

Boise Project Board of Control

Automation of the Arena Canal and Arena Lake Drain



Application for:

WaterSmart Grants: Small-Scale Water Efficiency Projects

Notice of Funding Opportunity No. R22AS00195

April 28, 2022

Submitted by:

Boise Project Board of Control
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Executive Summary

Date: April 28, 2022
Applicant Name: Boise Project Board of Control
Applicant City, State: Boise, Idaho
Category: Category: A
Project Title: Automation of Arena Canal and Arena Lake Drain
County of Project: Canyon County

Boise Project Board of Control, located in southwest Idaho, will automate gates at the headworks of Arena Lake Drain and the Arena Canal. The funding will be used to automate one of the three manual 24 inch flat sided gates on the headworks of the Arena Canal and install an automated gate (currently controlled with checkboards) on the Arena Lake Drain. A weir and transducer will also be constructed on the Arena Lake Drain approximately 2,100 feet down from the headgate. The gates will be connected to a Supervisory Control and Data Acquisition system to provide remote sensing and control of the gate operations.

The goal of the project is to stabilize and keep the Arena Canal at a steady height; to control flows and conserve water at the headworks of the Arena Lake Drain; to improve efficiency of use of the water in the irrigation system; and to prevent loss from spills and over flows. The SCADA system will provide real-time data to managers, which will control water loss, prevent damage, and provide enough head pressure to make deliveries to the water users on the Arena Canal and Arena Lake Drain. The proposed project is expected to begin in November 2022 with fabrication off site with installation onsite in April 2023. The Arena Canal and Arena Lake Drain are USBR federal facilities, operated and maintained by the Boise Project Board of Control.

Background Data

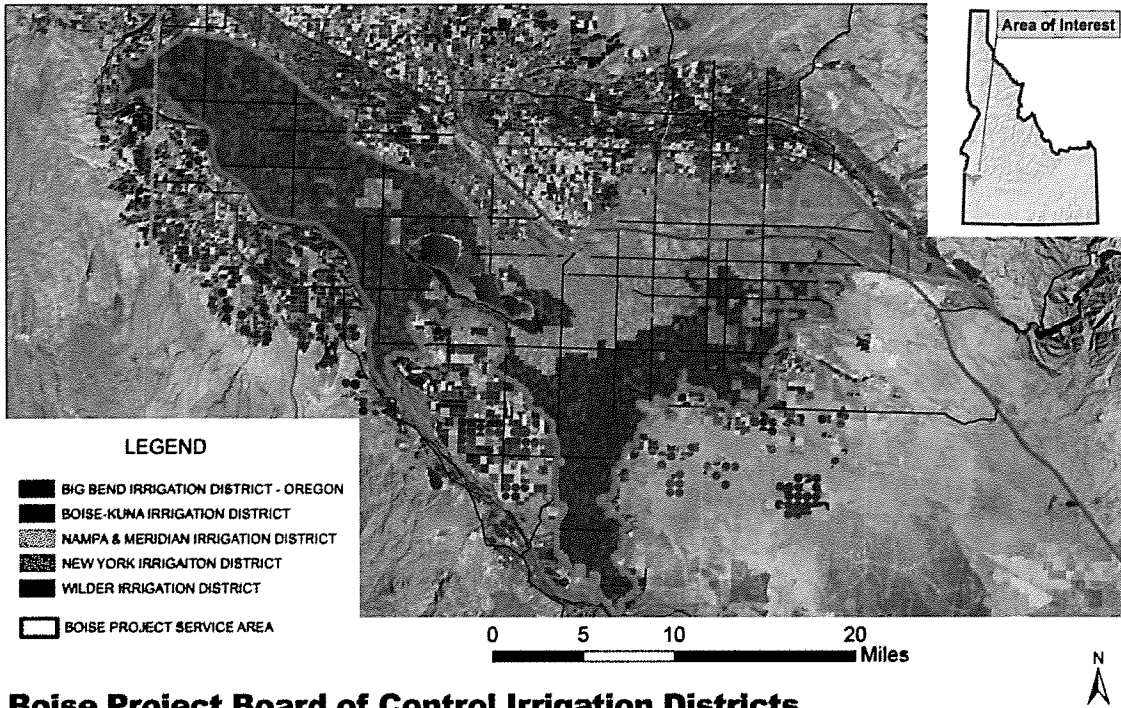
Boise Project Board of Control

The Boise Project Board of Control delivers irrigation water on behalf of five (5) irrigation districts established in the early 20th Century to serve irrigators with waters made possible by the development of the Arrowrock Division of the Boise Project by the United States Department of Interior, Bureau of Reclamation (USBR). The five districts consist of:

- Big Bend Irrigation District (Malheur County, OR)
- Boise-Kuna Irrigation District (Ada and Canyon Counties, ID)
- Nampa-Meridian Irrigation District (Ada and Canyon Counties, ID)
- New York Irrigation District (Ada County, ID)
- Wilder Irrigation District (Canyon County, ID)

BPBC delivers irrigation water to approximately 167,000 acres from both Boise River rights and reservoir storage rights in Anderson and Arrowrock Reservoirs held by the USBR in trust for the Districts. The delivery system comprises of over 1,500 miles of canals, laterals and sub-laterals, more than 10,000 individual structures including headgates and check structures, and is operated

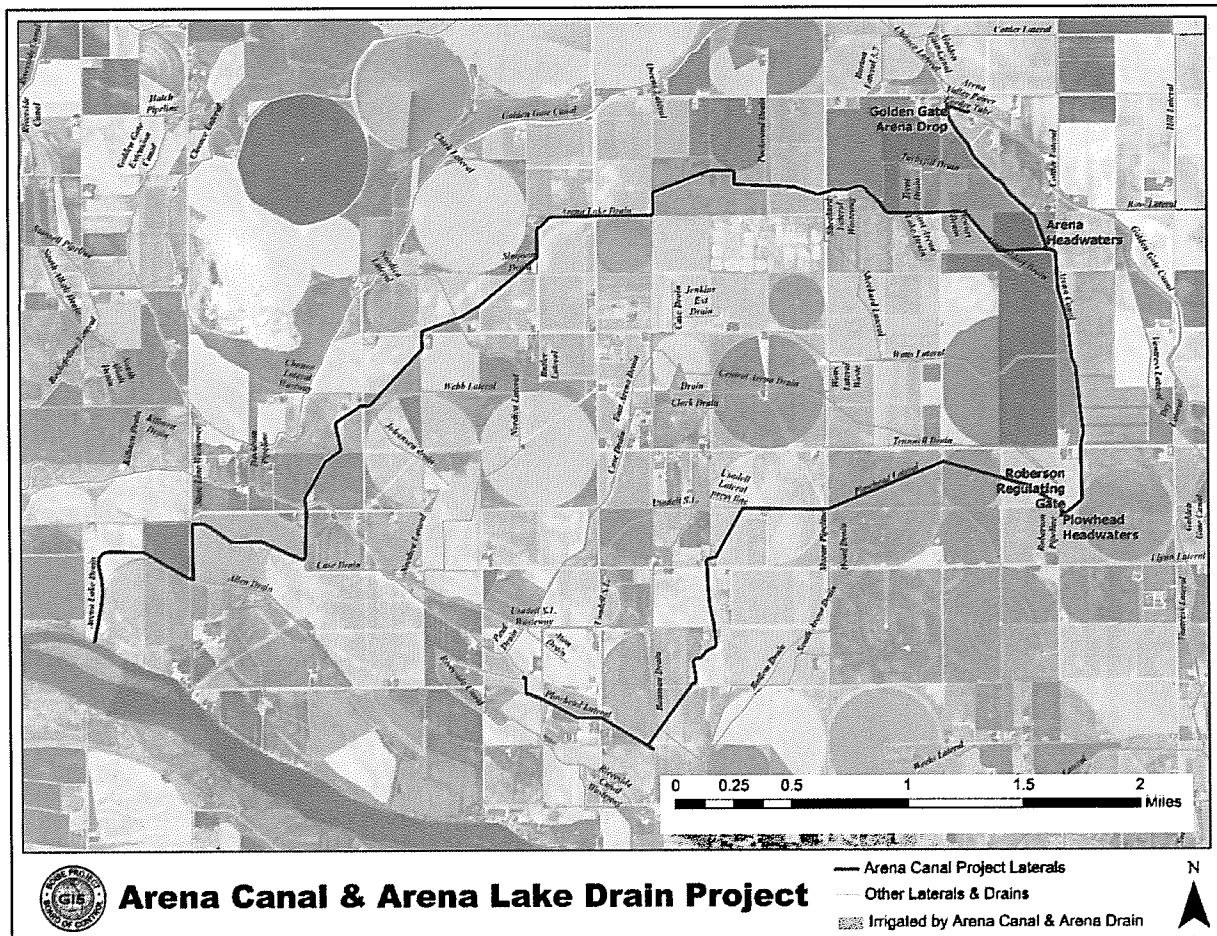
by a full-time staff of approximately 100 dedicated employees. BPBC currently has 25 automated headwaters and 3 automated check structures. Improvements on the canals and laterals are done on a yearly basis and including but not limited to piping, lining and recleaning.



Approximately 30,000 users are served by BPBC. The major crops irrigated by the Boise Project Board of Control consists of alfalfa hay, wheat, sugar beets, hops, corn, onion, mint, lavender, apples, grapes and pasture. There are also many dairy farms and livestock facilities in the area that use the irrigated grains to feed their animals. Along with the agricultural use, residents in the urbanized areas use water for lawn and garden irrigation. Though the main canals and laterals are open channels, there is a diverse mix of ditches, gravity irrigation pipelines, pressurized pipelines and pressurized sprinkler systems throughout the project.

The Boise Project Board of Control delivery system begins with the New York Canal, approximately 7 miles southeast of Boise, is over 40 miles long and was designed to deliver a capacity of approximately 2800 cfs of surface irrigation water, with a large portion delivered to Lake Lowell, an off-stream reservoir further downstream.

BPBC was formed to operate and maintain federally financed and owned facilities built under the Reclamation Act of August 30, 1890 and would not exist apart from the efforts of the Federal Government. Its entire history is closely intertwined with the USBR. It was created by the forerunner of the USBR to operate and maintain the federal facilities constructed as part of the Boise Project on behalf of the five irrigation districts established as part of the Boise Project. Irrigation of the lands that BPBC serves would not be possible without the reservoir storage made possible by the Arrowrock and Anderson Ranch reclamation projects.



Project Location

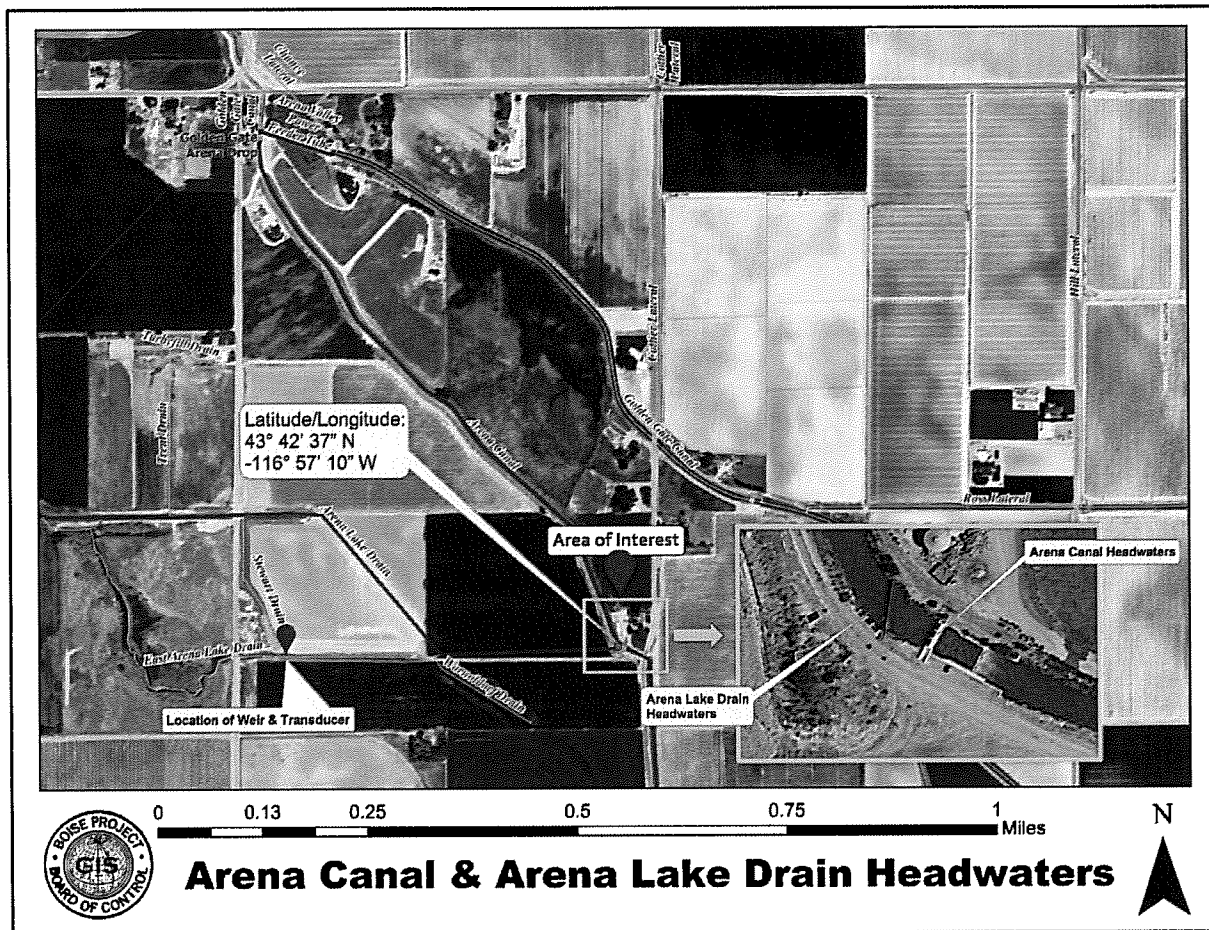
The headworks of the Arena Lake Drain and Arena Canal are located in Canyon County, Idaho, northwest of Wilder, Idaho. The project latitude is 43°42'37" N and longitude is -116°57'10" W.

Technical Project Description

The proposed project consists of three elements: 1) Install automation on one of the three 24-inch manually operated flat sided gates and a handrail for safety on the Arena Canal headworks; 2) Install automation on one of three flat sided gates on the Arena Lake Drain, which is located 25 feet upstream from the Arena Canal headworks; and 3) construct a weir and install a transducer in the Arena Lake Drain approximately 2,100 feet downstream from the headworks in order to measure and monitor the water in the drain. The gates will be connected to a Supervisory Control and Data Acquisition system which provides around the clock remote sensing of the headworks.

Project planning, procurement and coordination efforts are scheduled to begin in November, 2022. Shop fabrication of mounting frames, supports, a safety rail and gates will take place in November and December off site. Field installation of the motors, stems, mounting frames, supports and walkway will begin in April 2023. Programming, calibration of the communications, and final

testing will be completed after the start of the 2023 irrigation season, approximately April 10, 2023.



E.1.1. Evaluation Criterion A—Project Benefits

Benefits to the Category A Applicant’s Water Delivery System.

- Clearly explain the anticipated water management benefits to the Category A applicant’s water supply delivery system and water customers.

The Arena Drop Power Plant is located less than a mile upstream from the proposed project area. Approximately 4,600 cfs of water flows through the power plant, generating 500 kilowatts of power a day during the irrigation season. From the power plant, the water flows either into the headworks of the Golden Gate Canal (3,000 cfs) or the Arena Canal (1,600 cfs).

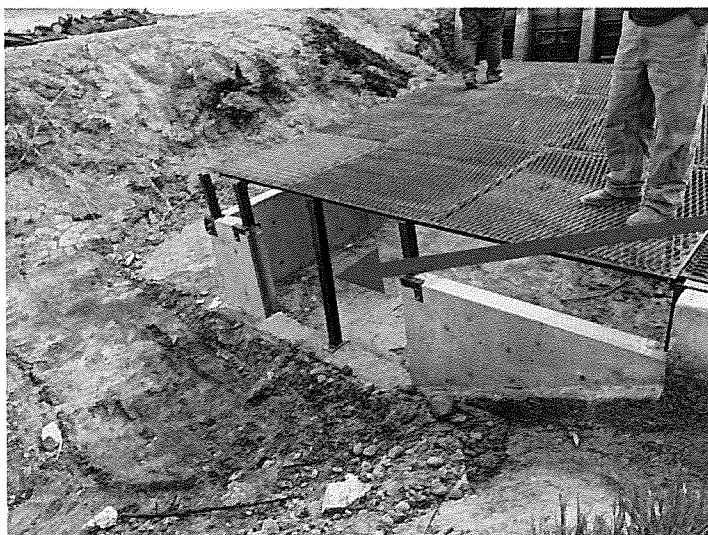
The Arena Canal provides water to deliver to seven accounts, approximately 115 acres of farm land between the power plant and the headworks. Automating the Arena Canal will allow managers to remotely keep the height of the canal at the appropriate level due to fluctuations from the operations of the low-hydro power plant; assist in accurate deliveries, reduce the need for additional carrying water, conserving the amount of water sent down

the Arena Lake Drain; and losses from spills with an improvement to response time if the water levels change unexpectedly, preventing damage to nearby properties. Automation will also alert managers when the water levels unexpectedly change due to an incorrect gate height or a spill.

During the height of the irrigation season, 10 cubic foot per second (cfs), is diverted into the Arena Lake Drain to maintain a constant canal level on the Arena Canal. Having too much water sent down the Arena Canal will cause the Plowhead Lateral, which feeds off of the Arena Canal (1.5 miles downstream) to overflow, causing property and crop loss. Water deliveries are also made off of the Drain and the Drain supplies irrigation water to Riverside Irrigation District. The manual gates on the Arena Lake Drain must be adjusted or monitored four to five times throughout the day and night due to fluctuations in the canals from daytime high temperatures, fluctuations from the low-head hydro power plant and the number of deliveries on both the Arena Canal and the Arena Lake Drain. The automation of the gates will provide the capability to consistently deliver the appropriate amount of water down both waterways with little waste, conserving this precious resource.

A weir with a transducer will also be constructed on the drain approximately 2,100 feet downstream from the headgates to measure the water in the Arena Lake Drain to verify water is being conserved.

While the Arena Canal is being treated for weeds, very little wastewater can be sent down the Arena Lake Drain. This procedure requires coordination with waterusers and especially Riverside Irrigation District. The automation and new weir structure and transducer will assist in maintaining the water levels in both waterways and thereby conserving water.



Arena Lake Drain
Headworks
Location of proposed
automated gate

- Explain the significance of the anticipated water management benefits for the Category A applicant’s water delivery system and customers. Consider:
 - Are customers not currently getting their full water right at certain times of the year?

Southwest Idaho is currently experiencing a drought. BPBC customers are allowed to received up to 3.75-acre feet of water per acre if the water is available. BPBC primary water supply is from both natural flow on the Boise River and storage in Arrowrock and Anderson Reservoirs. Allowance is set when the more irrigation water is being pulled out of the reservoirs than what is going into the system. At this point managers assess the amount of water available in the reservoirs for the remainder of the irrigation season. See Table 1: Allotment which shows the amount of water allocated to our water users and the date allotment was set.

TABLE 1: Allotment

YEAR	ALLOTMENT (acre-feet per acre)	DATE
2012	1.90	August 1
2013	1.00	April 22
	1.40	June 5
2014	2.25	June 18
2015	1.65	April 16
	2.35	June 3
	2.95	June 12
2016	2.60	June 15
2017	2.45	July 14
	2.60	July 26
2018	2.65	June 15
2019	2.70	July 3
2020	2.75	June 25
2021	1.60	June 10
2022	1.2	April 22

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

This project has the potential to prevent lawsuits from the water users if the water levels fluctuate and overflows, causing extensive damage to crops and property. Not to mention loss of livestock and potential lives.

- What are the consequences of not making the improvements?

The consequences range from too much water diverted into both the Arena Canal and drain, over deliveries, spills and overflows, damage to crops and property and loss of livestock and lives.

- Are customer water restrictions currently required?

As noted in the above Table 1: Allotment; water is restricted in low water years. The earlier the allotment date is set, indicates water is restricted to that amount for the remaining of the irrigation season. The 2022 irrigation season is beginning 2 weeks later than average and the allotment of 1.2 will be set immediately upon date of deliveries.

- Other significant concerns that support the need for the project.

The Plowhead Lateral headworks is off the Arena Canal 1.2 miles downstream. The Plowhead Lateral has had numerous overflows and spills due to the fluctuation of water in the Arena Canal and has caused property damage to local growers.

Broader Benefits

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

The proposed project will improve broader water supply reliability by preventing less waste of water due to over deliveries, overflows/spills, and conserves water in the reservoirs.

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

This project does increase collaboration and information sharing among the five irrigation districts the BPBC delivers water for on their behalf. Each district has at least one member on the Board of Directors.

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

The project will help stabilize the canal levels and a decrease of personal property and crop damage due to overflows and spills. With less water being drawn from the reservoirs, it will have an impact on recreation on the reservoirs. With boating and fishing on the Arrowrock, Anderson and Lucky Peak Reservoirs, along with Lake Lowell, the recreationists will receive the benefits of the conserved water remaining in the reservoirs and the lake, which also benefits the local economy and tourism.

- Will the project complement work being done in coordination with NRCS in the area?

No, this will not complement a current NRCS project.

- Will the project help address drought conditions at the sub-basin or basin scale?

The proposed project will play a part in conserving water. Southwest Idaho is currently in Moderate to Severe drought according to the Drought Monitor. The 2021 irrigation season ended approximately 3 weeks due to the shortage of water in the reservoirs. Many growers are struggling with what crops to plant and when for the 2022 crop year.

E.1.2 Evaluation Criterion B – Planning Efforts Supporting the Project

Describe how your project is supported by an existing planning effort. Explain plan development and support for the project.

The BPBC adopted a Water Conservation Plan in 2010 and is in the process of being updated to address many challenges from the current drought and an increase in population. The current plan addresses installation of appropriate water measurement devices to assure water is not being lost to excess deliveries. This project implements a portion of the Project’s Water Conservation Plan, Objective #4.

Every year, the watermasters request projects to be completed in the upcoming year. The requests are prioritized by water conservation, operational efficiency, safety, and project costs. The Arena Canal and Arena Lake Drain have been chosen due to the water conservation, and the need to be alerted of any changes to the head pressure and water levels to prevent any further overflows downstream on the Plowhead Lateral.

Boise Project has installed over 25 SCADA automated sites in an effort to conserve water, and provide quicker response times due to overflows and spills.

E.1.3. Evaluation Criterion C— Implementation and Results

- **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.**

The preparation for the project will begin in November 2022 after the end of the irrigation season, with planning, environmental study, and procurement of materials to be completed by February 2023. Fabrication of the mounting frames, security box, battery box, gate and hand rail will be done off-site during the winter in March of 2023. Once fabrication is complete, the actuator, safety rail, and electrical mechanics, will be installed on site in early April 2023. Integration into the existing SCADA program will begin by April 2023 with final testing to be completed after the start of the 2023 irrigation season.

Table 2: Estimated Project Schedule

Planning and coordination	November 2022
Procurement	November 2022
Environmental Study & Clearance	December 2022
Fabrication of mounting frames, supports, safety rail and gates, off-site	January 2023-March 2023
Field installation of gates, walkway and electrical work	April 2023
Install stilling well	April 2023
SCADA integration	April 2023
Final Testing & Site Operational	April 2023
Beginning of Irrigation Season	April 2023

- **Describe any permits that will be required, along with the process for obtaining such permits.**
With the project site entirely within BPBC and USBR facilities and easements, no permits are required.
- **Identify and describe any engineering or design work performed specifically in support of the proposed project.**
All design work will be performed in house by BPBC employees. The welder/fabricator will design the handrail and the new weir will be designed by the watermaster.
- **Describe any new policies or administrative actions required to implement the project.**
There are no new policies or administrative actions required to implement the project.
- **Describe the timeline for completion of environmental and cultural resource compliance. Was the timeline for the completion of environmental and cultural resource compliance discussed with the local Reclamation office?**
Once we receive the notice of award, we will contact the local Reclamation office to begin the environmental and cultural resource compliance process.

E.1.4. Evaluation Criterion D—Nexus to Reclamation

- **Is the proposed project connected to a Reclamation project or activity?**
The irrigation districts served by the BPBC are parties to repayment agreements pursuant to the Water Supply Act of 1958 and thus are obligated under Section 210 to the Reclamation Reform Act of 1982 to plan and implement water conservation measures.
- **Does the applicant receive Reclamation project water?**
Yes, BPBC receives the majority of its water from the reservoir storages in Arrowrock and Anderson Ranch reservoirs and Boise River water rights, which are Reclamation waters.
- **Is the project on Reclamation project lands or involving Reclamation facilities?**
Yes, the Arena Canal and Arena Lake Drain are Reclamation facilities.
- **Is the project in the same basin as a Reclamation project or activity?**
Yes, the Arena Canal and Arena Lake Drain are located in the Boise River Basin, a Reclamation project.
- **Will the proposed work contribute water to a basin where a Reclamation project is located?**
Yes, the conserved water will remain in the Boise River Basin.

E.1.5 Evaluation Criterion E – Presidential and Department of the Interior Priorities

Combating the Climate Crisis

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

The impacts of climate change are many; the temperatures are rising, creating a longer growing season, increases in demand for irrigation water, the temperature of the water in rivers and reservoirs are also increasing which decreases the oxygen and lead to fish die-offs; wildfires are more frequent and rampant, which leads to decrease in snowpacks and spring run-off.

This project will help combat the climate crisis by conserving the water which remains in the system longer and/or is delivered to our water users as the watermasters and ditchriders will be able to divert the correct amount of water into each canal as needed, and provides a tool to monitor the height of the canals and control the head pressure for deliveries, alerting managers in any sudden or unexpected changes in canal levels due to spills or overflows, therefore meeting the demand for a longer irrigation season, and the higher temperatures.

- Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?

This project will play a small part in strengthening the water supply sustainability by allowing the conserved water to be used instead of being lost into the drain, or from spills and overflows, keep the diversions down and the water remaining in the reservoirs.

E.1.5.2 Sub-criterion No. E2. Disadvantaged or Underserved Communities

The proposed project is located outside of Wilder, Idaho in Southwest Idaho. According to the 2020 U.S. Census and the median household income is \$39,337 with an employment rate of 66%, with an estimated 96% working in natural resources, construction and maintenance occupations category which includes farming. Farming is a major employer in the area of the proposed project and by providing irrigation water to the growers, it allows for the continuation of jobs and economic growth opportunities.

E.1.5.3. Sub-criterion No. E.3. Tribal Benefits

- Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for a Tribe?

No.

- Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?

No.

D.2.2.9 Overlap or Duplication of Effort Statement

There is no overlap between the proposed project and any other active or anticipated proposals or projects. This 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 – Federal or non-Federal.

D.2.2.10 Project Budget

Funding Plan

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

- Any monetary contributions by the applicant towards the cost-share requirement and sources of funds (e.g. reserve account, tax revenue, and/or assessments)

Non-Reclamation funding for the proposed project comes from the five irrigation districts served by BPBC. Authorization for this funding is made by the Board of Directors of BPBC, which endorses and supports this grant proposal as evidenced by the Official Resolution included in this application. As taxing authorities, the irrigation districts are legally enabled to assess the users in their districts for the costs of operations, maintenance and improvements. Idaho State Code grants, in considerable detail, the ways in which districts may make such assessments and the ramifications for taxpayers who become delinquent.

- Any costs that will be contributed by the applicant:

BPBC is seeking a 50/50 share-cost all expenses with funding of this application. Please see the proposed budget for all costs.

- Any third-party in-kind costs (i.e., goods and services provided by a third party):

BPBC is not seeking any third-party in-kind costs

- Any cash requested or received from other non-Federal entities

No assistance from any other non-Federal entities is being sought.

- Any pending funding requests (i.e. grants or loans) that have not yet been approved, and explain how the project will be affected if such funding is denied.

No other funding requests have or will be requested for this project.

- Please provide whether the budget proposal includes any project costs that have been or may be incurred prior to award.

No pre-award costs are expected to be incurred.

Table 3: Total Project Cost Table

Funding Sources	Funding amount
Costs to be reimbursed with the Federal Funding	\$43,790
Costs to be paid by the applicant	\$43,790
Value of third-party contributions	-0-
TOTAL PROJECT COST	\$87,580

Budget Proposal

The proposed budget for this project is presented in Attachment A. The budget established for this project is based on a similar project performed in the Fall/Winter of 2021/2022.

Budget Narrative

Salaries & Wages

The following key personnel from BPBC will be charging time on this project:

- Rick Martin, Hydromaster – will oversee, procure materials, program and test the automation and manage the project
- Derek Fitzwater, Foreman – will assist the Hydromaster and supervise the laborers and equipment operators.
- BPBC full time laborers will provide the bulk of the labor for this project.
- Reporting requirements: 20 hours
- As required by the NOFO, this certifies the labor rates include in the budget proposal represent the actual labor rates as of April 2022 with a projected 2% pay increase effective January 1, 2023. Furthermore, these rates are consistently applied to Federal and non-Federal activities.

Fringe Benefits

Fringe benefits include payroll taxes, health insurance and retirement.

Payroll taxes – Social Security/Medicare: 7.65%

Retirement: 11.94%

Health Insurance projected for 2022: \$731.54 a month

Equipment

All equipment used for this project is owned by BPBC and will be charged at the equipment usage rates outlined by the United States Army Corps of Engineers and their Construction Equipment and Operating Expense Schedule.

Materials and Supplies

Procurement of materials will begin in November 2022. Prices used in this proposal are based on a similar project done in the Fall/Winter of 2021/2022. An itemized list is provided in the proposed budget in Attachment A.

Contractual

None

Third-Party In-Kind Contributions

None

Environmental and Regulatory Compliance Costs

As per the local Bureau of Reclamation office, the costs was estimated at \$3,500

Other Expenses

None.

D.2.2.14 Official Resolution

The Board of Directors of the Boise Project Board of Control met on April 6, 2022 at which the Official Resolution was approved and signed by the Chairman of the Board. See Attachment B.

D.2.2.15 Conflict of Interest Disclosure

There are not any actual or potential conflicts of interest existing at the time of submission.

D.2.2.16 Uniform Audit Reporting Statement

Boise Project Board of Control was not required to submit a Single Audit report in our last fiscal year.

D.3 Unique Entity Identifier and System for Award Management

The BPBC is registered with System for Award Management (SAM). The Unique Entity Identifier is SWMGTWB1U2C3. Registration in SAM will remain active.

H.1 Environmental and Cultural Resource Considerations

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

Modification of the headworks will have minimal earth disturbing construction and have little effect to the surrounding environment. All construction activities, including welding, will be located within the canal and/or easements. The project will take place before the 2023 irrigation season when temperatures are lower and increased precipitation levels will help reduce the potential of dust. Should dust become an issue, BPBC will apply water applications to ensure dust abatement.

• 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 no known endangered or threatened species in the project site.

• Are there wetlands or other surface waters inside the project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have.

Wetlands are not present within the vicinity of the proposed sites.

• When was the water delivery system constructed?

The water delivery system was constructed in 1908.

• 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.

Some minor modifications will occur to the structure, with the installation of the automation and a walkway with a handrail for safety. The current structure will remain intact.

• Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?

There are no buildings, structures or features listed or eligible for listing on the National Register of Historic Places in the project site.

• Are there any known archeological sites in the proposed project area?

There are no archeological sites within the project area.

• Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?

No, the project will not have any effect on any population.

• Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

The project site is not within tribal lands.

• **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?**

The proposed project sites will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area.

Attachment A				
BUDGET PROPOSAL - ARENA CANAL AND ARENA LAKE DRAIN AUTOMATION - Boise Project Board of Control				
Budget Item Description	Computation			Total Cost
	\$/Unit	Unit	Quantity	
SALARIES AND WAGES				
Rick Martin, Project Manager	\$ 31.11	hr	10	\$ 311.10
Derek Fitzwater, Foreman	\$ 23.30	hr	70	\$ 1,631.00
Dragline Operator	\$ 23.16	hr	24	\$ 555.84
Truck Operator	\$ 17.53	hr	48	\$ 841.44
Laborers- canal gates	\$ 19.56	hr	315	\$ 6,161.40
Laborers - weir construction	\$ 18.06	hr	120	\$ 2,167.20
Reporting Requirements	\$ 26.42	hr	20	\$ 528.40
Subtotal - Salaries & Wages			607	\$ 12,196.38
FRINGE BENEFITS				
Rick Martin, Project Manager	\$ 10.31	hr	10	\$ 103.10
Derek Fitzwater, Foreman	\$ 8.78	hr	70	\$ 614.60
Dragline Operator	\$ 8.76	hr	24	\$ 210.24
Truck Operator	\$ 7.65	hr	48	\$ 367.20
Laborers - canal gates	\$ 8.06	hr	315	\$ 2,538.90
Laborers - weir construction	\$ 7.76	hr	120	\$ 931.20
Reporting Requirements	\$ 9.39	hr	20	\$ 187.80
Subtotal - Fringe Benefits			607	4,953.04
EQUIPMENT				
2011 Cat Crawler Mini-Excavator Model 304D	\$ 16.60	hr	3	49.80
Trailmax Trailer	\$ 3.57	hr	3	10.71
2017 Ford F350	\$ 23.05	hr	3	69.15
2015 Caterpillar Excavator Model #323F	\$ 51.22	hr	24	1,229.28
2000 Mack Semi-Truck 10 Wheel	\$ 71.15	hr	3	213.45
1994 GMC 12 Yd Dump Truck	\$ 32.59	hr	24	782.16
2008 Peterbuilt Dump Truck	\$ 32.59	hr	24	782.16
2019 Ford 350 PU	\$ 23.05	hr	40	922.00
Subtotal-Equipment				\$ 4,058.71
MATERIALS				
Data Logger CR1000	\$ 1,750.00	ea	1	\$ 1,750.00
Pressure Transducer	\$ 860.60	ea	3	\$ 2,581.80
Cell Modem	\$ 675.00	ea	1	\$ 675.00
Display Keypad	\$ 595.00	ea	1	\$ 595.00
Modem Cable	\$ 6.00	ea	1	\$ 6.00
Antenna	\$ 72.00	ea	1	\$ 72.00
Solid State Relays	\$ 174.00	ea	4	\$ 696.00
Solar Panel 200 watt	\$ 260.00	ea	1	\$ 260.00
Solar Charger	\$ 157.00	ea	1	\$ 157.00
Solar Panel mount	\$ 139.00	ea	1	\$ 139.00
Wiring/Cable	\$ 20.00	ea	1	\$ 20.00
Lightening arrestor	\$ 27.00	ea	1	\$ 27.00
Gate Actuators	\$ 19,422.00	ea	2	\$ 38,844.00

Stems	\$ 3,214.00	ea	2	\$ 6,428.00
Bushing Stock	\$ 67.00	ea	2	\$ 134.00
Batteries	\$ 149.00	ea	8	\$ 1,192.00
Piano Hinges	\$ 20.00	ea	1	\$ 20.00
Battery Breakers	\$ 56.00	ea	2	\$ 112.00
Buss Bar br mounts	\$ 128.00	ea	2	\$ 256.00
Nema Enclosure	\$ 280.00	ea	1	\$ 280.00
Conduit - 1 inch PVC	\$ 1.00	ft	120	\$ 120.00
Conduit Connectors - miscellaneous pieces	\$ 30.00	ea	1	\$ 30.00
Flex Conduit	\$ 75.00	50ft	1	\$ 75.00
Paint	\$ 32.00	gallon	4	\$ 128.00
Steel for Walkway and Handrail	\$ 2,400.00	various	1	\$ 2,400.00
Concrete	\$ 148.00	yard	28	\$ 4,144.00
Rebar	\$ 10.00	ea	66	\$ 660.00
Snapties	\$ 0.68	ea	360	\$ 244.80
Lumber	\$ 570.32	various	1	\$ 570.32
Weir	\$ 55.00	ea	1	\$ 55.00
Miscellaneous materials	\$ 200.00		1	\$ 200.00
Subtotal-Materials				\$ 62,871.92
ENVIRONMENTAL AND REGULATORY COSTS				\$ 3,500.00
Subtotal-Environmental				\$ 3,500.00
OTHER EXPENSES				
N/A				
Subtotal-Other Expenses				\$0.00
Total Project Costs				\$ 87,580.05

DAVID REYNOLDS
CHAIRMAN OF THE BOARD
DONALD BARKSDALE
VICE CHAIRMAN OF THE BOARD
ROBERT D. CARTER
PROJECT MANAGER
THOMAS RITTHALER
ASSISTANT PROJECT MANAGER
APRYL GARDNER
SECRETARY-TREASURER
MARY SUE CHASE
ASSISTANT SECRETARY-TREASURER

BOISE PROJECT BOARD OF CONTROL

(FORMERLY BOISE U.S. RECLAMATION PROJECT)
2465 OVERLAND ROAD
BOISE, IDAHO 83705-3155

OPERATING AGENCY FOR 167,000
ACRES FOR THE FOLLOWING
IRRIGATION DISTRICTS

NAMPA-MERIDIAN DISTRICT
BOISE-KUNA DISTRICT
WILDER DISTRICT
NEW YORK DISTRICT
BIG BEND DISTRICT

TEL. (208) 344-1141
FAX. (208) 344-1437

OFFICIAL RESOLUTION FOR WATERSMART GRANTS: SMALL-SCALE WATER EFFICIENCY PROJECTS NOFO No. R22AS00195

WHEREAS, The U. S. Bureau of Reclamation is seeking proposals from irrigation districts who want to leverage their money and resources by cost sharing with Reclamation on small-scale on-the-ground projects that seek to conserve, better manage, or otherwise make more efficient use of water supplies.

WHEREAS, the Boise Project Board of Control desires to apply for funding through Reclamation's WaterSMART Grant Program;

NOW THEREFORE BE IT RESOLVED that the Board of Directors of the Boise Project Board of Control agree and authorize the following:

1. The Board has reviewed and supports this proposal for modifying the Arena Gates and Arena Lake Drain with solar powered automation with connectivity to SCADA program.
2. The Boise Project Board of Control is capable of providing the amount of funding and/or in-kind contributions as specified in the funding plan; and
3. If selected for the WaterSMART Grant, the Boise Project Board of Control will work with Reclamation to meet established deadlines for entering into a cooperative agreement.
4. Bob Carter, Project Manager, has the legal authority to sign and enter into the agreement

Passed and adopted by the Board of Directors of the Boise Project Board of Control during its regular meeting on the 6th day of April, 2022.



David Reynolds
Chairman of the Board