering

Fees include finalizing engineering which will be 60% complete by May 2023, and construction oversight. Total cost for engineering and construction plans is \$232,040 with \$77,000 expended pre-award and offered as match. Final engineering and construction plans will cost \$155,040. Construction oversight is budgeted at \$77,520. Engineering is being conducted by GEi Consultants, the company that will also be responsible for construction oversight. Total contractual cost for engineering is **\$309,560**.

Site Work by task is included in Table 3 below

Table 3: Site work

<i>Task</i>	<i>Amount</i>
<i>Mobilization</i>	<i>\$50,000</i>
<i>Erosion control</i>	<i>\$20,000</i>
<i>Cleaning & grubbing</i>	<i>\$19,500</i>
<i>Water control (river diversion & dewatering for structure construction)</i>	<i>\$65,000</i>
SITE WORK TOTAL	\$154,500

Demolition of existing structures (headgate> turnout and partial diversion dam) is budgeted at **\$15,600**.

Construction costs are itemized below in Table 4

Table 4: Construction costs

Description	Quantity	Unit Price	Total Price
<i>Diversion Structure</i>			
Structural Concrete (headgate structure, wing walls)	40CY	\$1,600	\$64,000
Structural Concrete (turnout and pipe headwall structures)	18CY	\$1,600	\$28,800
Point Bar Over and Above Existing Diversion Structure (30" rock void-filled)	234CY	\$200	\$46,800
Electricity	1LS	\$10,000	\$10,000
Material Testing	1LS	\$16,250	\$16,250
<i>Fish & Boating Passage</i>			
Runout Fill Below Dam (36" to 60" basalt boulders void filled w/cobble & gravel)	2,200CY	\$200	\$440,000
Revegetation (Cottonwoods/Willows along streambanks & ditch banks)	2.8AC	\$3,250	\$9,100
Revegetation (seeding)	3AC	\$5,000	\$5,000
<i>Ditch Piping</i>			
48" HDPE pipe installed	1,560LF	\$210	\$327,600
Concrete headwalls	8CY	\$1,600	\$12,800
Pipe bedding	350CY	\$80	\$28,000
Pipe backfill (imported)	400CY	\$80	\$32,000
Replace measuring flume	1LS	\$1,000	\$1,000
TOTAL CONSTRUCTION			\$1,021,350

Equipment costs include an Obermever gate and controls (3 ft. height) at \$130,000 automated Sluice gate at headgate & turnout & datalogger at flume for

\$58,000, and trash rack and floating boom for \$20,000. Total equipment costs are **\$208,000**.

Miscellaneous costs are summarized in Table 5 below.

Table 5: Miscellaneous costs

Permitting (NEPA, cultural, 404)	\$90,000
Project monitoring (6 months)	\$27,000
Monitoring supplies	\$1,000
Stakeholder engagement/project development	\$14,200
Indirect costs (10% of eligible costs)	\$57,291
TOTAL MISCELLANEOUS	\$184,491

Contingency is calculated at 10% of site work, demolition and construction.

$\$154,500 + \$15,600 + \$1,021,350 = \$1,191,450 \times .01 = \mathbf{\$119,145}$.

TOTAL PROJECT \$2,234,999

RECOMMENDED ELEMENTS

Environmental and Cultural Compliance

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

Although this is an infrastructure project, construction will not have an adverse impact on the surrounding environment.

- Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

There are four endangered or threatened fish species that are dependent on the Gunnison River.

The application narrative addresses ESA requirements. Proposed infrastructure improvements are designed to improve fish passage.

- Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States"? If so, describe and estimate any impacts the proposed project may have.

The application narrative and budget addresses the Clean Water Act and necessity to acquire clearance from the Army Corps of Engineers.

- When was the water delivery system constructed?

In the 1940s

- Will the proposed project result in any modification of, or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

The proposed project will modernize the Farmers ditch diversion and headgate structures. There have no previous extensive alterations.

- Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

The project has been discussed with the Bureau; the requirement for a cultural survey is addressed in the project narrative and costs are reflected in the budget.

Are there any known archeological sites in the proposed project area?
There are no known archaeological sites, but a cultural review will be conducted.

- Will the proposed project have a disproportionately high and adverse effect on low income or minority populations? **No**
- Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on Tribal lands? **No**
- Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area? **No**

Required Permits or Approvals

Required permits and clearances are addressed are addressed in the Technical Proposal under Evaluation Criterion D: Readiness to Proceed.

Official Resolution

An official resolution from the applicant is attached in the Appendix of this proposal

Letters of Support

Letters of support str are attached in the Appendix of this proposal.

Conflict of interest statement

The Applicant is unaware of the existence of any conflict of interest.

Overlap or duplication of effort statement

There is no overlap between the proposed project and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel. the proposal submitted for consideration under this program does not in any way duplicate any proposal or project that has been, or will be, submitted for funding consideration to any other potential funding source-whether it be Federal or non-Federal

Appendix

Western Slope Conservation Center Board Resolution in Support of Project and Grant Application

Partnership Letter from Farmers Ditch Association

Letters of Support

1. American Rivers
2. Delta County Farmers Union
3. Colorado River District
4. Delta County Board of Commissioners
5. Delta Conservation District
6. Colorado Department of Water Resources

Project Management Resumes

1. Tanya Henderson, Executive Director Western Slope Conservation Center
2. Jeff Crane, Contract Project Manager

Supplementary Planning Documents [excerpts from full reports available upon request]

1. North Fork Farmers Ditch Diversion Improvement Concept Plan (2022)
 2. BOR WaterSmart Integrated Watershed Management Plan - Phase I Final Report (2016)
 3. 1999-2014 Assessment of Aquatic Restoration Projects: North Fork of the Gunnison River (2014)
 4. North Fork of the Gunnison River Irrigation Management Plan (2017)
 5. North Fork of the Gunnison River: Environmental and Recreation Needs Assessment (2017)
-

NFRIA-WSERC Conservation Center, DBA Western Slope Conservation Center
a 501(c)3 non profit organization in Colorado

Executive Board
Resolution Authorizing Submittal of a WaterSMART: Environmental Water Resources
Program
Grant Application
Funding Opportunity No: R23AS00089

A resolution of the EXECUTIVE BOARD OF THE WESTERN SLOPE CONSERVATION CENTER authorizing submittal of a grant application to the United States Department of Interior, Bureau of Reclamation requesting federal funding to accomplish essential tasks associated with the WaterSMART:Environmental Water Resources Program.

WHEREAS, THE WESTERN SLOPE CONSERVATION CENTER hereinafter known as "THE CONSERVATION CENTER," is desirous of partnering with the Bureau of Reclamation to forward its goals for improved water management; and

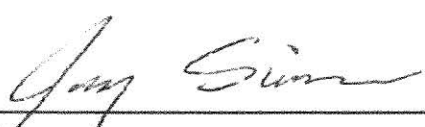
WHEREAS, THE CONSERVATION CENTER is desirous of seeking outside funding sources to support its goals and planned activities; and

WHEREAS, THE CONSERVATION CENTER has the professional expertise and financial ability to successfully implement the grant, including adherence to deadlines and reporting requirements;

NOW, THEREFORE, BE IT RESOLVED THAT the EXECUTIVE BOARD OF THE WESTERN SLOPE CONSERVATION CENTER approves application to the United States Department of Interior, Bureau of Reclamation and authorizes Project Director John Munderloh, Chair of the Coalition Technical Advisory Committee; and Project Manager Edwin Muccillo with Burgess and Niple, Inc. to take all necessary steps to complete and submit said application.

Passed and adopted by the EXECUTIVE BOARD OF THE WESTERN SLOPE CONSERVATION CENTER this 15TH day of March 2023.

By:



Jay Simon

Board Chair

The Western Slope Conservation Center

NORTH FORK FARMERS DITCH
ASSOCIATION

P.O. Box 1536
PAONIA, COLORADO

March 16, 2023

Western Slope Conservation Center "WSSC"
P.O Box 1612 Paonia, CO 81428

To Whom It May Concern:

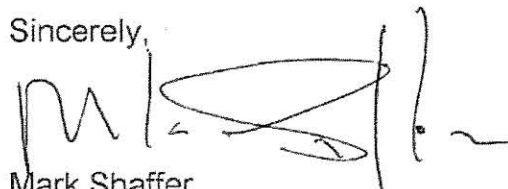
The North Fork Farmers Ditch Association "Farmers Ditch" welcomes the opportunity to reconstruct and modernize our diversion structure on the North Fork of the Gunnison River. At our 2023 annual meeting the membership and board voted at its January 28, 2023 annual meeting of Stockholders unanimously to support the efforts of the WSSC as much as possible to obtain grant funding sufficient to restore and improve the Farmers Ditch irrigation diversion in the river. Farmers Ditch is committed to support this multi year project consistent with the projects scope as has been presented in its concept plan and grant application, contingent on funding and Farmers Ditch written approval of the final engineering plans.

It is our understanding that the proposed project will not require any change of water rights owned by Farmers Ditch and its members, and will not result in changes in use or other alterations from historic use of the water and water rights.

Farmers Ditch decree dates back to 1890 and serves 97 shareholders and irrigates over 1,000 acres of premium valley floor farmland of which crops include hay, corn, pasture, apples, peaches, cherries, vegetables and grapes. Most of our shareholders make a living from their agricultural operations and finances are tight. Farmers Ditch is sensitive to this and has a tight budget itself to keep assessments in check. The last couple years assessment is set at \$160 per share or \$34,500 in total income. Expenses last year were around \$39,000 (most of which is repairs maintenance) causing depletion of cash reserves by 35%. The Farmers Ditch has never received or applied for any federal or other type of financial assistance and has always self funded through assessments.

Farmers Ditch is committing financially to support this project upon approval of the final engineering plans with \$10,000 and an additional \$10,000 near the end of the construction.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Shaffer', written over a horizontal line.

Mark Shaffer
Board President



March 9, 2023

U.S. Bureau of Reclamation
WaterSMART – Environmental Water Resources Project Funding Opportunity, March 2023

Re: Letter of Support for the Western Slope Conservation Center’s application to improve the North Fork Farmer’s Ditch Diversion

Dear Reclamation Grant Reviewers:

The American Rivers Southwest Team is pleased to support the West Slope Conservation Center’s application for an Environmental Water Resources Grant to improve the Farmer’s Ditch Diversion on the North Fork of the Gunnison River. This project will significantly improve fish habitat and boater safety, while also improving management of water for irrigation.

Improving the Farmer’s Ditch Diversion was identified as a priority project in a WaterSmart Watershed Planning Project for the region; Stream Management Planning efforts undertaken by the North Fork Water Conservancy District (NFWCD), West Slope Conservation Center, and partners; and was highlighted in the Basin Implementation Plan developed by the Gunnison Basin Roundtable, a standing group of stakeholders and water managers responsible for locally-based water planning. This is exactly the kind of collaborative project that will advance our region’s ability to support continued agricultural viability along with enhanced river health, despite increasing pressure on water supplies due to climate change.

The American Rivers Southwest Team, which seeks to drive solutions for rivers and communities to heal and thrive in the face of climate change and human impacts, has supported this project by assisting with fundraising to advance the project design, as well as implementation. Going forward, we will help monitor the progress of the project and publicize its impacts in order to encourage other communities to undertake similar projects.

We hope that you will look favorably upon this request.

Warm Regards,

A handwritten signature in black ink, appearing to read "Hannah Holm".

Hannah Holm
Associate Director for Policy, Southwest Region
115 N 5th Street, #410
Grand Junction, CO 81501

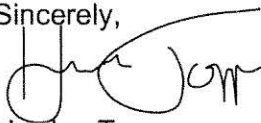
Western Slope Conservation Center
P,O Box 1612
Paonia, CO 81428

To Whom It May Concern:

The Delta Farmers Union is part of the Rocky Mountain Farmers Union located in Delta County on the Western Slope of Colorado. We are a part of the grassroots organization of family farmers and ranchers in Colorado, New Mexico and Wyoming that provides education programs, legislative support and support in general for family agriculture and rural communities. Located between the Grand Mesa, the West Elk Mountains and the Uncompahgre Plateau, Delta County is home to a range of agricultural family farming operations, including cattle ranches, award winning orchards, wineries and row crop farms. The North Fork Farmer's Ditch is one of Delta County's oldest irrigation ditch companies that provides irrigation water to orchards, wineries, ranches and row crop farms in the North Fork Valley of the Gunnison River.. Consistent with its proud history of supporting family farming, the Delta Farmers Union is pleased to supply this letter of support for the North Fork Farmer's Ditch Irrigation Diversion Improvement Project.

The North Fork Farmer's Ditch was begun in Paonia in 1888 and incorporated in 1890. It was extended in 1898 to reach Hanson Mesa in Hotchkiss. The extension was incorporated in 1914 and became a part of the North Fork Farmer's Ditch in 1971. As such, the North Fork Farmer's Ditch is one of the oldest decreed agricultural water rights in Delta County. The proposed project will modernize the existing headgate and diversion structures, provide piping along approximately 1600 feet of currently leaking earthen ditch immediately below the headgate, and provide a supervisory control and data acquisition (SCADA) system for control of the diversion of irrigation water. The completed project will provide for improved irrigation water delivery, efficiency, and improved water right administration while maximizing instream flows, improved upstream fish passage and removal of an instream boating hazard. The fully funded project will improve irrigation water efficiency, water conservation and provide enhanced river recreational opportunity. Preliminary grants have advanced the engineering design of the project to the point where additional funding will enable final engineering planning and implementation of the project. The Delta Farmers Union supports full funding of the proposed project.

Sincerely,



Harrison Topp

President, Delta County Farmers Union
303-918-3538, harrisontopp@gmail.com



COLORADO RIVER DISTRICT

PROTECTING WESTERN COLORADO WATER SINCE 1937

March 10, 2023

Via electronic mail

Bureau of Reclamation
ATTN: Ms. Avra Morgan and Ms. Robin Graber
PO Box 25007
Denver Federal Center
Denver, CO 80225-0007

RE: Support Letter: North Fork Farmer's Ditch Diversion Improvement Project

Dear Ms. Morgan and Ms. Graber:

The Colorado River Water Conservation District ("River District") is pleased to support Western Slope Conservation Center's WaterSMART Environmental Water Resources Project ("EWRP") application regarding the North Fork Farmer's Ditch Diversion Improvement Project.

The Farmer's Ditch diversion is one of the oldest diversions on the North Fork of the Gunnison River. The project aims to replace the headgate and downstream spillback flume in the diversion on the Farmer's Ditch. Additionally, the project will upgrade the SCADA telemetry to allow for more efficient water delivery management and will benefit the native fish species. These upgrades will improve late-river flows for the agricultural users, improve fish passage, and deliver compacted water more efficiently. Funding from the WaterSMART EWRP grant would support the improvement of the Farmer's Ditch Diversion.

In June 2022, the River District launched our Accelerator Grant program to provide grant-writing, feasibility, design, preliminary environmental review, benefits analysis, and engineering to support federal funding applications made available through the Bipartisan Infrastructure Law. This program is made possible through the River District's Community Funding Partnership Program ("CFP"), which was created in 2021 to fund multi-purpose water projects on the Western Slope. In September 2022, the River District awarded Western Slope Conservation Center a \$45,000 Accelerator Grant to support North Fork Farmer's Ditch Diversion Improvement Project.

The River District promotes, encourages, and supports the wise and efficient use of all of Colorado's water resources. Additionally, the River District supports upgrading aging water delivery and diversion infrastructure, while enhancing native fish passage.

Support Letter: North Fork Farmer's Ditch Diversion Improvement Project

March 10, 2023

Page 2



We strongly support the North Fork Farmer's Ditch Diversion Improvement Project and the coalition of partners working together to modernize the Farmer's Ditch diversion and headgate structure.

Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. A. Mueller".

Andrew A. Mueller
General Manager



March 21, 2023

Delta County Board of Commissioners fully supports the attached grant application from the North Fork Farmer's Ditch. Delta County, located on the Western Slope of Colorado, has since its creation by the state legislature in 1883 had a history of agriculture, coal mining, land and water development. Nestled between the Grand Mesa, the West Elk Mountains and the Uncompahgre Plateau, Delta County is home to a range of agricultural operations, including cattle ranches, award winning orchards, wineries and row crop farms. The North Fork Farmer's Ditch is one of Delta County's oldest irrigation ditch companies. Consistent with its proud agricultural history, Delta County is pleased to supply this letter of support for the North Fork Farmer's Ditch Irrigation Diversion Improvement Project.

The North Fork Farmer's Ditch was begun in Paonia in 1888 and incorporated in 1890. It was extended in 1898 to reach Hanson Mesa in Hotchkiss. The extension was incorporated in 1914 and became a part of the North Fork Farmer's Ditch in 1971. The proposed project will modernize the existing headgate and diversion structures, provide piping along approximately 1600 feet of currently leaking earthen ditch immediately below the headgate, and provide a supervisory control and data acquisition (SCADA) system for control of the diversion of irrigation water. The completed project will provide for improved water delivery, efficiency, and improved water right administration while maximizing instream flows, improved upstream fish passage and removal of an instream boating hazard.

Preliminary grants have advanced the engineering design of the project to the point where additional funding will enable final engineering planning and implementation of the project. Delta County Board of Commissioners urges your respective funding agency to fully fund this critical infrastructure.

Respectfully,

Delta County Board of Commissioners

Wendell Koontz, Chair

Mike Lane, Vice-Chair

Don Suppes, Commissioner



March 6, 2023

Western Slope Conservation Center
P.O. Box 1612
Paonia, CO 81428

To Whom It May Concern:

The Delta Conservation District is a special-purpose district in Delta County, Colorado whose purpose is to provide for the preservation of natural resources and the agricultural heritage of Delta County. Included among the District's number of conservation activities and programs are irrigation system upgrades and general irrigation/agriculture questions. Consistent with its activities and programs, the Delta Conservation District is pleased to supply this letter of support for the North Fork Farmer's Ditch Irrigation Diversion Improvement Project.

The North Fork Farmer's Ditch was begun in Paonia in 1888 and incorporated in 1890. It was extended in 1898 to reach Hanson Mesa in Hotchkiss. The extension was incorporated in 1914 and became a part of the North fork Farmer's Ditch in 1971. As such, the North Fork Farmer's Ditch is one of the oldest decreed agricultural water rights in Delta County. The proposed project will modernize the existing headgate and diversion structures, provide piping along approximately 1600 feet of currently leaking earthen ditch immediately below the headgate, provide a supervisory control and data acquisition (SCADA) system for control of the diversion of irrigation water, for improved water delivery, efficiency, and improved water right administration while maximizing instream flows, improved upstream fish passage and removal of an in stream boating hazard. The fully funded project will improve irrigation water efficiency, water conservation, and provide enhanced river recreational opportunity. Preliminary grants have advanced the engineering design of the project to the point where additional funding will enable final engineering planning and implementation of the project. The Delta Conservation District supports full funding of the proposed project.

Sincerely,

A handwritten signature in cursive script that reads "Paul Kehmeier".

Paul Kehmeier, President
Board of Supervisors



March 13, 2023

Bureau of Reclamation
ATTN: Ms. Avra Morgan and Ms. Robin Graber
P.O. Box 25007
Denver Federal Center
Denver, CO 80225-0007

North Fork Water Conservancy District
P.O. Box 217
Hotchkiss, CO 81419

RE: Support Letter; North Fork Farmers Ditch Diversion Improvement Project

To Ms. Morgan and Ms. Graber,

The Colorado Division of Water Resources (CDWR) is pleased to support the Western Slope Conservation Center and North Fork Farmers Ditch WaterSMART Environmental Resources Project (EWRP) application regarding the North Fork Farmers Ditch Diversion Improvement Project.

The North Fork Farmers Ditch is one of Delta County's oldest irrigation ditch companies (inc. 1890) that provides irrigation water to orchards, wineries, ranches and row crop farms in the North Fork of the Gunnison River valley. This project aims to replace the headgate, spillback structure, and measuring flume on the North Fork Farmers Ditch. Additionally, the project will upgrade to SCADA telemetry to allow for more efficient water delivery management and will benefit many native fish species. These upgrades will improve CDWR's ability to regulate river flows for all users and to deliver water more reliably. Consistent with its authority to regulate the diversions of Colorado's water, and with a desire to do so in an effective and efficient manner, CDWR is pleased to supply this letter of support for the North Fork Farmers Ditch Diversion Improvement Project.

Sincerely,

Colorado Division of Water Resources,
Lead North Fork Water Commissioner
Luke.reschke@state.co.us; (970) 234-4922

enc:

ec: Bob Hurford (bob.hurford@state.co.us), Jake Hartter (jake@theconservationcenter.org)

