Automation of Agriculture Diversions on the Bear River:

Improved Control and Delivery of Streamflow and Storage Water

Community Agriculture Alliance
P.O. Box 771434
Steamboat Springs, CO 80477

Patrick Stanko
Ag Resource Coordinator
Community Agriculture Alliance
P.O. Box 771434
Steamboat Springs, CO 80477
patrick@communityagalliance.org
970-879-4370

COMMUNITY
AGRICULTURE
ALLIANCE

Contents

Executive Summary

Date July 8, 2024

Community Agricultural Alliance (CAA),

Steamboat Springs, Routt County, Colorado

The Bear River, the crucial headwaters reach of the Yampa River in Northwest Colorado, stands out as one of the few highly administered rivers in the Yampa Basin. In addition, it's one of the sections of the Yampa River Basin where agriculture producers can purchase stored water for delivery during the irrigation season. The Bear River agricultural producers are either members of the irrigation company that owns Stillwater Reservoir or have contracts with the Upper Yampa Water Conservancy District (UYWCD). The Colorado Division of Water Resources (DWR) is placing telemetry on the measuring devices on most of the ditches on the Bear River starting in 2024. It is expected to be completed in the spring of 2025. This project's scope is to add automation to critical diversions on the Bear River to improve water delivery to the entire system.

Community Agriculture Alliance (CAA) is a 501c3 nonprofit organization promoting and supporting local agriculture in Routt County, Colorado, and has been working on regional water issues since 2012. In 2018, CAA was the leading organization to bring in agriculture stakeholders for the development of the Yampa Integrated Water Management Plan (IWMP) and is driving to meet the recommendations of this plan to build long-term capacity and support for the representation of agricultural water efforts and to secure funds to implement multi-benefits diversion structure upgrades. CAA, along with many of its partners, including the UYWCD, is working on projects to meet these objectives, which include bringing automation to the Bear River. The automation of Bear River agriculture structures will also be critical in supporting the instream flow rights of the Bear River, which is also recommended by the Yampa IWMP.

As stated earlier, this project's scope is to automate the headgates of the Bear River to improve water delivery, both natural, purchased, and river administration. With its partner (UYWCD), CAA seeks to phase in automation through three funding cycles. This request aims to contract with the Bureau of Reclamation (BOR) Automation Group out of the Provo office to automate five headgates and install a communication base station for radio transmission. CAA would work with the Automation group to automate the five headgates between Fall 2025 and Summer 2026.

Project Location:

This project is located on the Bear River, a headwaters reach of the Yampa River, which starts in the Flattop mountains of the Routt National Forest and runs to the Town of Yampa in South Routt County, of Colorado. There are five headgate structures proposed to be automated in Phase 1 of this project. They are as follows:

Headgate: Buckingham
Latitude: 40.095265
Longitude: -106.963730
Adjudication Dates: 9/22/1892, 9/21/1903, 9/14/1946:
Net Absolute: 22.7 CSF total, Adjudicated amounts: 13.8, 1.83, 7.1 CSF
512.9 acres of irrigated hay

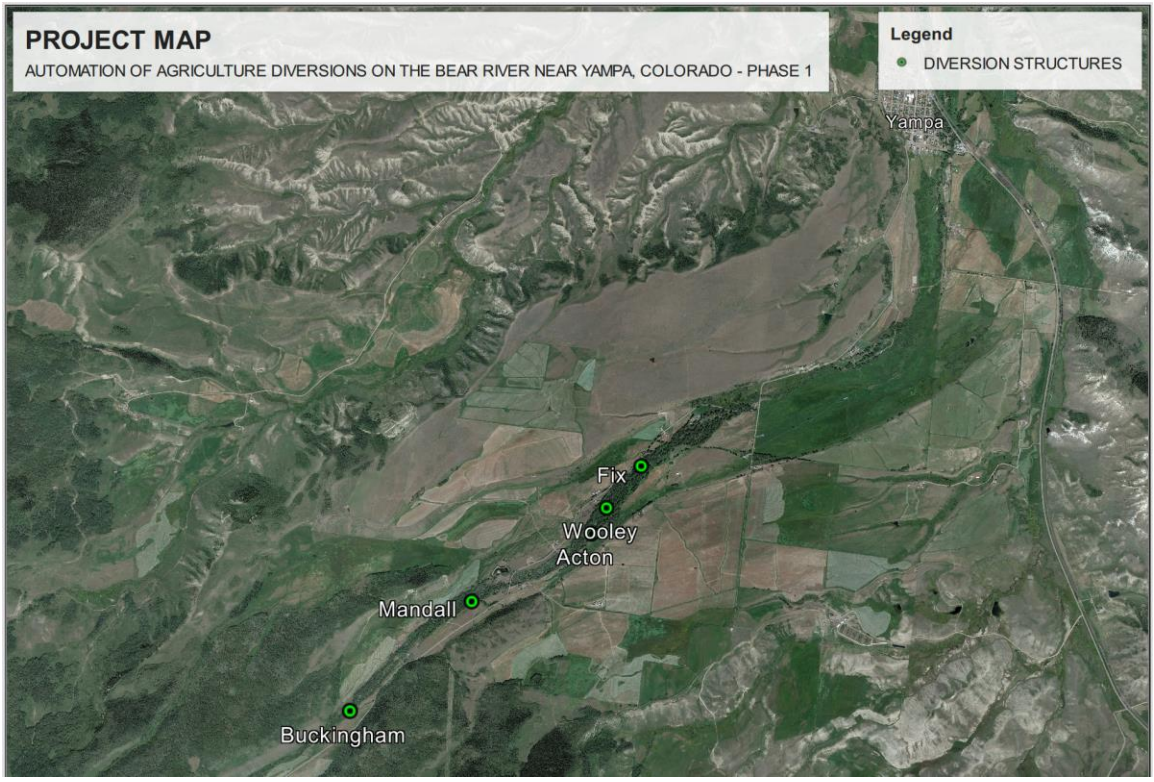
Headgate: Fix
Latitude: 40. 118549
Longitude: -106.935557
Adjudication Dates: 9/22/1892, 9/21/1904, 9/14/1946
Net Absolute 18.04 CSF total, Adjudicated amounts 1.2, 5.43, 0.66, 10.75 CSF
445.1 acres of irrigated hay

Headgate: Wooley
Latitude: 40.114630
Longitude: -106.938837
Adjudication Dates: 9/22/1892, 9/14/1946
Net Absolute: 11.66 CSF total, Adjudicated amounts .710, 2.87, 3.16, 4.92 CSF
365.2 acres of irrigated hay

Headgate: Mandall
Latitude: 40.105413
Longitude: -106.9 52278
Adjudication Dates: 9/22/1892,9/14/1946
Net Absolute: 27.51 CSF total, Adjudicated amounts 3.16, 15.8, 3.63, 4.92 CSF
497.1 acres of irrigated hay

Headgate: Acton
Latitude: 40.112302
Longitude: -106.940132
Adjudication Dates: 9/22/1892,9/14/1946
Net Absolute: 12.32 CFS total, Adjudicated amounts 3.0, 3.16, 6.16 CSF
349.6 acres of irrigated hay


COLORADO
PROJECT LOCATION
ROCKY MOUNTAINS
Fort Collins
Loveland
Greeley
Longs Peak
4346 m (14,259 ft)
Longmont
Boulder
Broomfield
Denver
Arvada
Aurora
Lakewood
Englewood
Littleton
Mt Evans
4350 m (14,271 ft)
Castle Rock
Colorado Springs
Pikes Peak
4,302 m (14,115 ft)
Cripple Creek
Security
Black Forest
Pueblo
Walden
Craig
Steamboat Springs
Dinasaur
Granby
Idaho Springs
Vail
Rifle
Glenwood Springs
ROAN PLATEAU
Book Cliffs
Fruita
Grand Junction
Orchard City
Delta
Montrose
Gunnison
Uncompahgre Plateau
Aspen
Leadville
Fairplay
Mt Elbert
4401 m (14,433 ft)
Salida
Cañon City
Florence
Saguache
San Luis Peak
4274 m (14,014 ft)
Telluride
Ouray
Mt Wilson 14246
Silverton
Del Norte
Monte Vista
Alamosa
Blanca Peak
4374 m (14,351 ft)
Walsenburg
Trinidad
Antonito
Cortez
Mesa Verde
Durango
Pagosa Springs
SAN JUAN MTS
SANGRE DE CRISTO MTNS
Navajo
Julesburg
Sterling
Holyoke
Brush
Fort Morgan
Akron
Wray
Last Chance
Byers
Limon
Burlington
Cheyenne Wells
Eads
Ordway
Las Animas
Lamar
Rocky Ford
La Junta
Springfield
Arkansas River
Platte River
Arikaree River
Purgatoire River
Yampa River
Colorado River
Gunnison River
Dolores River
Rio Grande
South Platte River
Sawatch Range
Park Range
Front Range


PROJECT MAP
AUTOMATION OF AGRICULTURE DIVERSIONS ON THE BEAR RIVER NEAR YAMPA, COLORADO - PHASE 1
Legend
DIVERSION STRUCTURES
Yampa
Fix
Wooley
Acton
Mandall
Buckingham

Technical Project Description

The Bear River in the Yampa Basin is the only river reach in the Yampa Basin that the Colorado Division of Water Resources must administer annually. This reach is also one of the few sections of the Yampa River where storage water contracts are available to agricultural producers from the Upper Yampa Water Conservancy District (UYWCD) or via the Bear River Reservoir Company out of Stillwater Reservoir. Delivery of stored water to junior priority water users must be shepherded through a system of twenty diversions covering approximately eleven miles of river. This project proposes to contract with the BOR Water Project Automation group out of the Provo office for technical and design assistance to install automated headgate assemblies on the top five priority headgates on the Bear River. Additional headgate automation is planned for future phases of the overall project.

In 2024, the Colorado Division of Water Resources (DWR) will add telemetry flow monitoring to the Bear River agricultural diversions. This monitoring system uses a transducer to measure the standing wave in measurement flumes and transmits the flow data via satellite to the DWR online public data portal. The proposed project will allow remote operation and automation of headgates along the Bear River. The headgates identified in this funding proposal are most often adjusted during the irrigation season. If automated, these headgates will serve to improve water use efficiency to irrigated lands. Along this stretch of the Bear River, flows are characterized by severe diurnal fluctuations due to snow melt runoff in the spring months, significant temperature related hydrologic impacts during the summer, and reservoir releases as water users put in calls for leased water. These conditions lead to an unwieldy water management system that automation is ideally positioned to address. The priority headgates identified for installation in this proposal are those that DWR/water right owners hand adjust daily, if not multiple times a day. By integrating DWR data, reservoir flow releases, and stream gage data into programing of the installed headgate operation gear, flow regulation will be automated and allow for remote adjustment depending upon the specific needs of the individual ditches and headgates. Due to the need for near constant policing of water use along this river stretch, water user conflict has historically occurred. The currently installed telemetry measurement coupled with the proposed headgate automation will enable water users and DWR to adjust diversion flows at each headgate, as needed, in response to the dynamic administration priority changes experienced on the Bear River and lead to decreased conflict between water users as a more responsive regulating system can be implemented.

Adding automation to the five headgates listed in this application will reduce the water management burden on the water users, DWR, and the UYWCD with the benefit of better water control on the Bear River. Similar projects in other basins have achieved notable water efficiency gains following implementation of similar headgate automation. These installations result in more responsive adjustment to fluctuations in river flows and a reduced instance of available flow bypassing headgates that come in and out of priority based on stream flow. In a system with such wild fluctuations in flow over the course of each day, in-person adjustment is inefficiency, results in notable water loss, requires incredible dedication of limited ditch owner and DWR staffing resources, and leads to water user conflict. These efficiency gains are advantageous, especially during times, such as nights, weekends, or holidays. The five priority headgates are included in this first phase, with the long-term goal to phase in additional headgates until at least fifteen of the

twenty headgates are automated. Ultimately, this widespread deployment of automation technology will allow for the ability to achieve notable water use efficiency gains, the ability to deliver the instream flow right on the Bear River, and allow water rights owners on the Bear to receive their water for irrigation in a more timely and efficient manner.

Evaluation Criterion

Project Benefits

Clearly explain the anticipated water management benefits to the Category A applicant's water supply delivery system and water customers. Consider:

- *Will the project result in more efficient management of the water supply?*
- *Where any conserved water as a result of the project will go and how it will be used?*

The Upper Yampa Water Conservancy District (UYWCD) supplies water to agricultural producers on the Bear River for irrigation of high-altitude hay production. The Bear River is typically placed under the State of Colorado River Administration in May with the start of the irrigation season. River administration continues through October until the end of irrigation season, requiring the Colorado Division of Water Resources (DWR) staff to actively administer water diversions daily. DWR and the agricultural producers currently manually adjust the headgates multiple times a day to meet the ever-changing diurnal flow patterns on the river and in order to shepherd water to senior priority water users. Adding automated headgates to the Bear River will:

- Aid in more efficient water management for the UYWCD and DWR.
- Allow junior water rights to get water when it is available that usually would pass their headgates without automation. This water will be utilized by agricultural water rights holders in their respective operations.
- Enable leased water for instream flow rights to be shepherded down the Bear River, preserving and enhancing the native aquatic habitat.
- Reduce the burden of DWR staff time on the Bear River.
- Allow the agricultural producers who buy stored water from the UYWCD to receive the full amount purchased, as it can be more easily shepherded to the desired headgate.
- Bring better collaboration between water managers and agricultural producers on the system, as information will be more transparent to all parties. This should lead to less conflict and/or potential for distrust among water users and government officials
- Currently system losses occur due to the fact that diversion structures cannot modulate to adjust to real-time streamflow variability. Addition of automation will allow for compensation to reduce real-time system losses and improve overall delivery efficiencies. Per the Bureau of Reclamation Provo group, in other areas where this type of concerted approach to river management has been deployed, notable water usage savings has been realized. These savings can be put to beneficial use on additional lands and/or delivered for meeting environmental, in-stream flow targets

Planning Efforts Supporting the Project

Plan Description and Objectives: *Is your project supported by a specific planning document or effort? If so, describe the existing plan. When was the plan developed? What is the purpose and objective of the plan?*

Plan Development: *Who developed the planning effort? What is the geographic scope of the plan? If the planning effort was not developed by the Category A applicant, describe the Category A applicant's involvement in developing the planning effort.*

Support for the Project: *Describe to what extend the proposed project is supported by the identified plan. Consider:*

- *Is the project identified specifically by name and location in the planning effort?*
- *Is this type of project identified in the planning effort?*
- *Explain whether the proposed project implement a goal, objective, or address a need or problem identified in the existing planning effort?*
- *Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures*

The Yampa Integrated Water Management Plan (IWMP), completed in 2022, was developed by the Yampa-White-Green Basin Roundtable, one of nine basin roundtables supported by the Colorado Water Conservation Board. These roundtables bring together the different water users in the basin and work collaboratively to solve water supply gaps. The stakeholders in the plan's development included representatives from the entire Yampa Basin, located in Routt and Moffat Counties of Colorado. The stakeholders involved in the development of the Yampa IWMP were from agricultural, municipal, environmental, and recreational interests, as well as water conservation/conservancy districts, which included staff and board members from the Upper Yampa Water Conservancy District (UYWCD). Community Agriculture Alliance (CAA) led the outreach to the agricultural community for stakeholders' input on the plan and its recommendations.

The final IWMP developed twenty recommendations for continued areas of management efforts including basin-wide education, outreach and collaboration activities, river corridor protection, support for beneficial uses of the river corridor and flows, and river flows protection. The CAA used stakeholder input and the agriculture diversion assessment data from the IWMP to focus its efforts on the Bear River agricultural infrastructure. These efforts include diversion infrastructure repair projects such as the Nickell Ditch Diversion Repair Project, scheduled for construction in the fall of 2024. This stakeholder engagement also highlighted the need for diversion automation on the Bear River. This Bear River automation project will directly support two beneficial uses of the river corridor and its flows by securing funding to implement multi-benefit irrigation diversion structure upgrades and coordinate reservoir operations to meet irrigation and environmental flow shortages. This project will also support the IWMP recommendation to showcase demonstration projects in the basin with multiple benefits. The proposed headgate automation will help to meet existing environmental flow targets of the existing State of Colorado Instream Flow Right on the Bear River.

CAA and its contracting engineer (Zenobia Consultants) engaged the BOR Water Project Automation group from the Provo office in the fall of 2023 to investigate the feasibility of headgate automation on the Bear River. Working with the Colorado Division of Water Resources (DWR) and the UYWCD, CAA decided to focus the proposed automation at the headgates that need daily adjustments in reaction to the complex river system. CAA, Zenobia Consultants, and UYWCD reviewed the proposed automation and have confidence that the Bear River Automation system can use one communication base station to communicate to all 20 diversions on the Bear River.

Implementation and Results

- Describe the implementation plan for the proposed project. Please include an estimated project schedule showing the proposed work's stages and duration, including major tasks, milestones, and dates.
- Proposals with a budget and budget narrative that provide a reasonable explanation of project costs will be prioritized under this criterion.
- Describe any permits and agency approvals that will be required, along with the process and timeframe for obtaining such permits or approvals.
- Identify and describe any engineering or design work performed specifically in support of the proposed project. What level of engineering design is the project currently? If additional design is required, describe the planned process and timeline for completing the design.

The Colorado Division of Water Resources (DWR) has started installing telemetry on the flow measuring devices on most of the ditches on the Bear River. There are currently multiple telemetry flow measurement devices installed and transmitting data to the DWR online data portal. This flow measurement effort is expected to be completed in the spring of 2025. CAA and the ditch owners of the five headgates outlined in this application will contract with the Water Project Automation Group to install their working automation design, with planned operational functionality by the 2026 irrigation season. This will require that all site preparation be completed by the end of October 2025 and the Automation Group install their design by the spring of 2026. Ideally, this would be completed by the end of November 2025. The base station needed for communication to the system will also be installed in the fall of 2025. The following chart shows the proposed project schedule.

Since 2023, the CAA contracting engineer (Zenobia Consultants) has been working with the Water Project Automation group out of the Bureau Provo office to evaluate the feasibility of automating the irrigation headgates on the Bear River. Eric Peterson of the BOR Water Project Automation group inspected headgates planned for automation for this project. Mr. Peterson provided design options similar to designs that have been completed for other irrigation projects. In the fall of 2023, Mr. Peterson estimated automating a single headgate would cost $23,000. Since the installation of the automation system is anticipated to occur in the fall of 2025, CAA is estimating an increase in cost of 10%.

Zenobia Consultants, in partnership with the UYWCD, had a communications specialist evaluate the automation system communications needs and design for the project. One communication

base station (cellular to spread spectrum radio) will be sufficient for a communication link to all system headgates within the proposed Phase 1 and for future phases, with an estimated cost of $23,000.

The proposed Phase 1 automation effort includes establishment of automation on five existing irrigation headgates and installation of one radio communication base station (see attached photos for visual representation of project scope and ditches proposed for improvement). At all five locations, a communication receiver, solar power battery pack, remote operation electrical motor and associated gear will be installed on the headgate wall to operate the gate screw. Debris racks will be installed in front of each headwall intake in order to prevent damage to the gate and motor that could occur in the event that something interferes with operation of the gate.

The five headgate wall and pipe structures included in Phase 1 require minimal to no modification. In some instances, such as the Fix and Wooley, the wall and gate will be replaced prior to installation of the motor in order to achieve proper mount of the operating equipment. The communication base station requires minimal to no ground disturbance in order to install. The project does not propose to modify the in-stream flow diversion structures. At each location, lowering the headgate pipe elevation will be evaluated. With automated operation and a lower pipe elevation, ditch receiving capacity will be improved. This should alleviate or eliminate the need for more significant, intrusive construction efforts or annual push-up dam construction within the river channel. Trash racks, other construction materials, and site preparation contracting costs for the automation installation on the five headgates are budgeted at $39,975. These costs are typical costs CAA sees in other agriculture diversion projects. It is estimated that CAA requires 260 hours each to support this project, which costs $13,000. CAA will be contracting with Zenobia Consultants and Mr. Peterson to support this project at a cost of 20,140. This brings the total direct cost of the project to $222,615.

Below is a timeline for the proposed implementation of the Phase 1 project

Project Task	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026
WaterSMART Grant Application Review								
Agreement Development								
Award of Funding				★				
DWR Installation of Automated Flow Measurement								
Automation Headgate Design								
Site Preparation and Base Station Installation								
Installation of Automation								

Nexus to Reclamation

Up to **5 points** may be awarded based on the extent that the proposal demonstrates a nexus between the proposed project and a Reclamation project or activity. Describe the nexus between the proposed project and a Reclamation project or activity, including: Is the proposed project connected to a Reclamation project or activity? If so, how? Please consider the following:

- Does the applicant have a water service, repayment, or operations and maintenance(O&M) contract with Reclamation?
- If the applicant is not a Reclamation contractor, does the applicant receive Reclamationwater through a Reclamation contractor or by any other contractual means?
- Will the proposed work benefit a Reclamation Project area or activity?

This project plans to use the BOR Water Project Automation group from the Bureau Provo office to install and automate the irrigation headgates and develop the automation system using their trusted design.

Presidential and Department of the Interior Priorities

Climate Change

Adding automation to the irrigation headgates of the Bear River in the Yampa Basin will address the impacts of climate change by providing consistent control for a complex and naturally dynamic river system. Currently, if water users or DWR need to change one or more headgates, they must physically drive to the diversion point and manually adjust the headgate. In some instances, this can be a twenty-four-mile round trip. Removing the need for this additional driving will reduce the carbon footprint in the Yampa Basin.

Automation will help with water supply sustainability for the Bear River agricultural producers. During the irrigation season, the Bear River flows significantly fluctuate due to both natural and human related factors. The proposed automation will allow multiple irrigation systems to adjust to this fluctuation in real time allowing junior water rights owners to benefit from the delivery of available water that normally would have passed by their diversion. Eventually, having a critical number of headgates automated will allow for available stream flow to remain in the river, eliminating the current dry-up point on the system and allowing for improved river function. The automation will also remove some burden on the UYWCD having to make multiple reservoir release adjustments to deliver storage water to the irrigators in response to the dynamic nature of the system.

In summary a more efficient and responsive irrigation system will add resilience to a system affected by climate change and the changing availability of limited water resources. Projects such as this, will improved water availability condition not only for the users directly benefiting from the project that are served by the ditches included in this proposal, but also upstream and downstream users that will benefit from more efficient water use and the natural environment

through the potential to facilitate delivery of in-stream flow targets to support riparian and aquatic habitats.

Budget Narrative

If awarded, the $100,000 from Small Scale WaterSMART Grant will cover the cost of four of the five headgate automation using the estimated cost $ 23,000 plus 10% from the Water Project Automation group out of the Provo Office. A total cost of $ 126,500 to automate all five headgates. The communication base station is estimated to cost $ 23,000, which will be used by all headgates automated on the Bear River project area within this phase and potential future phases. Other supplies needed for this project using cost from previous projects is estimated to be $ 32,350. Labor cost estimated at the going rate from Yampa contractors need to prepare the sites before the BOR Automation Group can automate the headgates is estimated at 50 hours for backhoe and 65 hours of labor cost for a total of $ 7,625. Contractual engineering support from Zenobia was 104 hours, and 34 hours from Mr. Peterson for a total contractual expense of $ 20,140. CAA is estimating 260 hours for a total personal cost of $13,000 to support the project. This brings the direct total cost of the project to $ 222,615.

Environmental and Cultural Resources Compliance

This project aims to bring automation to agriculture producers on the Bear River, a headwater tributary of the Yampa River. This region has been in agricultural production for over 140 years, with the earliest appropriation date being 1883. Minimal work is planned on the existing headgates and/or headwalls before the BOR Automation Group installs the automation gear. The biggest impact will be transporting the system to each headgate. We understand that wetland permitting will be exempt since this is an upgrade to an agricultural structure. That said, CAA and Zenobia Consultants will coordinate with ACOE regulators in order to provide notice and address any standard conditions deemed necessary. With minimal work and installation requirements with the proposed project, considering that improvements will be contained within the existing disturbance and structure footprint, impacts to the natural environment will be mitigated. These sites are not listed on the National Historic Register, nor would they affect any tribal lands, but SHPO will be consulted through the BOR standard notification process for Small Scale Watersmart grant projects.

Overlap or Duplication of Effort Statement

This is the project's first phase, which will automate the five priority headgates as determined by water user stakeholder engagement by CAA and consultation with DWR and UYWCD. The long-term goal is to phase in additional headgates until at least fifteen of the twenty headgates are automated. Since CAA is a 503C non-profit organization, CAA will look for additional funding through the State of Colorado Water Conservation Board, The Colorado River District, and other local funding sources. The funding cycles of these organizations will allow for secured funding by July 2025.

Matching grants CAA will procure for this project:

Colorado Water Conservation Board (Water Plan Grant), January 2025, with an award in July 2025.

The Colorado River District (Community Funding Partnership), January 2025, with an award in July 2025.

Friends of the Yampa (Yampa River Fund Grant), April 2025, with an award in May 2025.

Conflict of Interest Disclosure Statement

Community Agriculture Alliance, as a 503C non-profit, will follow all conflicts of interest regulations and, as the fiscal agent for this project, does not see or anticipate any conflicts of interest.

Category A Letter of Support

UPPER YAMPA WATER
CONSERVANCY DISTRICT

June 27, 2024

Attn: Nickie McCann
Bureau of Reclamation
Water Resources and Planning Office
Mail Code: 86-63000
P. O. Box 25007
Denver, CO 80225-0007

RE: Category A Applicant Partner with Community Agricultural Alliance WaterSMART Small Scale Water Efficiency Project Grant Application

Dear Nickie McCann:

The Upper Yampa Water Conservancy District (UYWCD) is supporting the Community Agricultural Alliance (CAA) WaterSMART Small Scale Water Efficiency Project Grant Application as the Category A Partner for the Automation of Agriculture Diversion on the Bear River project. As the project Category A Partner, the UYWCD will act in partnership with the CAA by providing guidance and feedback for the project in the form of In-Kind UYWCD staff time contributions. The UYWCD agrees to the application submittal and the content of the application.

The installation of the water use efficiency infrastructure on the Bear River, in Northwest Colorado, proposed in this project aligns with the UYWCD mission to enhance the water resources sustainability of the Yampa River Basin. The UYWCD looks forward to working with the CAA on this important initiative to advance agricultural water management practices on the Bear River reach of the Yampa River system.

Sincerely,

Andy Rossi
General Manager
Upper Yampa Water Conservancy District
P.O. Box 775529
Steamboat Springs, CO 80477
arossi@upperyampawater.com
970-871-1035

UPPER YAMPA WATER
CONSERVANCY DISTRICT

June 27, 2024

Attn: Nickie McCann
Bureau of Reclamation
Water Resources and Planning Office
Mail Code: 86-63000
P. O. Box 25007
Denver, CO 80225-0007

RE: Category A Applicant Partner with Community Agricultural Alliance WaterSMART Small Scale Water Efficiency Project Grant Application

Dear Nickie McCann:

The Upper Yampa Water Conservancy District (UYWCD) is supporting the Community Agricultural Alliance (CAA) WaterSMART Small Scale Water Efficiency Project Grant Application as the Category A Partner for the Automation of Agriculture Diversion on the Bear River project. As the project Category A Partner, the UYWCD will act in partnership with the CAA by providing guidance and feedback for the project in the form of In-Kind UYWCD staff time contributions. The UYWCD agrees to the application submittal and the content of the application.

The installation of the water use efficiency infrastructure on the Bear River, in Northwest Colorado, proposed in this project aligns with the UYWCD mission to enhance the water resources sustainability of the Yampa River Basin. The UYWCD looks forward to working with the CAA on this important initiative to advance agricultural water management practices on the Bear River reach of the Yampa River system.

Sincerely,

Andy Rossi
General Manager
Upper Yampa Water Conservancy District
P.O. Box 775529
Steamboat Springs, CO 80477
arossi@upperyampawater.com
970-871-1035

Example photos of Automation Gear installation on irrigation headgates

Gate Control

Manual Control Panel

Control Module

Buckingham Ditch

Fix Ditch

Wooley Ditch

Mandall Ditch

Acton Ditch

Communication Base Station