



BOR WaterSMART: Environmental Water Resources Projects  
NOFO No. R22AS00026

## Board of Control for Wood River Valley Irrigation District No. 45 and Triangle Irrigation District



**FY22**

## Diversion 45 Stabilization and Fish Passage Remediation Project

### **Applicant Contact:**

Sarah Gardner, BOC Board Member  
PO Box 736, Bellevue, ID 83313  
p: (208) 720-5141  
e: sarag@svskylan.net

### **Project Manager:**

John Wright, BOC Water  
PO Box 736, Bellevue, ID 83313  
p: (775) 934-6200  
e: jandmw@icloud.com

## Table of Contents

Technical Proposal and Evaluation Criteria .....	2
Executive Summary .....	2
Applicant Info.....	2
Project Summary .....	2
Length of Time and Estimated Completion Date.....	2
Federal Facility .....	3
Project Location .....	3
Geographic Location .....	3
Technical Project Description .....	3
Performance Measures .....	7
Evaluation Criteria .....	7
Evaluation Criterion A – Project Benefits (35 Points) .....	7
Evaluation Criterion B – Collaborative Project Planning (25 points).....	12
Evaluation Criterion C – Stakeholder Support (15 points).....	14
Evaluation Criterion D – Readiness to Proceed (10 Points).....	16
Evaluation Criterion E – Performance Measures (5 points).....	17
Evaluation Criterion F – Presidential and Department of the Interior Priorities (10 points) .....	18
Project Budget.....	20
Funding Plan and Letters of Commitment .....	20
Budget Proposal .....	21
Budget Narrative .....	23
Environmental and Cultural Resources Compliance .....	24
Required Permits or Approvals.....	25
Letters of Support and Letters of Partnership.....	25
Official Resolution.....	26

## Attachments

Attachment A – Project Location Map  
Attachment B – Detailed Project Location Map  
Attachment C – Recent Newspaper Articles  
Attachment D – 2019 Conceptual Plan  
Attachment E – Letters of Support  
Attachment F – Project Design Plans and Specs  
Attachment G – Design Report Memo

# Technical Proposal and Evaluation Criteria

---

## Executive Summary

---

### Applicant Info

*Date:* December 9, 2021

*Applicant Name:* Board of Control for Wood River Valley Irrigation District No. 45 and Triangle Irrigation District

*Project Name:* Diversion 45 Stabilization and Fish Passage Remediation Project

*City, County, State:* Bellevue, Blaine County, Idaho

*Project Manager:*

- *Name:* John Wright, BOC Water
- *Email:* [jandmw@icloud.com](mailto:jandmw@icloud.com)
- *Phone:* (775) 934-6200

*Applicant Category:* A

*Project Funding Request:* \$629,000 *Total Project Cost:* \$839,000

### Project Summary

*A one-paragraph project summary that provides the location of the project, a brief description of the work that will be carried out, any partners involved, concerns in your project area, and how this project is expected to help alleviate impacts of those conditions, and identification of any planning documents that support the project.*

The Diversion 45 Stabilization and Fish Passage Remediation Project is located on the Big Wood River in Bellevue, Idaho. This project aims to restore fish passage and improve sediment transport at the diversion dam while maintaining diversion functionality, stabilizing the existing diversion, and improving riverine and floodplain conditions. The primary objectives are to provide for fish passage, stabilize the dam, and increase safety for recreators near that dam. The project includes function restoration by filling and backfilling the exposed and degraded concrete diversion dam with compacted gravel. A roughened rock ramp along the entire structure will help stabilize the dam. It also includes cutting a low flow 10-foot notch in the dam structure, installing multiple 2-log large woody material structures, establishing a right bank floodplain bench, and implementing revegetation treatments. The project has been developed in conjunction with the Board of Control (BOC) – which is the Wood River Valley Irrigation District No. 45 (WRID45) and Triangle Irrigation District (TID) – and Trout Unlimited (TU), and the Wood River Land Trust.

### Length of Time and Estimated Completion Date

*State the length of time and estimated completion date for the proposed project including the construction start date (mm/yr). Note: proposed projects should not have an estimated construction start date that is prior to September 1, 2022.*

After the funding has been awarded, the contract is estimated to be signed in July/August 2022. The project will require additional site review and design evaluation before preparing the environmental documents and bidding. This additional design will occur during the same time as the environmental review that will take place from August 2022 to March 2023. The Floodplain Permit from the City of Bellevue, and the joint permit from the U.S. Army Corps of Engineers (Corps), the Idaho Department of Water Resources (IDWR), and the Idaho Department of Lands

(IDL) will be applied for in March 2022 and is expected to be secured July/August 2022. Bidding March/May 2023. Construction August 2023 – January 2024. Project closeout and final reports January/February 2024.

### Federal Facility

*Whether or not the proposed project is located on a Federal facility.*

No, the project is not located on or within a Federal Facility.

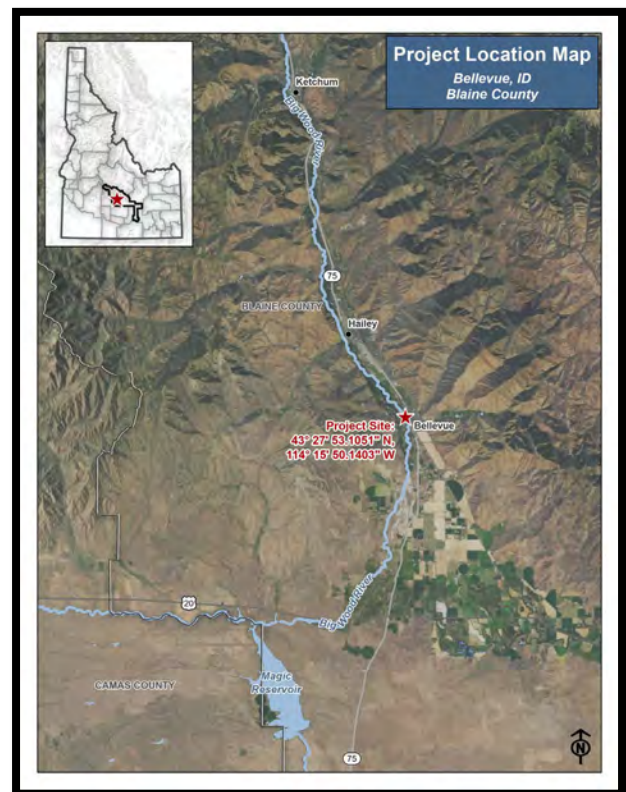
### Project Location

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

### Geographic Location

The project is located in an area known as Howard Preserve, which stretches along the Big Wood River (River) in Bellevue, Idaho. Bellevue is located in the Wood River Valley about 18 miles south of the resort area of Ketchum and Sun Valley, Idaho. The project latitude is {43°27'53.1051" N} and longitude is {114°15'50.1403" W}. See Attachment A – Project Location Map and Attachment B – Detailed Project Location Map for a larger, more detailed view of Figure 1.

Figure 1 Project Location Map



### Technical Project Description

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

**Background Information:** The Wood River Valley Irrigation District was founded around 1915 to deliver Big Wood River irrigation surface water rights to the northern section of the Bellevue Triangle, located just south of the City of Bellevue, Idaho. The Big Wood River flows south out of the central mountains of Idaho. It is most widely known for the surrounding local communities of Ketchum, Sun Valley, Hailey, and Bellevue, in the Wood River Valley, with access to all types of outdoor recreation, most notably skiing and fishing. Several nature preserves and eight to ten irrigation canals serve over 300 users, including large multi-generation farms and the four municipalities just mentioned.

In 2015, legislation divided the original Wood River Valley Irrigation District into two sub-districts: the Wood River Valley Irrigation District No. 45 (WRVID45) and the Triangle Irrigation District (TID). With some exceptions, the WRVID45 now includes the smaller acreage properties generally located in the northern section of the Bellevue Triangle, while the TID consists of the larger acreage properties generally located in the southern section. Both districts jointly utilize a portion of the original water delivery infrastructure made up of a low-head dam in the Big Wood River, an adjacent take-out structure, and various diversion works. It also includes control gates and canals to divert up to 380 cfs to serve approximately 9,000 acres of land and roughly 200 users.

*Photo 1 Diversion 45 Existing Condition*



The same legislation allowing the WRVID to be partitioned into two sub-districts also created a third entity: the Board of Control (BOC), which is the applicant for this application. The BOC facilitates the operation and management of the mutually owned infrastructure (Diversion 45). The BOC Board is comprised of members from both irrigation districts and operates and maintains the structures and personnel to deliver water through the canals to each private diversion.

The dam at Diversion 45 requires regular maintenance to divert allocated water rights. Bedload (sediment) deposition upstream from the diversion structure results in the need for a temporary gravel diversion being strategically placed to manually divert water in the Big Wood River towards Diversion 45. Working in the river with heavy equipment is required at least two times a year to put in or take out these unsustainable gravel diversion dams. The old low-head dam has the necessary function of stabilizing the stream bed above the headgates so that incising and the subsequent lowering of the streambed doesn't occur, making it possible to divert water with small temporary gravel manipulations. However, the dam's existence has destabilized the stream bed below, resulting in significant erosion starting right up against and even underneath the old diversion structure itself. The structure is hollow, bridging over very large scour holes, and is in danger of collapsing. Water will fall into the structure's interior and come out under the downstream wall.

*Photo 2 Fish Rescue*

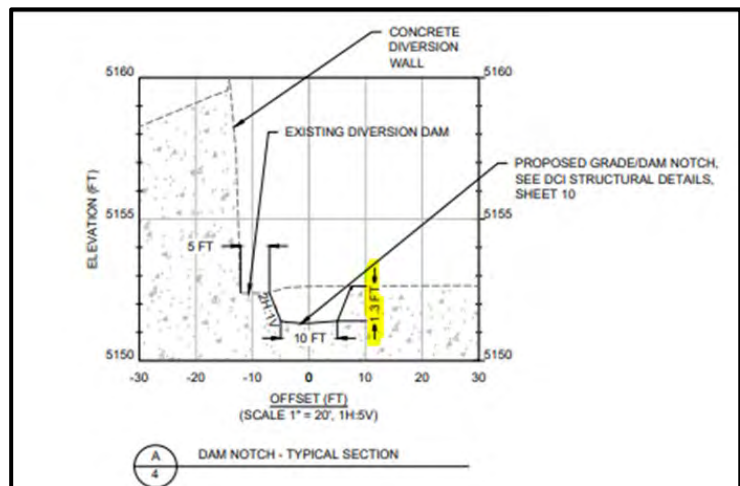


During warm weather and late-season flows, this hollow structure creates what appears to be a fun place for recreators to explore, but is instead a dangerous place for entrapment and drowning. Water cascading over the structure creates a critically dangerous lateral wave on the downstream side during high flows. A lateral wave is hazardous for boats, pets, anglers, and wildlife.

All water flows over the structure in an ever-lengthening fall, making it impossible for fish to migrate above the dam. Many fish die because they cannot get upstream during these low flow times. For years, during low flows in the river, volunteers from BOC, TU, and other stakeholders performed multiple planned fish rescues to relocate the fish over the dam. This past year with the drought was more challenging than ever before. Volunteers showed up with less than 24 hours' notice, along with staff from the Wood River Land Trust and Idaho Fish and Game, to rescue the fish before they died in increasingly shallow water levels near Bellevue. The rescue just below the dam saved around 12,000 fish. [Unfortunately, thousands of fish could not be saved, as shown in this video "Big wood River Kill at Bellevue 8/31/21."](#)

**Project Description:** The existing dam has created and maintained a profile discontinuity, resulting in upstream aggradation and downstream channel incision. The proposed project actions include stabilizing the dam structure walls vertically and horizontally by cutting the concrete off the top of the dam and filling it with compacted gravel. The compacted gravel will be extended below the structure walls to fill the scour holes. Once filled and compacted, a concrete slab with rebar for structural support will be constructed on the top of the dam, and the downstream side of the dam will be backfilled up to the dam crest to help prevent subsurface flows and associated scour issues. A notch, 1.3-foot deep and 10-foot wide, will be cut into the existing downstream wall within the diversion structure. A roughened rock ramp will be built to transition the stream bed above the dam through the notch to the stream bed below the dam. This will allow for sediment transport past the top of the canal and facilitate fish migration. This notch and channel will enable fish to move up to higher water and provide riprap, planting, and log jam structures to offer diversion and channel stabilization.

Figure 2 Dam Notch



This will allow for sediment transport past the top of the canal and facilitate fish migration. This notch and channel will enable fish to move up to higher water and provide riprap, planting, and log jam structures to offer diversion and channel stabilization.

The roughened rock ramp is proposed to raise and stabilize the channel bed downstream of the diversion dam. The rock ramp is a steep, roughened channel bed stabilized by large immobile boulders. The ramp consists of a low flow channel designed for biological benefit, including a low flow fish passage and a high flow channel designed to withstand the flood flow. The low flow channel will tie into the proposed notch in the existing diversion dam to provide fish passage and function as a sediment sluice in higher flow events. Boulders are incorporated into the proposed

rock ramp to promote vertical channel stability while increasing instream complexity and improving habitat quality. Boulders will increase habitat diversity by providing diverse water depths, substrate roughness, and velocity distribution. The rock ramp extends across the channel downstream from the entire concrete structure.

Downstream of the diversion, the existing channel is entrenched and confined. A bankfull bench is proposed to be excavated in the unvegetated right bank along the rock ramp. The bench maintains conveyance width along the ramp to reduce stress during flood conditions. In addition, plantings would be installed along the bench face and crest to improve stability and shading of the elevated gravel bar along the right bank, which is a consequence of the historic downcutting that has resulted from the diversion dam profile discontinuity. Included in the bench are ballasted 2-log structures (wood jams). Wood jams promote the longevity of the proposed bench, improve sediment sorting, and tend to accumulate natural debris over time.

Figure 3 Channel Design

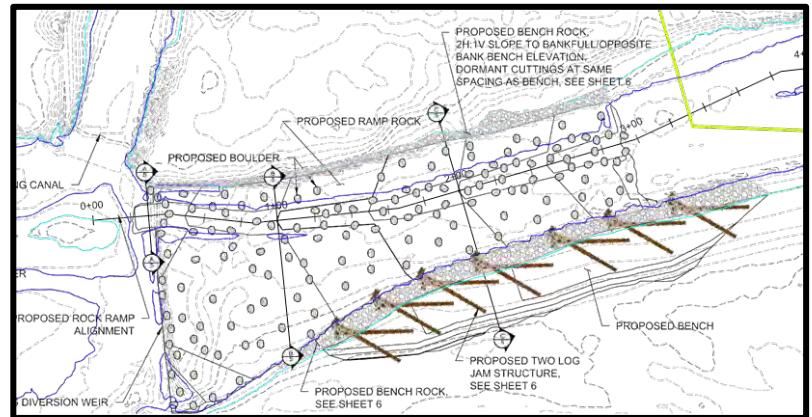


Figure 4 Bank Jam Structure

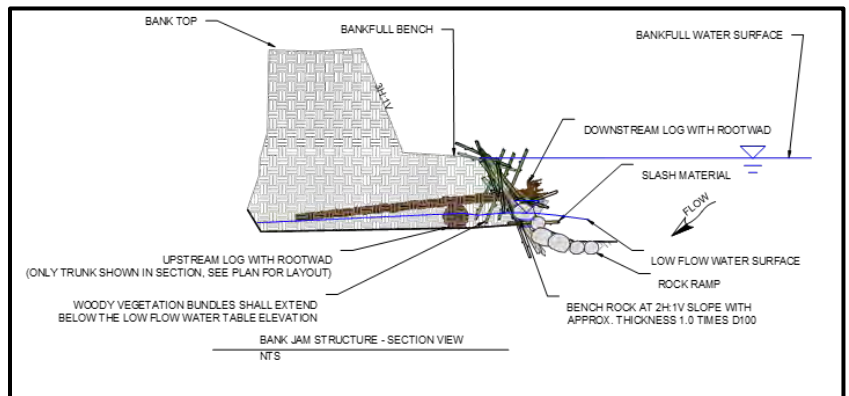
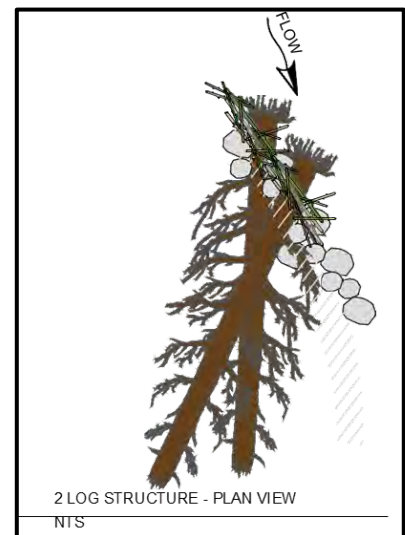


Figure 5 2-Log Structure



The 2-log wood jam structure is comprised of 2 logs with root wads, which would be ballasted by burial within the bench, the toe rock on the bench face, and the ramp rock on the channel bed. The logs with root wads would be placed to provide stability, increase instream complexity, and provide cover habitat. The wood jam would be placed with root wads facing upstream and protruding into the bankfull channel. Slash and small wood would be placed upstream of the wood jams as racking material to help seal the structures and provide more diverse cover for aquatic organisms. The jam structures have been designed for specific functions within the riverine ecosystem and withstand up to the 100-year flood event.

Dormant hardwood cuttings would be placed within the bench face, wood jam construction area, and as brush trenches on the benchtop to facilitate native species revegetation. Cuttings would be installed to a depth of 1 foot below the lowest water table of the year.

Bioengineering techniques to be employed include 45-degree bundles and brush trenches. Cuttings would be collected from native riparian trees and shrubs at an on-site location approved by the design consultant and installed following the revegetation methods identified in the design plans.

## Performance Measures

*All applicants are required to provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project. Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of the project. Please describe the performance measures for your project within the evaluation criteria section of your application.*

BOC and TU will work together to monitor the diversion and other improvements by preparing photo points, surveys, and visual inspection schedules to determine the effectiveness of the project for dam stabilization and fish passage over five years.

## Evaluation Criteria

### Evaluation Criterion A – Project Benefits (35 Points)

Photo 3 Diversion 45

#### Sub-Criterion A.1 – Benefits to Ecological Values

1. *Please explain how the project will **benefit ecological values that have a nexus to water resources or water resources management**, including benefits to plant and animal species, fish and wildlife habitat, riparian areas, and ecosystems that are supported by rivers, streams, and other water sources, or that are directly influenced by water resources management.*

This project is an effort to restore fish passage and improve sediment transport at the dam while maintaining diversion functionality, stabilizing the exiting diversion, and improving riverine and floodplain conditions. The existing dam has destabilized the stream bed below, resulting in significant erosion starting right up against and even underneath the old dam structure. All water flows over the dam in an ever-lengthening fall, making it impossible for wildlife to migrate to the upper side. Also, during high flows, the drops create an exceptionally dangerous lateral wave that can be deadly for boats, recreators, pets, and wildlife in the water, either directly above or below the dam. Bank erosion produces tons of sediment that result in excess sediment deposits and channel filling, which can be severe during above-average runoff events.

Several projects up and down the planning area within the 2019 Bellevue Project Area Conceptual Restoration Designs Report (2019 Report) need to be implemented for real change to happen in this one-mile stretch of the Big Wood River. As of today, two of them have been completed and include:

- Bank Stabilization and Enhancement – February 2020





- Lower Howard Preserve – March 2021

The design for this proposed project – Diversion 45 Stabilization Fish Passage Remediation – was prepared in March 2021.

The Bellevue Side Channel Enhancement will be completed next year. However, the sheer size and cost of the Diversion 45 Stabilization Fish Passage Remediation Project is one project within the 2019 Report that requires a more significant amount of funding to implement. This project will tie the previous work together to provide direct benefits to fish and their habitats, sediment improvements within the river, and bank stabilization for adjacent landowners and recreators.

The following project benefits and objectives were identified based upon existing site conditions, previous geomorphic assessment, land use constraints, and fluvial system potential.

**Benefits and Objectives of the project include:**

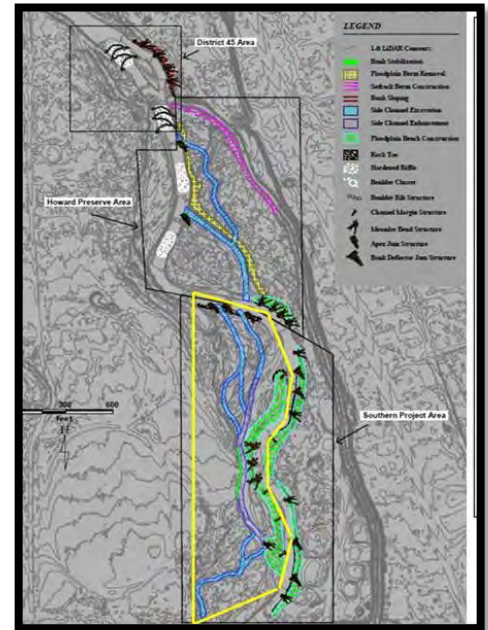
- Maintain diversion functionality and operations
- Increase lateral and vertical channel stability
- Improve diversion structure stability
- Improve fish passage
- Eliminate developing safety hazards
- Improve sediment transport and routing
- Improve riparian vegetation and channel margin vegetation characteristics
- Improve instream aquatic habitat conditions

2. *If the project will benefit multiple water uses (i.e., benefits to ecological values AND benefits to other water uses, e.g., municipal, agricultural, or tribal water uses), please explain how the project benefits other water uses.*

This project is an effort to build upon the 2019 Report generated in collaboration between water users, diversion operators, Trout Unlimited, the Wood River Land Trust, the City of Bellevue, and private property owners and citizens with interests in the subject reach of the river. The project is specific to maintaining the ability to divert irrigation water while counteracting the adverse fluvial, ecological, and fisheries impacts resulting from the concrete sill configuration associated with the Diversion 45 diversion works.

**Irrigation Need** – The concrete check dam is old and in danger of undercutting or cracking, which would impair its ability to deliver and divert water into the canal. The vertical drop associated with the Diversion 45 concrete check dam creates a barrier to upstream fish migration. The drop also results in channel incision downstream of the diversion. Channel incision (or lowering) results in a disconnection between the river and the floodplain that impairs floodplain function, riparian

Figure 6 Completed Projects



vegetation conditions, and River function. Evaluation of the dam and its interaction with the irrigation system is vital to BOC because they have issues delivering water to their users during low flows. With its additional investigations into maintaining the ability to divert irrigation water, this project will support water reliability.

**Project Goals** – Project goals are to restore fluvial functions and fish passage in the reach of the Big Wood River while maintaining the functionality of irrigation water diversion. Project objectives include re-establishment of natural channel profile, improvement of hydraulic connectivity between the river and historic floodplain, restoration of continuity in sediment transport, achievement of fish passage for wild salmonids during all flow conditions, maintaining the ability to divert irrigation water, and avoidance of increased maintenance requirements or operational costs associated with diversion activities.

Each year, BOC, TU, and other stakeholders do fish rescues to relocate the fish that have passed downstream over the dam in the river. Many fish die because they cannot get back upstream. This past year with the drought was worse than ever before. On Saturday, September 11, 2021, Idaho Fish and Game issued a salvage on the Big Wood River between Diversion 45 and the Glendale Diversion. Volunteers showed up with less than 24 hours' notice, and staff from the Wood River Land Trust and Idaho Fish and Game came to rescue the fish before they died in increasingly shallow water levels near Bellevue. A rescue just below the dam at Diversion 45 rescued at least 12,000 fish. Unfortunately, many fish could not be saved.

*Photo 4 Dead Fish from September 11, 2021*



This past spring and summer, irrigators from the BOC, Wood River Land Trust, and TU worked continuously to develop solutions to keep fish in the river as long as possible during this unprecedented drought year. Without these efforts, many more fish would have died. For recent newspaper articles regarding these efforts, see Attachment C – Recent Newspaper Articles.

#### Sub-Criterion A.2 – Quantification of Specific Project Benefits by Project Type

**Project benefits for water efficiency projects that result in quantifiable and sustained water savings or improved water management—and which increase water supply reliability for ecological values.**

There will be no quantifiable water savings.

#### **Project Benefits for Drought Resiliency Projects Related to Fish and Wildlife**

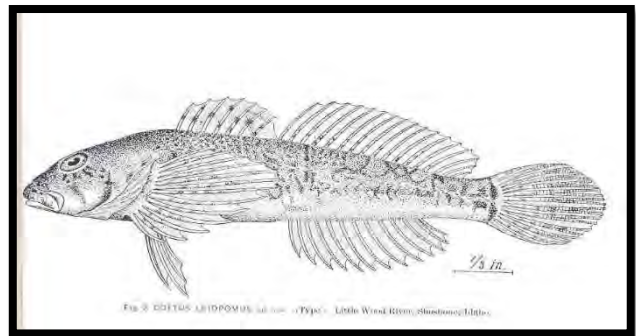
1. *What are the types and quantities of environmental benefits provided, such as the types of species and their numbers benefited; acreage of habitat improved, restored, or protected; or the amount of flow provided? How was this estimate calculated?*

The species that would benefit from this project include the Wood River Sculpin, Rainbow Trout, and Brown Trout. The Wood River Sculpin is classified by the Bureau of Land Management as "Sensitive Species Type 2," by the US Forest Service Intermountain Region as "Sensitive Species," and by Idaho Fish and Game as "Protected Non-game" – see <https://idfg.idaho.gov/species/taxa/15570>.

Fishes of Idaho indicates that a Natural History Survey by Sigler and Zaroban says the following about Wood River Sculpin, "Wood River Sculpin are prevalent to the Wood River Basin of South-central Idaho. This characteristic makes them an important natural history entity. They serve as important forage for other piscivorous taxa, particularly native salmonids, and contribute to the circulation of energy and nutrients in Idaho aquatic ecosystems."

"Wood River Sculpin are considered an imperiled species (G2/S2), are at risk because of restricted range and other factors, and are classified as protected non-game species by the State of Idaho. Potential threats to Wood River Sculpin include human-accelerated rates of streambed sedimentation, stream channelization, flow alteration, introductions of piscivorous fishes, and degraded water quality."

Figure 11 Wood River Sculpin



Note that this project helps address the "flow alteration" threat. While the project does not provide additional water, it provides a mechanism whereby these sculpins can migrate upstream when flows get low. Under current conditions, there is no way for sculpin to pass upstream of diversion 45 (D45).

Rainbow Trout and Brown Trout are important game-fish in this area of the Big Wood River. These trout can pass upstream over the diversion during higher flows; however, when the fish passage is essential at low flow, passage becomes very difficult as the river runs dry. Even when water is present in some pools downstream from the diversion, reduced water depths make fish vulnerable to predation and increase the water temperature. In these cases, fish would benefit by moving upstream from the diversion.

2. *If the project will make more water available, or make water available at a more advantageous time or location, how much additional water will be made available? Describe the amount of estimated water (in acre-feet per year) expected to be made available directly from the project. Please include a specific quantifiable water contribution estimate and describe the support/documentation for this estimate, including a detailed explanation of how the estimate was determined.*  
N/A.
3. *How is the species or habitat impacted by drought?*

Drought impacts fish and their habit every year. As previously stated, many fish die because they cannot get upstream. Each year, during low flow, BOC, TU, and other stakeholders

participate in fish rescues to relocate the fish over the dam in the river. This past year with the extreme drought was more critical than ever before. A rescue just below the dam at Diversion 45 rescued at least 12,000 fish. [Unfortunately, thousands of fish could not be saved, as shown in this video "Big wood River Kill at Bellevue 8/31/21."](#)

4. *If the proposed project will benefit federally listed threatened or endangered species please consider the following elements:*

The Wood River Sculpin is classified by the Bureau of Land Management as "Sensitive Species Type 2," by the US Forest Service Intermountain Region as "Sensitive Species," and by Idaho Fish and Game as "Protected Non-game," but these are not listed threatened or endangered species. **There are no known** listed or endangered fish species in this section of the Big Wood River.

### **Project Benefits for Watershed Management Projects**

1. *If the project will result in long-term improvements to water quality (e.g., decrease sediment or nutrient pollution, improve water temperature, or mitigate impacts from floods or drought) please explain the extent of those benefits (i.e., magnitude and geographic extent). Please estimate expected project benefits to water quality and provide documentation and support for this estimate, including a detailed explanation of how the estimate was determined.*

This project **does not** result in measurable long-term improvements to water quality; however, when obstructions, such as diversion dams, are placed in the channel of rivers, it lowers water velocities and decreases the flow's ability to carry material. This results in material deposition upstream from the obstruction (diversion dam). The deposited material raises the channel bottom, decreasing the flow capacity of the channel and ultimately increasing flooding because the channel cannot carry as much water. Cutting a notch in the diversion dam apron will help flush material deposited upstream from the diversion downstream, ultimately reducing vertical channel restriction upstream and alleviating flood risks upstream from the diversion. Construction of a bankfull bench and revegetation of the project area will also spread flood flows and anchor stream banks downstream from the diversion, thereby reducing flooding in that area. Eliminating the vertical drop downstream from the diversion structure and cutting a notch in the diversion apron will also create a lowered thalweg and help move bedload material downstream past the diversion.

2. *If the project will benefit aquatic or riparian ecosystems within the watershed (e.g., by reducing flood risk, reducing bank erosion, increasing biodiversity, or preserving native species), please explain the extent of those benefits (i.e., magnitude and geographic extent). Please estimate expected project benefits to ecosystems and provide documentation and support for this estimate, including a detailed explanation of how the estimate was determined.*

The project **does not** provide measurable water quality or any additional water during drought conditions; however, it does provide a way for fish to exit the area when drought conditions occur, which causes high water temperatures and a dry river. When trout are present in a section of the river that is getting too warm or going dry, they naturally try to move out of that section. This has been observed regularly in the adjacent Big Lost River drainage where fish have moved several miles as river sections go dry. The Big Wood River downstream from Diversion 45 experiences low flows during drought conditions, resulting in warm water temperatures and occasionally going dry. Under current low flow conditions, fish in this section of the river are trapped in this area and cannot pass upstream over Diversion 45. This project will make low

flow passage at the diversion possible; thus, benefiting fish during drought conditions. This benefit will be provided for the project's life, designed to withstand the 100-year flood event.

3. *If the project will benefit specific species and habitats, please describe the species and/or type of habitat that will benefit and the status of the species or habitat (e.g., native species, game species, federally threatened or endangered, state listed, or designated critical habitat). Please describe the extent (i.e., magnitude and geographic extent) to which the project will benefit the species or habitat, including an estimate of expected project benefits and documentation and support for the estimate.*

As stated previously, the types of species that would benefit from this project include the native Wood River Sculpin, Rainbow Trout, and Brown Trout. The Wood River Sculpin is classified by the Bureau of Land Management and others as "Sensitive Species." When trout are present in a section of the river that is getting too warm or going dry, they naturally try to move out of that section. During drought conditions, the Big Wood River downstream from Diversion 45 experiences low flows, resulting in warm water temperatures, and this year, the river went dry due to the extreme drought. The fish were trapped in this river area and could not pass upstream over the diversion, and thousands of fish died! The project does not provide any additional water during drought conditions; however, it does provide a way for fish to exit the area when drought conditions occur and cause high water temperatures and a dry river.

This project will make low flow passage at Diversion 45 possible; thus, benefiting fish during low flow and drought conditions. The project will be designed to withstand a 100-year flood event. Floods that greatly exceed the 100-year event will likely result in more significant issues that are hard to predict. However, we expect this fix to last for multiple decades.

4. *Are there project benefits not addressed in the preceding questions? If so, what are these benefits?*

N/A.

**Project benefits for multi-benefits projects: If applicable, please describe the extent to which the project will benefit multiple water uses. Please do not repeat information included in your prior responses.**

The previously listed projects and the BOC project will provide safety and accessibility as the riverbanks and dam are stabilized. As mentioned earlier, the project area in its current state presents hazards to recreationalists – rafters and such – in that as water spills over the diversion onto rocks and pieces of concrete, it travels deep toward the river's bottom and then "reverses" back onto itself, making larger or more powerful "holes" that can quickly stop and flip rafts and can become hazardous to people outside of rafts.

### Evaluation Criterion B – Collaborative Project Planning (25 points)

1. *Was the proposed project described in your application developed as part of a collaborative process by:*

- *A water user and one or more stakeholders with diverse interests (i.e., stakeholders representing different water use sectors such as agriculture, municipal, tribal, recreational, or environmental)?*

In 2019, the Wood River Land Trust and a collaborative group of stakeholders worked together to complete a reach-wide assessment and conceptual design plan for the Big Wood River near Bellevue, Idaho. The planning area consisted of approximately a one-mile reach

of Big Wood River from the Broadford Road Bridge in Bellevue downstream to the southern extent of the Riverside Subdivision (Bellevue Reach).

The Plan is called the Conceptual Restoration Design Report Big Wood River Restoration Bellevue Project Area (2019 Plan) and was an effort to maximize the ecological values of the fluvial system while protecting adjacent landowners and land uses from severe erosion. The 2019 Concept Plan's primary strategy was to restore function through in-channel treatments that enable the river to convey hydrologic and sediment inputs without severe erosion or deposition. See Attachment D – 2019 Conceptual Plan, Pages 1-3.

The stakeholders involved in the planning process included:

- Board of Control
- Trout Unlimited
- The Wood River Land Trust
- The City of Bellevue
- The Nature Conservancy
- Idaho Fish and Game
- Riverside Estates
- Idaho Flood District #9

2. *Describe the strategy or Plan that supports your proposed project.*

- *When was the Plan or strategy prepared and for what purpose?*

The Plan was developed in 2019 to complete a reach-wide assessment and conceptual design plan for the Big Wood River near Bellevue, Idaho. The planning area consisted of approximately a one-mile reach of Big Wood River from the Broadford Road Bridge in Bellevue downstream to the southern extent of the Riverside Subdivision (Bellevue Reach).

- *What types of issues are addressed in the Plan? For example, does the plan address water quantity issues, water quality issues, and/or issues related to ecosystem health or the health of species and habitat within the watershed?*

The Plan was developed to address the primary strategy for restoring function through in-channel treatments that enable the river to convey hydrologic and sediment inputs without severe erosion or deposition and provide fish passage while stabilizing the diversion structure and allowing for the continued diversion of water to the irrigators. See Attachment D – 2019 Conceptual Plan, Pages 1-3.

- *Is one of the purposes of the strategy or Plan to increase the reliability of water supply for ecological values?*

Yes, along with ways to maintain diversion functionality and operations, channel stability, diversion structure stability, improve fish passage and sediment transport and routing, increase riparian vegetation and channel margin vegetation characteristics, and enhance instream aquatic habitat conditions.

- *Does the project address an adaptation strategy specifically identified in a completed WaterSMART Basin Study or Water Management Options Pilot (e.g., a strategy to mitigate the*

*impacts of water shortages resulting from climate change, drought, increased demands, or other causes).*

No, not that we are aware of.

3. *Was your strategy or Plan developed collaboratively?*

- *Who was involved in preparing the Plan? Was the Plan prepared with input from stakeholders with diverse interests (e.g., water, land, or forest management interests; and agricultural, municipal, tribal, environmental, recreation uses)? What was the process used for interested stakeholders to provide input during the planning process?*

As stated below, within the stakeholder support section question 1, the Plan was developed collaboratively with many stakeholders.

- *If the Plan was prepared by an entity other than the applicant, explain why it is applicable.*  
BOC, the Wood River Land Trust, and TU worked together to prepare this Plan. The Wood River Land Trust obtained the funding to prepare the Plan.

4. *Describe how the Plan or strategy provides support for your proposed project.*

- *Does the proposed project implement a goal or need identified in the Plan? Describe how the proposed project is prioritized in the referenced Plan or strategy.*

Within the 2019 Plan, several alternatives were developed to fulfill the goals and objectives of the Plan. This alternative was selected for its benefits to irrigators and habitats to restore fish passage and improve sediment transport at the dam while maintaining diversion functionality, stabilizing the existing diversion, increase safety, and improving riverine and floodplain conditions. See Attachment G – Design Report Memo, Pages 4-6.

### Evaluation Criterion C – Stakeholder Support (15 points)

1. *Please describe the level of stakeholder support for the proposed project. Are letters of support from stakeholders provided? Are any stakeholders providing support for the project through cost-share contributions, or through other types of contributions to the project?*

- **Board of Control (BOC)** for the Wood River Valley Irrigation District is the sponsor and will be contributing matching funds from the Wood River Irrigation District 45 and Triangle Irrigation District.
- **Trout Unlimited (TU)** participated in the 2019 Planning process. After the alternative was selected, TU applied for a grant to prepare the design and will continue to work with BOC to apply for additional funding for the non-Federal match.
- **The City of Bellevue** participated in the 2019 Planning process and will work with BOC and TU to allow project access through the Howard Preserve.
- **Wood River Land Trust** acquired the funding to prepare the 2019 Plan and will be working closely with BOC and TU to facilitate financing for the construction of this project.
- **The Nature Conservancy** participated in the 2019 Planning process and has submitted a letter of support for the project.
- **Idaho Fish and Game** participated in the 2019 Planning process and has submitted a letter of support for the project.
- **Idaho Flood Control District #9** participated in the 2019 Planning process and has submitted a letter of support for the project.

- **Riverside Estates** is a residential community near the Big Wood River area in Bellevue that participated in the 2019 Planning process and supports this project.  
See Attachment E – Letters of Support.

2. *Please explain whether the project is supported by a diverse set of stakeholders (appropriate given the types of interested stakeholders within the project area and the scale, type, and complexity of the proposed project). For example, is the project supported by entities representing agricultural, municipal, tribal, environmental, or recreation uses?*

As stated above, many different stakeholders participated in the planning process and supported this project. In 2017, the Big Wood River experienced a large magnitude flood, which resulted in widespread changes in the river corridor. Recorded flow data indicates that 2017 peak flows were approximately three times higher than average and that the 2017 runoff period experienced multiple distinct flood peaks. The multiple, prolonged, large peaks in floodwaters caused extensive flooding, riverbank and bed erosion, gravel deposition, and large wood recruitment within the Bellevue project reach. Private lands were impacted by erosion, flood protection levees were compromised, and residential structures were threatened. The 2019 planning process brought together agricultural, municipal, residential, environmental, and recreational users to plan for and restore the function of the river through in-channel treatments. It was and is a collaborative effort that continues to move forward, implementing projects yearly to preserve the river's ecological values. See Question 4 below for a list of completed and planned projects developed through the planning process.

3. *Is the project supported by entities responsible for the management of land, water, fish and wildlife, recreation, or forestry within the project area? Is the project consistent with the policies of those agencies?*

Idaho Fish and Game, the City of Bellevue, BOC, and Wood River Land Trust are just a few of the entities responsible for this area of the Big Wood River. These entities understand the importance of this project and have worked together to fulfill the objectives of the 2019 Plan that incorporate many of their management policies.

Relevant river and floodplain conditions identified in the 2019 Plan during site assessments indicate that the lower reaches of the project area lack capacity to convey the bedload, and have experienced widespread deposition, lateral migration, and bank erosion. BOC's project aims to address these issues to help protect infrastructure and facilities next to the river while restoring fish passage and functionality of this area of the river.

4. *Will the proposed project complement other ongoing water management activities by state, Federal, or local government entities, non-profits, or individual landowners within the project area? Please describe other relevant efforts, including who is undertaking these efforts and whether they support the proposed project. Explain how the proposed project will avoid duplication or complication of other ongoing efforts.*

The Wood River Land Trust and other agencies in the area have already taken on projects that will enhance BOC's project and provide additional benefits to this reach of the river. Today, two of the projects from the 2019 Plan and the design for the proposed project have been completed, and one other project is scheduled to be completed next year. These include the following:

- Bank Stabilization and Enhancement – February 2020



- Lower Howard Preserve – March 2021
- Diversion 45 Stabilization Fish Passage Remediation Design – March 2021
- The Bellevue Side Channel Enhancement – To be completed next year

This proposed project will not be duplicated in the other projects listed above, but will increase the sustainability of the river and provide environmental and ecological resiliency for the fish and other species that inhabit the river.

5. *Is the project completely or partially located on Federal land or at a Federal facility? If so, explain whether the agency supports the project, whether the agency will contribute toward the project, and why the Federal agency is not completing the project.*

The project is not located on Federal land nor at a Federal facility.

6. *Is there opposition to the proposed project? If so, describe the opposition and explain how it will be addressed. Opposition will not necessarily result in fewer points.*

There was little to no opposition to this project as people came together and understood the issues. Many irrigators, anglers, recreational users, the City of Bellevue, environmental groups, landowners, the Wood River Land Trust, and many others feel that this project is vital. These stakeholders participated in the planning process and worked together to evaluate the possible alternatives. They have helped find funding and have worked together to complete other projects listed within the Plan. Many support and understand the need to provide a fish passage to save the fish, stabilize the dam, and reduce the current safety issues to rafters as they travel through this area.

#### Evaluation Criterion D – Readiness to Proceed (10 Points)

1. *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. This may include, but is not limited to, design, environmental and cultural resources compliance, permitting, and construction/installation.*

- **Reclamation Contract:** August/September 2022
- **Environmental Review to be Prepared by Reclamation:** August 2022 – March 2023
- **Design:** Additional design and investigation based on dam structure stabilization and the environmental review's requirements. August 2022 – January/February 2023
- **Permits:** Programmed to be submitted March 2022, anticipate receiving approval by July/August 2022
- **Bidding:** March/May 2023
- **Construction:** August 2023 – January 2024
- **Project Closeout and Final Reports:** January/February 2024

2. *The project budget outlining costs for specific tasks should identify costs associated with the tasks in your project schedule, and all contractor costs should be broken out to identify the specific tasks included in those costs.*

This has been addressed within the budget and the budget narrative.

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

The Floodplain Permit from the City of Bellevue, and the joint permit from the U.S. Army Corps of Engineers (Corps), the Idaho Department of Water Resources (IDWR), and the Idaho

Department of Lands (IDL) will be applied for in March 2022. Work to continue securing the permits is ongoing and is anticipated to be approved by July/August 2022.

4. *Identify and describe any engineering or design work performed specifically in support of the proposed project, or that will be performed as part of the project. Priority will be given to projects that are further along in the design process and ready for implementation.*

The project has a 60 to 75 percent design. The design was developed in March 2021; however, the cost estimates have changed based on the economy and bidding climate. Additional design work will be needed to meet the environmental review's needs and address the dam stabilization and investigation. Additional design costs have been added to complete the design and address any other issues. See Attachment F – Project Design Plans and Specs for the existing designs and specs, and Attachment G – Design Report Memo.

5. *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 so, please provide documentation. If the applicant does not yet have permission to access the project location, please describe the process and timeframe for obtaining such permission.*

The City of Bellevue is a stakeholder in the project, and BOC has access easements as part of their regular maintenance agreements for the diversion structure and canal. In March 2021, BOC submitted permit applications to the City of Bellevue to request additional access areas within the Howard Preserve for the project's development.

6. *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. Describe any new policies or administrative actions required to implement the project.*

The Reclamation office was contacted to discuss the environmental requirements and costs associated with the environmental review. A line item has been included in the budget for compliance based on that conversation and for a FEMA CLOMR/LOMR analysis that will likely need to be completed.

#### Evaluation Criterion E – Performance Measures (5 points)

1. *Please describe the performance measures that will be used to quantitatively or qualitatively define actual project benefits upon completion of the project. Include support for why the specific performance measures were chosen.*

The project benefits that can be measured upon completion include eliminating a vertical drop, fish passage to reduce the need for fish salvage, and maintaining a two percent grade riffle.

The elimination of the vertical drop is an essential benefit because the Wood River Sculpin and other fish species in the river have been unable to pass upstream over the vertical drop during low flow times without assistance, especially during drought years. Development and maintenance of the fish passage will be determined by examination by a fisheries biologist to ensure that fish can pass upstream over the material placed within the project. The measurement of these benefits includes evaluating gradient, velocity, water flow/depth, and reducing the need for yearly fish salvage events.

The two percent grade riffle is vital to maintain and measure because the placed material is engineered to withstand the sheer stress associated with a riffle this steep. If material starts to erode, the riffle will become steeper, increasing the likelihood that additional material has eroded and requiring critical adaptive management measures.

- All applicants are required to include information about plans to monitor improved streamflows, aquatic habit, or other expected project benefits. Please describe the Plan to monitor the benefits over a five-year period once the project has been completed. Provide detail on the steps to be taken to carry out the Plan.*

BOC and TU will work together to monitor the improvements and benefits by preparing photo points, surveys, and visual inspection schedules for fish passage over five years. In addition, they will prepare "as-built" cross-sections and longitudinal profile surveys after construction to have a baseline to measure. Visual assessments will be performed every year, and surveys and photo points will be repeated after years 1, 3, and 5, and then as needed, depending on spring flows or photo point differences. The repeated surveys will show graphically whether the material is moving or not, and the photo points will visually show the same thing.

BOC and TU will track fish salvage and see if it decreases once the fish can leave the area independently. This measurement is difficult to have a blanket statement on if the project is successful or not; however, fish salvage is dependent on many other factors such as population size, when the area goes dry, and how long it has been since it was previously dry. Still, it cannot be the final measurement due to many factors that change each year within the Big Wood River drainage area. It is the hope that the implementation of this project will reduce the need to perform multiple fish salvage events per year or at least reduce the number of fish that need to be salvaged.

#### Evaluation Criterion F – Presidential and Department of the Interior Priorities (10 points)

**Climate Change:** *E.O. 14008 emphasizes the need to prioritize and take robust actions to reduce climate pollution; increase resilience to the impacts of climate change; protect public health; and conserve our lands, waters, oceans, and biodiversity.*

- How will the project build long-term resilience to drought? How many years will the project continue to provide benefits? Please estimate the extent to which the project will build resilience to drought and provide support for your estimate.*

The project does not provide any additional water during drought conditions; however, it does provide a way for fish to exit the area when drought conditions occur and cause high water temperatures and dry rivers. When trout are present in a section of the river that is getting too warm or dry, they naturally try to move out of that section. As stated previously, fish have been regularly observed moving several miles in the adjacent river drainages as sections of the river go dry. The Big Wood River downstream from Diversion 45 has experienced low flows in normal and drought conditions, resulting in warm water temperatures and occasionally with the river going dry. Under these conditions, fish are trapped and cannot pass upstream over Diversion 45. This project will make low flow passage of Diversion 45 possible; thus, benefiting fish during drought conditions. This benefit will be provided for the project's life, designed to withstand the 100-year flood event. Floods that greatly exceed the 100-year event will likely result in more significant problems than just impacts to this project, which are hard to predict. See Attachment G – Design Report Memo, Pages 7-9, Hydraulic Modeling Results.

2. *In addition to drought resiliency measures, does the proposed project include other natural hazard risk reductions for hazards such as wildfires or floods?*

In addition to eliminating the vertical drop downstream from the diversion structure, the work also involves cutting a notch in the diversion apron, which will create a lowered thalweg. This will function to help move bedload material downstream past the diversion. When obstructions, such as diversion dams, are placed in the channel of rivers, it lowers water velocities and decreases the flow's ability to carry material. This results in material deposition upstream from the obstruction (diversion dam). The deposited material raises the channel bottom, decreasing the flow capacity of the channel and ultimately increasing flooding because the channel cannot carry as much water. Cutting a notch in the diversion dam apron will help flush material deposited upstream from the diversion downstream, ultimately reducing vertical channel restriction upstream and alleviating flood risks upstream from the diversion. Construction of a bankfull bench and revegetation of the project area will also serve to spread flood flows and anchor stream banks downstream from the diversion, thereby reducing flooding in that area.

3. *Will the proposed project establish and use a renewable energy source?*  
N/A.
4. *Will the proposed project reduce greenhouse gas emissions by sequestering carbon in soils, grasses, trees, and other vegetation?*  
N/A.
5. *Does the proposed project include green or sustainable infrastructure to improve community climate resilience such as reducing the urban heat island effect, lowering building energy demands, or reducing the energy needed to manage water? Does this infrastructure complement other green solutions being implemented throughout the region or watershed?*  
N/A.
6. *Does the proposed project seek to reduce or mitigate climate pollutions such as air or water pollution?*  
N/A.
7. *Does the proposed project have a conservation or management component that will promote healthy lands and soils or serve to protect water supplies and its associated uses?*  
N/A.
8. *Does the proposed project contribute to climate change resiliency in other ways not described above?*  
N/A.

**Disadvantaged or Underserved Communities:** *E.O. 14008 and E.O. 13985 affirm the advancement of environmental justice and equity for all through the development and funding of programs to invest in disadvantaged or underserved communities.*

Many farmers and ranchers have been eligible to receive benefits from various Farm Act programs to help them through economically challenging times. This year is no exception, especially with this year's megadrought. Farmers and ranchers in the area have had to reduce their watering turns, and with this, have seen a reduction in crop production, resulting in a loss of income. This grant opportunity and the ability to work with BOC's partners have provided a chance for BOC to stabilize their diversion structure by reducing scouring and providing a way to still deliver their water, even in extreme drought conditions. The diversion structure requires essential changes to allow for the ability to divert water into the canal and allow for fish passage. The diversion structure is costly to replace and can be a considerable burden for the 100-or-so irrigators. This

project will benefit irrigators by stabilizing the dam and giving access to miles of habitat. The project is cost-effective, collaborative, and eco-friendly, and will significantly impact the preservation of the river and recreational opportunities for all levels of income and race.

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

There are no tribal benefits.

## Project Budget

---

### Funding Plan and Letters of Commitment

---

*Describe how the non-Federal share of project costs will be obtained.*

BOC will be providing funds from their shareholder assessments. TU is in the process of applying for or will apply for grant funds to help cover the cost-share required to complete the project.

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

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

\$210,000 will be contributed by the BOC and its partner, TU, through grants and assessments.

- *Any costs that will be contributed by the applicant.*  
See above.

- *Any third-party in-kind costs (i.e., goods and services provided by a third party).*  
N/A.

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

**Resources Legacy Fund (RLF):** TU applied for funding from RLF to help fund construction for this project and has been awarded \$80,000. See TU letter of support for this commitment in Attachment E – Letters of Support.

- *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.*

If any of the identified funding applications below are unsuccessful, we are confident that the other sources will sufficiently cover the required cost-share.

**Idaho Water Resource Board Flood Management Grants:** Three other sub-projects from the Bellevue mile-long design have successfully received funding from this program over the last couple of years. The grant application period begins in June each year, and we would expect to receive a response by July 2022.

**Blaine County Land, Water & Wildlife Program:** This program is made possible by the citizens of Blaine County, who approved a two-year levy that raised over \$3.3 million from a portion of property taxes. These funds are available and are helping to protect

some of the County's natural resources. This program has approximately \$400,000 remaining to be allocated. We would expect to receive a response by June 2022.

**Wood River Land Trust (WRLT):** The Wood River Land Trust (WRLT) supports this project, and they may be able to provide a small amount of funding to ensure its completion. We expect to receive a response from WRLT by May 1, 2022.

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

- *The project expenditure and amount.*  
N/A.
- *The date of cost incurrence.*  
N/A.
- *How the expenditure benefits the project.*  
N/A.

## Budget Proposal

*Table 1 – Total Project Cost Table*

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$629,000
Costs to be paid by the applicant and partner	\$210,000
Value of third-party contributions	\$0
<b>Total Project Cost</b>	<b>\$839,000</b>

*Table 2 – Summary of Non-Federal and Federal Funding Sources*

Funding Sources	Amount
Non-Federal Entities	
1. BOC and TU	\$130,000
2. Resources Legacy Fund	\$80,000
Non-Federal Subtotal	210,000
<b>Requested Reclamation Funding</b>	<b>\$629,000</b>

*Table 3 – Budget Proposal*

Budget Item Description	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
Salaries and Wages				\$
Fringe Benefits				\$
Travel				\$

<b>Equipment</b>				\$
<b>Supplies and Materials</b>				\$
<b>Contractual /Construction</b>				<b>\$749,000.00</b>
<b>Site Analysis</b>				
Project Review	\$20,000/ EA	1	EA	\$20,000.00
Pre-Construction Survey	\$7,500/EA	1	EA	\$7,500.00
Dam and Irrigation Interaction Analysis	\$20,000/EA	1	EA	\$20,000.00
FEMA CLOMR/LOMR Analysis	\$50,000/EA	1	EA	\$50,000.00
<b>Site Work</b>				
Clearing and Grubbing	\$10,000/EA	1	EA	\$10,000.00
Dewatering	\$50,000/EA	1	EA	\$50,000.00
Site Surface Repair	\$5,000/AC	3	AC	\$15,000.00
Construction Oversight	\$26,580/EA	1	EA	\$26,580.00
<b>Dam Work</b>				
Concrete Removal and Disposal	\$275/CY	35	CY	\$9,625.00
Alluvium Fill in Dam	\$30/CY	300	CY	\$9,000.00
Upstream Grade Control	\$52,000/EA	1	EA	\$52,000.00
Dam Top Concrete Install	\$650/CY	70	CY	\$45,500.00
<b>Notch Work</b>				
Concrete Removal and Disposal	\$275/CY	4	CY	\$1,100.00
Rip Rap Salvage	\$15/CY	40	CY	\$600.00
Notch Concrete Install	\$650/CY	10	CY	\$6,500.00
Alluvium Fill in Dam	\$30/CY	36	CY	\$1,080.00
<b>Rock Ramp</b>				
Ramp Fill	\$85/CY	1200	CY	\$102,000.00
Alluvium Fill	\$20/CY	630	CY	\$12,600.00
Bench and Bench Rock Install	\$25/CY	375	CY	\$9,375.00
Bench Rock	\$80/CY	300	CY	\$24,000.00
Ramp Boulders	\$250/EA	141	EA	\$35,250.00
<b>Woody Material Erosion Control</b>				
Two Log Jam	\$2,900/EA	7	EA	\$20,300.00
Cuttings	\$10/EA	540	EA	\$5,400.00
<b>Contractor Mobilization/Demobilization</b>	15%/EA	1	EA	\$65,386.00

<b>Construction Engineering Design/ Project Management and Reporting</b>	25%/EA	1	EA	\$150,000.00
<b>Third-Party Contributions</b>				<b>\$0.00</b>
<b>Other</b>				<b>\$90,000.00</b>
Environmental	\$			\$90,000.00
<b>Total Direct Costs</b>				<b>\$839,000.00</b>
<b>Indirect Costs</b>				<b>\$0.00</b>
Type of rate	Percentage	\$base		-
<b>Total Estimated Project Costs</b>				<b>\$839,000.00</b>

## Budget Narrative

### *Salaries and Wages*

BOC staff salaries or wages **will not** be included; all services will be contracted. BOC's staff time will be over and above the project's cost.

### *Fringe Benefits*

No fringe benefits will be required.

### *Travel*

No travel will be necessary.

### *Equipment*

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

### *Materials and Supplies*

Materials and Supplies will be part of the contracted portion of the project and documented as required.

### *Contractual*

To determine unit costs included in the cost estimate for this project, BOC relied upon the Big Wood River Diversion Dam Remediation Project 60% Design prepared in 2020 and updated in 2021. Contract unit prices from similar projects recently completed and reviewed by a local contractor were used to estimate these costs. BOC followed its procurement process and procured consulting services before applying for these funds. The contractual costs are estimates for each component to construct the project. BOC will bid the construction portion of the project to several prequalified construction companies. Generally, the low bidder will be selected based on a determination of acceptable qualifications.

### *Third-Party In-Kind Contributions*

There will be no third-party in-kind contributions.



#### *Environmental and Regulatory Compliance Costs*

After consulting with the Reclamation office, it is expected to take \$90,000 to evaluate the required information, prepare the report, and update any changes required from Reclamation. The cost is based on conversations with the local Reclamation office and their estimated cost to prepare the environmental review (ER).

#### *Other Expenses*

The environmental review is listed under other expenses within the budget.

#### *Indirect Costs*

No indirect costs are included.

## **Environmental and Cultural Resources Compliance**

---

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

Impacts will be those associated with constructing rock ramps within the river, notching the diversion structure to allow for fish passage, and creating multiple rock drop structures. The surface vegetation will be restored upon completion of the project.

*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?*

The ER will allow for documentation of any species listed or proposed as a Federal threatened or endangered species or designated critical habitat. At this time, BOC is not aware of any. If there are any, this project will benefit these threatened or endangered species or designated critical habitat in the project area by allowing fish passage and improving sediment within the project area.

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

Yes, the project will require working within the river to implement the elements of the project, which include constructing rock ramps, notching the diversion structure to allow for fish passage, and creating multiple rock drop structures.

*When was the water delivery system constructed?*

The water delivery system (canals and diversion structure) was constructed around 1915-1925. A major upgrade on Diversion 45 was done in the early 60s.

*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.*

A cultural resource inventory will be completed as part of the submitted environmental document.

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

A cultural resource inventory will be completed as part of the submitted environmental document.

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

BOC is not aware of any impacts to or locations of archeological sites.

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

No, the project will not have a negative impact on these populations.

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

No, there are no known tribal sites in the area, and most, if not all, of the work will be within the river.

*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 is not anticipated to contribute to the spreading of noxious weeds; however, during the ER, it will be reviewed and considered.

## Required Permits or Approvals

---

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

Work will continue in order to secure the following permits. It is anticipated that they will be approved by July/August 2022.

- The Floodplain Permit from the City of Bellevue **will be applied for** in March 2022.
- The U.S. Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) joint permit **will be applied for** in March 2022.

## Letters of Support and Letters of Partnership

---

*Include letters from interested stakeholders supporting the proposed project.*

Letters of support from the following have been included and are found in Attachment E – Letters of Support.

- Flood Control District #9 – Bryan Dilworth, Commissioner
- Idaho Department of Fish and Game, Magic Valley Region – Craig White, Regional Supervisor
- The Idaho chapter of The Nature Conservancy – Neil Crescenti, Agriculture Program Manager
- Wood River Trust – Ryan Santo, River Program Director
- The City of Bellevue – Ned Burns, Mayor; and Diane Shay, Floodplain Administrator

Bryan Dilworth  
Flood Control District #9  
305 Glendale Rd.  
Bellevue, ID 83313

John Wright  
Wood River Board of Control  
P.O. Box 736  
Bellevue, ID 83313

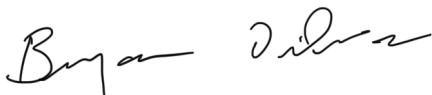
17 November 2021

Dear John,

On 7 June 2021, Jim Gregory, with Trout Unlimited, presented the Big Wood River diversion Dam Remediation Project plans to the board of Flood Control District #9, of which I am a commissioner. The project consists of constructing a 2% grade rock ramp/riffle downstream from the District 45 diversion dam near Bellevue Idaho. The ramp/riffle will be constructed as a roughened channel, that will eliminate the vertical drop downstream from the diversion. The work will also involve cutting a notch in the diversion apron which will create a lowered thalweg. This will function to help move bedload material downstream past the diversion, which will ultimately reduce vertical channel restriction upstream and contribute to alleviating flood risks upstream from the diversion. Construction of a bankfull bench and revegetation of the project area will also serve to spread flood flows and anchor stream banks, thereby reducing the effects of flooding.

Construction for this project was anticipated in late 2022 or early 2023, which was outside our current budget window and therefore funding was not provided for the project at that time. However, the project was well received by the board and Trout Unlimited was invited to present at a future meeting when our budget period overlapped with their implementation schedule. While I can not say, at this time, whether or not the project will receive funding from the Flood Control District, I can say that I support this project as beneficial to reduce flooding and enhance the natural processes and safety of the Big Wood River.

Sincerely,

A handwritten signature in black ink that reads "Bryan Dilworth". The signature is written in a cursive, flowing style.

Bryan Dilworth  
Flood Control District #9 Commissioner



**IDAHO DEPARTMENT OF FISH AND GAME**

MAGIC VALLEY REGION  
324 South 417 East, Suite 1  
Jerome, Idaho 83338

Brad Little / Governor  
Ed Schriever / Director

November 22, 2021

Mr. John Wright, Project Manager  
Board of Control  
PO Box 736  
Bellevue, ID 83313

**RE: Letter of Support: Trout Unlimited, Diversion 45 Dam Remediation Project**

Dear Mr. Wright,

The Idaho Department of Fish and Game (IDFG) is pleased to write in support of your grant application to help fund construction of the Diversion 45 Dam Remediation Project. Specifically, we understand you are applying to the U.S. Bureau of Reclamation for a WaterSMART Environmental Water Resources Project Grant.

We appreciate your efforts to restore fish passage and improve sediment transport at the dam while maintaining diversion functionality, stabilizing the exiting diversion, and improving riverine and floodplain conditions. The Big Wood River is a popular trout fishery that increasingly faces challenges associated with low water flows and degradation of trout habitat. Our understanding is that, upon completion, this project will improve fish passage and river connectivity during low flow conditions.

IDFG recognizes the importance of this project as one of several that are part of a broader effort, led by a diverse group of stakeholders, to restore a reach of the Big Wood River downstream of Diversion 45. Trout Unlimited is a conservation-focused group that has successfully collaborated with IDFG in the past for the goal of sustaining and improving fisheries-related recreation.

In the past, we have routinely supported projects that align with IDFG's mission to preserve, protect, perpetuate, and manage the fish and wildlife of Idaho. We would like to express our support for this effort to improve fish passage and river function in the Big Wood River watershed. Please contact Bradley Dawson (Environmental Staff Biologist; 208-644-6310) at the Magic Valley office for any questions.

Sincerely,

A handwritten signature in black ink that reads "Craig A. White".

Craig White  
Regional Supervisor  
Idaho Dep. Of Fish & Game

*Keeping Idaho's Wildlife Heritage*



Idaho Chapter Office  
950 W. Bannock St.  
Suite 210  
Boise, ID 83702

Tel (208) 343-8826  
Fax (208) 343-8892

[nature.org](http://nature.org)

November 22, 2021

RE: WaterSMART Grant Proposal Letter of Support

Dear WaterSMART Program Administrators,

It is my pleasure to write this letter in support of the WaterSMART project proposal being submitted to the Bureau of Reclamation by Trout Unlimited.

At The Nature Conservancy (TNC) our mission is to conserve land and water upon which all life depends. The Idaho Chapter of TNC is working to create a more sustainable future for the state's water resources through our Resilient Water Supply program. As part of this effort TNC along with Trout Unlimited, The Wood River Land Trust, and Silver Creek Alliance have come together to form the Wood River Water Collaborative to collectively address river flow and water quality goals across the greater Big Wood River Watershed. Through this collaborative effort projects such as the one submitted for consideration by Trout Unlimited for WaterSMART grant funding will achieve scaled outcomes for the region's natural, agricultural, and community landscapes.

The Big Wood River watershed experienced significant drought conditions during the 2021 water year with the 6<sup>th</sup> driest spring on record, low soil moisture conditions, and continuous high temperatures. This confluence of climate driven conditions lead to insufficient flows, fish kills, and administrative curtailment of a significant number of water users in the Valley. The proposed canal improvement project by Trout Unlimited will enhance stream conditions for fish, while maintaining the canal delivery functions for farmers. The combination of enhanced habitat downstream from the dam and maintenance of the infrastructure will prevent the water from becoming disconnected during low flows, while ensuring irrigation delivery is not interrupted.

The project proposed by Trout Unlimited presents the opportunity to create a more resilient water supply for agricultural producers, communities, and aquatic ecosystems, which are necessary adaptations in the face of a changing climate. Adaptation of existing irrigation infrastructure will be a key element to improve the resiliency of the Wood River in the face of climate driven conditions such as those faced this year. The Nature Conservancy is fully supportive of the proposed project and believes that the investment will have a multiplier effect for the greater Big Wood River watershed.

I thank you for the opportunity to be involved in this process and to support such an impactful project.

Best Regards,

A handwritten signature in blue ink that reads "Neil Crescenti". The signature is fluid and cursive, with the first name "Neil" being more prominent than the last name "Crescenti".

Neil Crescenti  
Agriculture Program Manager  
The Idaho Chapter of The Nature Conservancy



Mr. John Wright, Project Manager  
Board of Control  
PO Box 736  
Bellevue, ID 83313

**Board of Directors**

Chair:  
David Woodward

Vice Chair:  
Roland Wolfram

Treasurer:  
Rick Webking

Secretary:  
Barry Bunshoft

Asst Secretary:  
Bob Ordal

Jim Barnes  
Kathleen Bean  
Victor Bernstein  
Karen de Saint Phalle  
Trish Klahr  
Kathie Levison  
Nick Miller  
Rebecca Patton  
David Perkins  
Gayle Stevenson

**Advisory Council**

David Anderson  
Ed Cutter  
Jack Kueneman  
Sue Orb

**Executive Director**  
Scott Boettger



119 E. Bullion Street  
Hailey, Idaho 83333  
Phone: 208.788.3947

**WoodRiverLandTrust.org**  
Federal ID: 82-0474191

Dear Mr. Wright,

The Wood River Land Trust is pleased to write in support of your grant application to help fund construction of the Diversion 45 Dam Remediation Project. Specifically, we understand you are applying to the U.S. Bureau of Reclamation for a WaterSMART Environmental Water Resources Project Grant. We appreciate your efforts to restore fish passage and sediment transport at the dam while maintaining diversion functionality, stabilizing the exiting diversion, and improving riverine and floodplain conditions.

Fish passage barriers is one of the most limiting factors in decreasing survival and productivity of trout populations in the Big Wood River basin. It was evident this year when extreme drought conditions, not observed in decades, caused the reach of river to go dry below the canal and caused a large fish kill. If this project was implemented prior to this year, trout would be able to survive by moving upstream to more and colder water.

Wood River Land Trust recognizes the importance of this project as one of several that are part of a broader effort, led by a diverse group of stakeholders, to restore a mile-long stretch of the Big Wood River in the City of Bellevue. We value our partnership with the irrigators of the Diversion 45 canal and look forward to this project to be implemented and further collaboration on future projects.

We strongly support your grant application and appreciate the advancements it will make to improve the health of the river and associated habitat.

Sincerely,

Ryan Santo  
River Program Director



City of Bellevue  
115 E Pine Street  
PO Box 825  
Bellevue, ID 83313  
208-788-2128 Fax 208-788-2092  
[www.bellevueidaho.us](http://www.bellevueidaho.us)

---

December 2, 2021

Mr. John Wright, Project Manager  
Board of Control  
PO Box 736  
Bellevue, ID 83313

Dear Mr. Wright,

The City of Bellevue is pleased to write in support of your grant application to help fund construction of the Diversion 45 Dam Remediation Project. Specifically, we understand you are applying to the U.S. Bureau of Reclamation for a WaterSMART Environmental Water Resources Project Grant.

We appreciate your efforts to restore fish passage and sediment transport at the dam while maintaining diversion functionality, stabilizing the exiting diversion, and improving riverine and floodplain conditions.

The City of Bellevue recognizes the importance this project as one of several that are part of a broader effort, led by a diverse group of stakeholders, to restore a mile-long stretch of the Big Wood River in the City of Bellevue.

We strongly support your grant application and appreciate the advancements it will make to improve the health of the river and associated habitat.

Sincerely,

A blue ink signature of Ned Burns, consisting of a stylized, cursive "N" and "B" that loops together.

Ned Burns, Mayor  
City of Bellevue

A blue ink signature of Diane Shay, written in a cursive style.

Diane Shay  
Floodplain Administrator, City of Bellevue