

**Bureau Of Reclamation  
WaterSMART Small-Scale Water Efficiency Projects  
For Fiscal Year 2024 and Fiscal Year 2025**

**Bypass Canal Lining Project**



**Applicant**

Upper Wood River Water Users Association (UWRWUA)  
10407 State Highway 75  
Bellevue, Idaho 83313

**Project Manager**

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**Prepared for**

U.S. Department of the Interior, Bureau of Reclamation  
WaterSMART Small - Scale Water Efficiency Grants Fiscal Year 2024 and Fiscal Year 2025  
Notice of Funding Opportunity No. R24AS00059  
July 9, 2024

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### **1. Applicant Information**

Date July 9, 2024

Name Upper Wood River Water Users Association, Inc.

City, County, State Bellevue, Blaine, Idaho

Category A

BOR WaterSMART Small-Scale Water Efficiency Projects Grant Federal Funding Request

\$100,000

Non-Federal Matching Funds \$100,000

Total Project Costs \$200,000

Federal Facility Denotation This project is not located on a federal facility.

### **2. System for Award Management (SAM) and Unique Entity Identifier (UEI)**

The UWRWUA is registered with SAM. The UWRWUA's UEI number is X2ZSQJALYJ67.

### **3. Executive Summary**

The Upper Wood River Water Users Association, Inc. (UWRWUA) in collaboration with Project Big Wood (PBW) seeks funding to line approximately one mile of the Bypass Canal, located in Blaine County, Idaho, to reduce seepage losses and stabilize flows to downstream senior right holders. The project scope includes site preparation, canal recontouring and installation of a cushion and liner in the targeted section of the Bypass Canal. UWRWUA has secured the required match funding from the Conservation, Infrastructure and Efficiency Fund (CIEF) for this BOR WaterSMART Small-Scale Water Efficiency Projects Grant.

The need for this project arises from the excessive seepage loss in this area due to the gravel and rock bed surface on which the Bypass Canal was constructed. Losses can be more than 60% depending on level of flow and distance downstream from the diversion point. A reduction in the seepage loss through lining the Bypass Canal will improve the reliability of water supply to users of the Canal through increased efficiency and will more effectively deliver water to users beyond the dry beds, back to the Big Wood River and downstream to Magic Reservoir. Simultaneously, upstream surface water right holders will benefit from water being delivered later in the irrigation season. Further, through this project the applicant and collaborators aim to potentially reestablish connectivity to Magic Reservoir, thus facilitating improved fish passage in this critical portion of the Big Wood River system.

UWRWUA, an established and current organization with the Idaho Secretary of State, is the manager and operator of the Bypass Canal. The UWRWUA today delivers water to 26 users. UWRWUA constructed the Bypass Canal in 1920 to divert river flows around dry gravel beds where natural river flows disappear beneath ground. UWRWUA funded the construction of the Bypass Canal by selling shares. There are 35,067.5 shares, including shares held by UWRWUA. When the Big Wood River is diverted into the Bypass Canal, water saved by moving flows through the Canal and around the dry beds is deliverable to shareholders per shares owned.

PBW is a local non-profit organization whose mission is to "revitalize the Big Wood River - restoring the heart of our valley as a sustainable ecosystem and thriving fishery." PBW focuses

on “data collection for water quality and river health, community education and advocacy, watershed restoration and activating local pride.”

#### **4. Project Location**

The Bypass Canal Lining Project is in Blaine County, Idaho, approximately 4.5 miles south of Bellevue, Idaho. The Bypass Canal is located along the west side of Highway 75, 3.75 miles north of the Highway 20 and Highway 75 intersection. The GPS coordinates for the start of the project are 43°23'53"N 114°15'38"W and the termination of the project are 43°23'19"N 114°15'46"W. The section, township, and range are SW, SEC24 1N 18E.

Maps illustrating project location can be seen in Attachment A.

#### **5. Technical Project Description**

The UWRWUA proposes to line an approximate one mile section of the Bypass Canal to reduce seepage losses and stabilize flows to downstream senior right holders. The project scope includes two steps. Step One includes site preparation and recontouring of the bed surface of the targeted section of the Canal. Step Two includes the installation of a cushion and liner in the targeted section of the Canal, both steps are explained below in detail. The specified cushion product is an eight ounce nonwoven geotextile cushioning fabric that protects the liner product from the underlying subgrade rock. The specified liner product is a high density polyethylene (HDPE) geomembrane. Attachment J illustrates the detail of Step One and Two. The UWRWUA will contract with Geosynthetic Advisors, LLC to perform both steps included in this project.

##### Step One: Site preparation and recontouring of the bed surface of the Bypass Canal

Site preparation and recontouring of the bed surface of the Bypass Canal will address the following items prior to the installation of the geomembrane system.

- The subgrade will be cleared free of rocks, vegetation, and other potential penetration liabilities in the areas that will be lined. The slopes and floor area of the canal will be contoured to eliminate any abrupt changes that may allow the liner to bridge and lose contact with the subgrade below the liner system.
- The geomembrane liner will be secured by an anchor trench above the high water level of the canal. The anchor trench should be a minimum of 18" wide by 12" deep for the proposed HDPE liner and should be continuous down the length of the canal. During excavation of the trench, care will be made to stockpile the excavated material to the outside of the anchor trench for backfilling, while keeping the inside free of rocks and other sharp materials, which may compromise the liner. A minimum of 1 foot of offset will be allowed from the transition of the canal slope to the anchor trench.
- The HDPE liner will be delivered to the project site in master rolls approximately 24 feet wide by 500 feet in length. The rolls will be stored in a flat staging area and raised off the ground by railroad ties to ensure water and mud do not infiltrate the roll ends. HDPE liner requires the use of heavy equipment capable of lifting the 24 foot wide roll and handling bar apparatus. The equipment will travel parallel to the canal on at least one side for deployment of the liner panels across the canal. Based on this deployment orientation, the use of an excavator capable of lifting 6000 lbs. is mandatory for both ease of installation and limiting the impact of

equipment on the surrounding environment around the canal. This may not always be feasible due to existing structures, power lines, fences, etc. In such cases, the liner contractor will adapt deployment to minimize the impact to these structures and the surrounding area.

- The starting and termination points of the project require the liner to be buried perpendicular to the canal in a continuous modified anchor trench. In order to eliminate the intrusion of water underneath the liner system, these trenches will be dug deeper (4 feet minimum) and wider (2 foot minimum), to allow the liner to remain fixed at these locations.

#### Step Two: HDPE Geomembrane Installation and Quality Assurance Procedures

- Prior to installation, the rolls will be moved to specified locations along the canal to allow quicker reattachment to the excavator. The rolls, once attached to the handling bar and equipment, are oriented perpendicular to the water flow of the canal prior to each panel being pulled out across the canal. As each sheet is deployed, the equipment holding the roll moves along, so that adjacent panels are slightly overlapped for later seam welding. This deployment strategy allows a minimum of waste to be created as the canal changes direction and shape over the course of the impoundment.
- The seaming, or welding, of the liner panels is accomplished by a thermal fusion device known as a wedge welder. This wedge welder is self-propelled with regulating controls of both speed and temperature. These parameters are adjusted and tested on a daily basis for weld strength in both peel and shear tensile strengths for the particular liner material being used, prior to the start of installation. As environmental conditions change during the course of installation, it is often necessary to retest welders in order to maintain consistent welding results. The seaming procedure and deployment of liner panels can be limited or halted by factors such as precipitation and high winds. The incorporation of water removal techniques, sandbags, and seam cleaning measures are commonly utilized.
- The need to repair the liner may be necessary due to welder damage at the seam, or other damage that has penetrated the liner material. A repair in HDPE liner is accomplished by covering the damaged area of the liner with a patch larger than the damaged portion. This patch is first tacked to the parent material with a hand-held air welder. Once secured to the liner, a different welding device, known as an extrusion welder, delivers a bead of HDPE extrudate around the perimeter of the patch, completely sealing the patch to the parent material.
- Once panels have been welded together and visually inspected, it is necessary to secure the liner by partially filling the anchor trench on both sides of the canal throughout the day. This prevents wind from lifting and damaging the liner. It is often necessary to have a skid steer or small excavator dedicated to this process throughout the installation. On canal projects where the liner is designed to be left exposed, it is often necessary to place additional backfill material down the slope and across the floor in periodic locations to prevent wind uplift, prior to use during the irrigation season.

## 6. Evaluation Criteria

### a. Evaluation Criterion A: Project Benefits (35 points)

- *Will the project result in more efficient management of the water supply?*

This project will result in more efficient management of water supply in the area by delivering senior right holders' water longer into the irrigation season. The water saved by this lining project will deliver more water later in season by decreasing the high seepage losses associated with this stretch of the Bypass Canal.

- *Where any conserved water as a result of the project will go and how it will be used?*

The conserved water as a result of this project will benefit all users on the surface water delivery systems upstream of the project. As water supply from the Big Wood River diminishes, all diversions upstream of the Bypass Canal are cut in order to deliver the large senior water right at the very end of the Canal. The diversions upstream include- Baseline Canal, Glendale Canal, District 45 Canal and the Hiawatha Canal. The hundreds on all of these diversions will benefit from improved delivery on the Bypass Canal. The Hiawatha Canal (the furthest north) now serves small farms and some residential amenities. The water users on the other canals are irrigating pasture and farms growing primarily alfalfa and malt barley.

- *Are customers not currently getting their full water right at certain times of year?*

Water users in this area are wholly reliant on snow melt water out of the upstream mountains as there is not a reservoir above these water users. On an average water supply year, users will have their first water cuts around the first of July. Cuts will continue through the summer in order to furnish the senior water rights at the end of the Bypass Canal. On very good water supply years, even the most junior right holders may have water most of the summer where on poor water supply years, they may receive little to no surface water at all.

- *Does this project have the potential to prevent lawsuits or water calls?*

CIEF, the fund which has committed the required non-federal match funding, is a result of a ground water curtailment in 2021 and three years of subsequent litigation. The basin is currently operating under a three year state approved ground water management plan. In this plan municipalities mitigate for their water use by paying into the CIEF to support canal efficiency projects. Infrastructure projects like this will enable the management plan to work and thus avoiding further water calls and lawsuits.

- *What are the consequences of not making the improvement?*

Not making any improvements to the system will result in the many users throughout the Wood River Valley continuing to suffer cuts in order to furnish the most senior rights at the end of a canal with high losses.

- *Are customer water restrictions currently required?*

Restrictions in the form of water cuts are required nearly every year in order to allow flows to reach the senior water right holders at the end of the Bypass Canal.

- *Will the project improve broader water supply reliability at sub-basin or basin scale?*

Yes, this project will improve water supply reliability at the sub-basin scale.

- *Will the proposed project increase collaboration and information sharing among water managers in the region? Please explain.*

Yes, this project will increase collaboration and information sharing among water managers in the region. This will be accomplished through the use of eight data loggers that have been installed along the Bypass Canal to collect water flow data in the Canal throughout the year.

This data will be used by water managers in the region to help inform decisions ongoing. The data loggers are not part of this grant proposal yet they were installed as part of this effort and will be used to determine outcomes and results of the project.

- *Is the project in an area that is experiencing, or recently experienced, drought or water scarcity? Will the project help address drought conditions at the sub-basin or basin scale? Please explain.*

Ground water users experienced the first water calls in 2014 and 2016 from senior surface users on the Big Wood River below Magic Reservoir and lower Little Wood River users. Both of these calls were dismissed. After sequential extraordinarily dry years in 2020 and 2021 the Idaho Department of Water Resources (IDWR) stepped in and curtailed all ground water pumping in the south end of the Wood River Valley. A hearing at IDWR ensued and a short term agreement was made.

- *Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)? Please explain.*

This project will benefit native trout populations on Silver Creek and the Big Wood River by reducing losses into the dry beds.

- *Will the proposed project positively impacts/benefit various sectors and economies within the applicable geographic area (e.g., impacts to agriculture, environment, recreation, and tourism)? Please explain.*

This project will directly support farm and ranch operations throughout the area. By delivering surface water longer it will make farms less reliant on ground water pumping and lessen impacts to the aquifer. The water not lost to evapotranspiration will percolate into the aquifer which supplies all the eight tributaries which form Silver Creek. Silver Creek is a spring fed blue ribbon trout stream which draws national and international visitors. The greater the diversion rates onto the farms which this project allows for charges the aquifer which is the supply for sustained Silver Creek flows.

- *Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the district's water supply)? Please explain.*

There are multiple NRCS Wetland Reserve Program easements in the region where this project is proposed. These easements will benefit through increased water supply resulting from this project.

#### **b. Evaluation Criterion B: Planning Efforts Supporting the Project (30 points)**

- *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?*

This project directly supports the Big Wood River Ground Water Management Area Management Plan of April 29, 2022 which the basin is currently operating under. The Management plan is a negotiated agreement between junior ground water users and senior surface water users codified by IDWR. This Management Plan contains water management actions intended to manage the effects of ground water withdrawals in the aquifer by reducing ongoing consumptive uses of water, augmenting water supply and improving water use

efficiency. The project will help to decrease reliance on ground water and improve delivery of surface water- both tenants of the Management 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.*

The plan was not developed solely by the Category A applicant. The planning effort was developed by junior ground water users and senior surface water users along with municipalities in the region and with IDWR. The Category A applicant's project manager was involved in developing the plan in his capacity as Chairman of the South Valley Ground Water District who represents the largest group of ground water pumpers in the area. The South Valley Ground Water District played a significant role in the negotiation and creation of the Big Wood River Ground Water Management Area - Management Plan.

- *Support for the Project: Describe to what extent the proposed project is supported by the identified plan. Is the project identified specifically by name and location in the planning effort?*

No, this project is not specifically named in the Big Wood River Ground Water Management Area - Management Plan.

- *Is this type of project identified in the planning effort?*

Yes, the Big Wood River Ground Water Management Area - Management Plan calls for projects that increase water delivery efficiency and that reduce ground water pumping, both of which this project will provide.

- *Explain whether the proposed project implement a goal, objective, or address a need or problem identified in the existing planning effort?*

This project addresses the needs stated in the Management Plan to decrease ground water pumping and improve water use efficiencies.

- *Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.*

This project became the preferred location as it provides the biggest benefit to the greatest number of water users. In this location, this project will support surface water users and delay ground water use.

### **c. Evaluation Criterion C: Implementation and Results (20 points)**

- *Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.*

UWRWUA and PBW began working to secure grant funding for this project throughout the winter and early spring of 2024. In conjunction with this project, data loggers along the Bypass Canal were installed in the early spring of 2024. Data collection commenced in the spring and will continue through the fall of 2024. Typical water delivery will occur through the spring, summer and fall of 2024. Contingent upon funding, construction staging and site preparation work and installation will take place in the spring of 2025. The project will be completed in the early summer of 2025 prior to the irrigation season when typical water delivery will occur. Significant milestones of this project include: notification of grant award from CIEF, data logger/flow monitoring device installation, beginning of data logging, notification of grant



award from BOR- SWEP, construction staging, beginning of prep work, liner installation, and project completion.

#### Timeline and Milestone Table

Bypass Canal Lining Project							
Activity	Winter 2024	Spring 2024	Summer 2024	Fall 2024	Winter 2025	Spring 2025	Summer 2025
Grant Solicitation							
Data Logger Installment							
Data Collection							
Typical Water Delivery							
Construction Staging							
Canal Prep Work							
Canal Lining							
Completion							
Milestones	*		*		*		*
	CIEF grant award		BOR-SWEP notification		Liner installation		Project completion
	Data logger install		Construction staging				
	Data logging begins		Prep work begins				

• Describe any permits and agency approvals that will be required along with the process and timeframe for obtaining such permits or approvals.

None required.

• Identify and describe any engineering or design work performed specifically in support of the proposed project.

None required.

• Does the applicant have access to the land or water source where the project is located? Has the applicant obtained any easements that are required for the project? If the applicant does not yet have permission to access the project location, describe the process and timeframe for obtaining such permission.

Yes, the applicant and contractor have secured access to the section of the Bypass Canal targeted in this project as well as to the land adjacent to the targeted section. Additionally, the applicant has secured permission from an adjacent landowner for a construction staging area. Further, all landowners along the targeted section of the Canal have been contacted and are supportive of this project.

• Identify whether the applicant has contacted the local Reclamation office to discuss the potential environmental and cultural resource compliance requirements for the project and the associated costs. Has a line item been included in the budget for costs associated with compliance? If a contractor will need to complete some of the compliance activities, separate line items should be included in the budget for Reclamation's costs and the contractor's costs.

Yes, the applicant has contacted the local Reclamation office located in Boise, Idaho and has submitted the NEPA compliance document that addresses the potential environmental and cultural resource compliance requirements for the project and the associated costs. A line item for the associated costs of NEPA compliance is included in the Project Budget herein.

#### d. Evaluation Criterion D: Nexus to Reclamation (5 points)

• Is the proposed project connected to a Reclamation project or activity?

No, this project is not connected to a Reclamation project or activity.

**e. Evaluation Criterion E: Presidential and Dept. of the Interior Priorities (10 points)**

**i. Sub-criterion No E1.: Climate Change**

- *Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis. Does this proposed project strengthen water supply sustainability to increase resilience to climate change?*

In a region experiencing increased drought frequency due to climate change, lining canals contributes to water supply sustainability through significantly reducing water seepage into the ground. By conserving water, more becomes available for agricultural, industrial, and domestic use, reducing the need for water extraction from natural sources. Further, improved efficiency in water delivery means less water is wasted. Efficient water delivery systems require less energy for pumping water over long distances which reduces the overall energy consumption and associated greenhouse gas emissions from energy production. Lined canals require less maintenance and thus lower maintenance energy costs.

Lined canals enhance agricultural resilience. Efficient water delivery supports consistent and reliable irrigation, which is essential for maintaining crop yields.

Lined canals also help to reduce environmental degradation through helping to prevent soil erosion along the canal banks, protecting the surrounding land and maintaining soil health, which is vital for sustainable agriculture and carbon sequestration. Efficient water use and reduced losses can help maintain streamflows and wetland areas, supporting aquatic ecosystems and biodiversity. Well-maintained and efficient water infrastructure is better able to withstand extreme weather events, such as heavy rains and floods, which are expected to increase in frequency and intensity due to climate change. Lining canals is part of broader water management strategies that promote sustainable use and management of water resources in the face of climate variability and long-term changes.

- *Does the proposed project contribute to climate change resiliency in other ways not described above?*

Lining canals enhances climate change resiliency by securing water resources, supporting agricultural productivity, protecting ecosystems, ensuring infrastructure durability, improving energy efficiency, promoting economic stability, and safeguarding public health and safety. These benefits collectively strengthen the ability of communities and ecosystems to adapt and thrive despite the challenges posed by climate change.

**ii. Sub-criterion No E2.: Disadvantaged or Underserved Communities**

- *Describe how the project benefits disadvantaged or underserved communities.*

While the Climate and Economic Justice Screening Tool does not highlight the region in which this project will occur as having disadvantaged or underserved communities, in reality there are populations in need in the region that stand to benefit from this project. Many of the agricultural workers in the region are latinx who are an underserved population in the area. This project addresses this community within Blaine County through enhancing agricultural stability thereby increasing the reliability of jobs in the sector. Increased agricultural productivity can lead to higher incomes, better livelihoods, a more robust local economy and provides economic growth opportunities. Additionally, this project will help to increase the water supply downstream in the Big Wood River where two important recreational areas for the

community exist. Stanton's Crossing and Magic Reservoir are frequented by all in the community for a variety of recreational activities including fishing, boating, and bird watching.

### **iii. Sub-criterion No E3.: Tribal Benefits**

- *Does the proposed project directly serve and/or benefit a Tribe?*

The State of Idaho has an obligation to Indigenous Peoples to maintain an adequate water supply in its waterways. Through reducing seepage losses and enhancing water supply on the Big Wood River, a tributary of the Malad, Snake and Columbia Rivers, this project supports and contributes to a more reliable water supply in the State's waterways.

## **7. Environmental and Cultural Resource Compliance**

The applicant has reached out to the Bureau of Reclamation Snake River Area Office. They estimate a Categorical Exclusion as the level of NEPA necessary. A Cultural Resources investigation will be needed to confer with the Idaho State Historical Office. Due to the workload of the local USBR office it is recommended that the applicant include in the project budget a line to hire an outside contractor to complete the necessary fieldwork. The NEPA field compliance work will be performed by a contractor to be hired by UWRWUA as recommended by the Bureau of Reclamation Snake River Area Office.

- *Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)?*

The proposed project and necessary construction will not have any adverse or additional impact to the air, water, and animal habitat in the project area and surrounding environment. All lining construction efforts will be limited and confined to the targeted section of the canal and its immediate banks thereby not disturbing any surrounding area or 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?* No.
- *Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States"?* No.
- *When was the water delivery system constructed?* 1920.
- *Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)?* No.
- *Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?* No.
- *Are there any known archeological sites in the proposed project area?* No.
- *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.

## **8. Required Permits or Approvals**

There are not any permits required for this project.

The applicant has secured the necessary approvals from the manager and operator of the Bypass Canal, the UWRWUA, as well as adjacent landowners along the targeted section of the Canal.

## 9. Project Budget

### a. Budget Narrative

The total project budget is \$200,000.

This total budget includes all costs required to complete the project inclusive of the required NEPA field compliance work of \$5,000 and the selected contractor's cost of \$195,000 to perform steps one and two detailed in the Technical Project Description in section 5 above. Step one which includes site preparation and canal recontouring represents \$36,699.60 of the contractor's \$195,000; and step two which includes the materials, mobilization and installation costs of both the cushion and liner represent the remaining \$158,300 of the \$195,000. All costs associated with steps one and two can be seen in detail in the Geosynthetic Advisors, LLC quote in Attachment K.

The entirety of this project will be contracted out to reputable regional contractors.

Geosynthetic Advisors, LLC will be hired by the UWRWUA to conduct all work in steps one and two described in the Technical Project Description, section 5. Geosynthetic Advisors, LLC have been selected because of their track record for doing quality and timely work throughout the Pacific Northwest. They have installed over 150,000,000 sq. ft. of geo-membranes over the last 30 years. Geosynthetic Advisors quote for all work can be seen in Attachment K.

The NEPA field compliance work will be performed by a contractor recommended by the Bureau of Reclamation Snake River Area Office and hired by UWRWUA.

Further budget detail can be seen in Attachment L.

### b. Funding Plan

To fund this \$200,000 project, the applicant has secured a \$100,000 non-federal matching grant from the Conservation Infrastructure Efficiency Fund (CIEF) and is applying for a Bureau of Reclamation's WaterSMART Small-Scale Water Efficiency Projects federal grant of \$100,000. Further budget detail can be seen in Attachment L.

### c. Budget Proposal

Bypass Canal Lining Project	
<b>Project Funding:</b>	
Conservation Infrastructure Efficiency Fund (Non-Federal)	\$100,000
BOR WaterSMART SWEP Grant (Federal)	\$100,000
<b>Total Funding:</b>	<b>\$200,000</b>
<b>Project Costs:</b>	
NEPA Compliance	\$5,000
Site prep./recontouring and geomembrane installation/quality assurance	\$195,000
<b>Total Costs:</b>	<b>\$ 200,000</b>

Further budget detail can be seen in Attachments K and L.

## **10. Attachments**

Attachment A - Project Location Maps

Attachment B - Board Resolution - Upper Wood River Water Users Association, Inc.

Attachment C - UWRWUA Board of Directors Meeting Minutes from April 26, 2024

Attachment D - Letter of Consent - Upper Wood River Water Users Association, Inc.

Attachment E - Letter of Funding Commitment - Conservation Infrastructure Efficiency Fund

Attachment F - Letter of Support - Baseline Canal Association

Attachment G - Letter of Support - Sharon Lee, Wood River Ranch, Owner

Attachment H - Letter of Support - Triangle Irrigation District

Attachment I - Letter of Support - Wood River Valley Irrigation District (WRVID) #45

Attachment J - Geosynthetic Advisors, LLC: Single Liner-Geotex Detail for Canal

Attachment K - Geosynthetic Advisors, LLC: Quote

Attachment L - Project Budget applicable worksheets

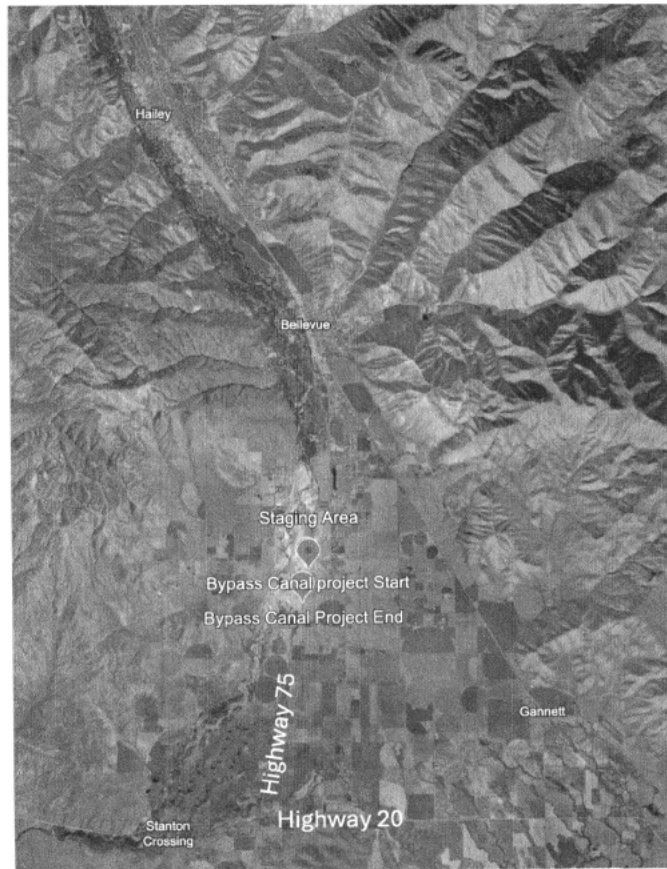
## Attachment A

Project Location - Idaho Map



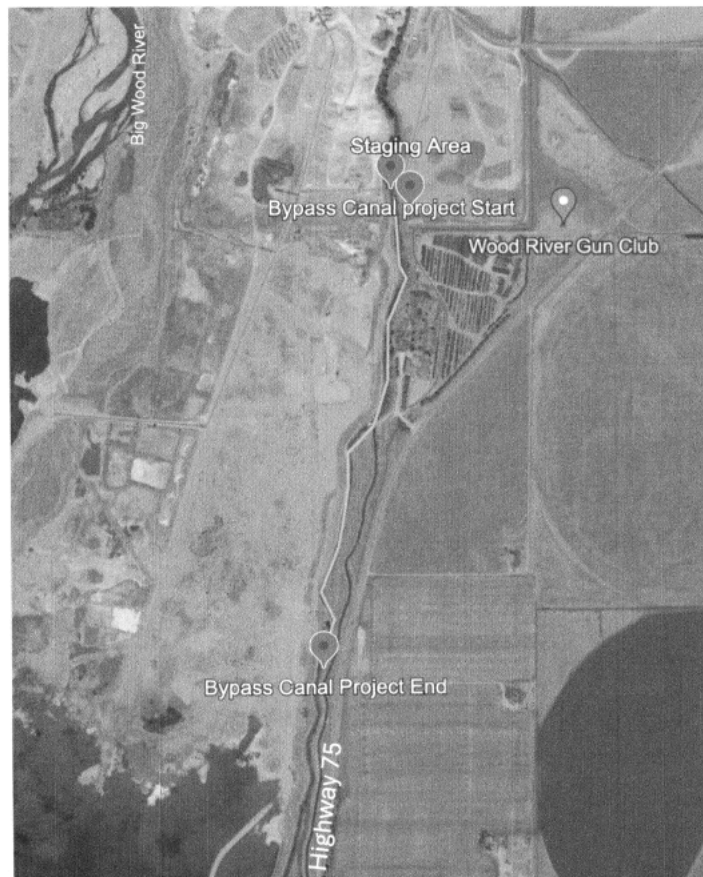
## Attachment A

Project Location - Area Map



## Attachment A

Project Location - Project Map





**Attachment B**

Upper Wood River Water Users Association  
10407 Highway 75  
Bellevue, Idaho 83313

April 26, 2024

**BOARD RESOLUTION**

**Title:** Resolution to conduct Bypass Canal lining project

**Preamble:**

The Upper Wood River Water Users Association (UWRWUA) in collaboration with Project Big Wood (PBW), intends to line a portion of the Bypass Canal located along the west side of Highway 75, approximately four miles north of the Highway 20 and 75 intersection in Blaine County, Idaho. The nature of the soil in this location lends itself to high seepage losses. The goal of the ditch lining project is to minimize ditch loss and to deliver downstream senior surface water rights more efficiently. To achieve this goal UWRWUA and PBW seek funding from the Conservation Infrastructure Efficiency Fund (CIEF) and Bureau of Reclamation WaterSMART Small Scale Water Efficiency Grant program to gather flow data, perform all necessary canal preparation work, and to install approximately 3,500 linear feet of canal liner. Measurement devices installed by PBW in April 2024, are currently being used to collect flow rate data and information to gauge seepage losses and locations. UWRWUA and PBW will contract with Bob Analora of Geosynthetic Advisors and Tom Darland of Darland Skid Steer, LLC perform all necessary work to complete the project. The total cost for the project will be approximately \$200,000. UWRWUA and PBW is applying for a \$100,000 grant from CIEF and a \$100,000 matching grant from the Bureau of Reclamation WaterSMART Small Scale Water Efficiency Grant program. For this project, Justin Stevenson, a shareholder of UWRWUA, will be acting as the official representative for UWRWUA.

**WHEREAS**, the nature of the soil in this location lends itself to high seepage losses.

**WHEREAS**, the goal of the canal lining project is to minimize ditch loss and to deliver downstream senior surface water rights more efficiently.

**WHEREAS**, funding from CIEF and Bureau of Reclamation WaterSMART Small Scale Water Efficiency Grant program is necessary for the completion of this project.

**WHEREAS**, Justin Stevenson, a shareholder of UWRWUA, will be acting as the official representative for UWRWUA.

**Resolution Clause:**

The Board of Directors of the UWRWUA moves to install 3,500 linear feet of geosynthetic lining in the Bypass Canal to decrease seepage losses.

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Directors of UWRWUA hereby moves to approve all flow data collection, preparation work and the installation of 3,500 linear feet of lining in the Bypass Canal.

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**Attachment B**


**FURTHER RESOLVED**, that Justin Stevenson and PBW have our authorization to move forward with applying for funding from CIEF and Bureau of Reclamation WaterSMART Small Scale Water Efficiency Grant program for this project. Additionally, Justin Stevenson and PBW have our authorization to gather flow data and to work with Geosynthetic Advisors and Tom Darland to complete all necessary work for this project.

**Signature Block:**

We, the undersigned members of the Board of Directors of UWRWUA, hereby certify that the above resolution was duly adopted at a meeting of the board held on April 26, 2024.



Dan Brown, President, April 26, 2024



Rocky Sherbine, Director, April 26, 2024



John Molyneux, Director, April 26, 2024



Kristy Molyneux, Secretary, April 26, 2024



Justin Stevenson, Representative, April 26, 2024

**Secretary's Attestation:**

I, the undersigned, hereby certify that I am the Secretary of UWRWUA and that the above resolution is a true and accurate record of the resolution adopted by the Board of Directors at a meeting held on April 26, 2024.



Kristy Molyneux, Secretary, April 26, 2024

## Attachment C

### Minutes of Meeting

Upper Wood River Water Users Association, Inc.

Board of Directors

April 26, 2024 1:30 P.M.

Attendees: Dan Brown, President; John Molyneux, Director; Rocky Sherbine, Director; and Kristy Molyneux, Secretary/Treasurer

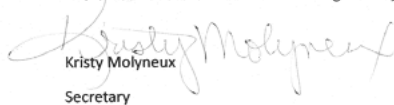
Meeting was called to order at 1:35 p.m.

#### New Business:

Discussion of proposed project to line a portion of the By-Pass Canal. Justin Stevenson, shareholder, has researched the possibility of funding a project to line approximately a mile of the By-Pass Canal on the southern end. He suggests that the project may cost up to \$200,000. One half would be paid for by the CIEF Fund (Conservation, Infrastructure Efficiency Fund created by the current management plan for groundwater). The remaining one-half would be applied for in a BOR WaterSmart Grant. If the grants are not awarded the project would not be pursued. Justin has agreed to manage the paperwork and presentations for the grant applications. The board unanimously agreed to support the project and execute authority to Justin.

Also discussed was the request for an additional diversion by Idaho Foundation for Parks and Lands. They are re-routing the delivery of their decreed water and IDWR requests approval from the association should they want to delivery their shares in the future. Charles Brockway is the project manager and has supplied a Consent Form to be executed for IDWR. Consent Form was approved by the board and will be signed and returned to Mr. Brockway.

There was no further business. Meeting was adjourned at 2: 30 pm.

  
Kristy Molyneux  
Secretary

**Attachment D**

UPPER WOOD RIVER WATER USERS ASSOCIATION

10407 HIGHWAY 75

BELLEVUE, ID 83313

April 26, 2024

To Whom it May Concern

Upper Wood River Water Users Association, Inc., an Idaho corporation consents to the proposed project of lining approximately one mile of ditch known as The By-Pass Canal, subject to funding approval of the Conservation Infrastructure Efficiency Fund (CIEF) and BOR Water Smart grants. This project will be evaluated in irrigation season 2023 to verify location of the lining. The lining is proposed to be completed prior to 2025 irrigation season.

Justin Stevenson, a shareholder in the association, is hereby given authority to pursue funding for the lining project through grants with CIEF and BOR WaterSmart programs. He is authorized to execute on behalf of Upper Wood River Water Users Association, Inc. any and all papers required to complete applications for said grants.

Upper Wood River Water Users Association, Inc.

BY: 

Dan Brown, President

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**Attachment E**

Conservation, Infrastructure & Efficiency Fund Committee  
c/o Wood River RC&D  
141 Seventh Avenue East  
Gooding, Idaho 83330  
woodriverrcandd@yahoo.com

U.S. Department of the Interior  
Bureau of Reclamation  
WaterSMART Small-Scale Water Efficiency Grants FY2024 & FY2025  
Notice of Funding Opportunity No. R24AS00059

Re: WaterSMART Grant application support  
Bypass Canal Lining Project, Blaine County, Idaho

To Whom it May Concern:

This letter represents to you a preliminary funding commitment by the Conservation, Infrastructure and Efficiency Fund (CIEF) Committee to provide \$100,000 in matching support for a U.S. Department of the Interior, Bureau of Reclamation, WaterSMART Small-Scale Water Efficiency Grant for Fiscal Year 2024 and Fiscal Year 2025 application by the Upper Wood River Water Users Association for \$100,000 for the Association's Bypass Canal Lining Project.

The CIEF Committee supports this project to line the Bypass Canal, pending results of a current investigation of canal seepage. The lining project will result in reduced seepage losses along a targeted section or sections of the Canal. The Committee believes this reduced seepage will result in the ability to deliver senior surface water rights more efficiently, thereby benefiting all users of the system.

Sincerely,



Lawrence Schoen  
Chairman, CIEF Committee  
Telephone: 208.727.9580  
E-mail: lschoen@naramail.net

**Attachment F**

June 15<sup>th</sup>, 2024

To: Bureau of Reclamation WaterSMART Committee  
From: Baseline Canal Association

Dear BOR WaterSMART Committee,

The board of directors for the Baseline Canal Association support the Upper Wood River Water Users Association's application to the Bureau of Reclamation WaterSMART Committee for the funding of a canal lining project on the Bypass canal. We understand that decreasing the canal seepage in the Bypass will more efficiently deliver senior surface water rights to those on the system. The board further realizes that an increased efficiency on the Bypass system could benefit other surface water users up stream of the Bypass. Therefore, we would like to show our support of this application to the Bureau of Reclamation WaterSMART Committee.

Thank You,



Rocky Sherbine, Board Chair



Justin Stevenson, Board member

## Attachment G

June 20, 2024

To: Bureau of Reclamation WaterSMART Committee

From: Sharon Lee, Wood River Ranch, Owner

Dear BOR WaterSMART Small Scale Water Efficiency Grant Committee,

The Upper Wood River Water Users Association has my full support in applying to the Bureau of Reclamation WaterSMART Small Scale Water Efficiency Grant Committee for funding to line the Bypass Canal located along Highway 75 in Blaine County, Idaho. Wood River Ranch, of which I am the owner, has water rights delivered by the Bypass Canal. Canal seepage on this ditch is significant, upwards of 60%, as shown by a study done in 2019 by USGS. It is clear that decreasing canal seepage in the Bypass Canal by lining it will result in more efficient and effective delivery of senior surface water rights on the system. Further, increased efficiency on the Bypass system could benefit other surface water users upstream of the Bypass Canal as well as those downstream. As such, I would like to show my support of the project and of the application to the Bureau of Reclamation WaterSMART Small Scale Water Efficiency Grant Committee.

Thank You,



Sharon Lee, Wood River Ranch, Owner

**Attachment H**

April 22, 2024

To: CIEF Committee  
From: Triangle Irrigation District

Dear CIEF Committee,

The board of directors for the Triangle Irrigation District support the Upper Wood River Water Users Association's application to the CIEF Committee for the funding of a canal lining project on the Bypass canal. We understand that decreasing the canal seepage in the Bypass will more efficiently deliver senior surface water rights to those on the system. The board further realizes that an increased efficiency on the Bypass system could benefit other surface water users up stream of the Bypass. Therefore, we would like to show our support of this application to the CIEF Committee.

Thank You,



Sarah Gardner, TID Board Member



**Attachment I**

June 4, 2024

To: Bureau of Reclamation WaterSMART Committee

From: Wood River Valley Irrigation District (WRVID) #45

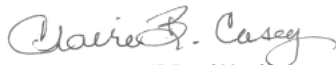
Dear Bureau of Reclamation WaterSMART Small Scale Water Efficiency Grants Committee,

The Board of Directors for the Wood River Valley Irrigation District #45 support the upper Wood River Water Users Association grant application to the BOR WaterSMART Small Scale Water Efficiency grants committee for the funding of a canal lining project on the Bypass canal. We understand that decreasing the canal seepage in the Bypass will more efficiently deliver senior surface water rights to those on the system. The Board further realizes that an increased efficiency on the Bypass system could benefit other surface water users upstream of the Bypass. Therefore, we would like to show our support for this application to the BOR WaterSMART grants committee.

Thank you,



Greg Clark, WRVID Board Member



Claire Casey, WRVID Board Member

Geosynthetic Advisors, LLC  
Single Layer Liner with Geotextile Underlayment

