

Fulton Ditch Irrigation Efficiency Project – Phase I

Trout Unlimited

Contact: Allison Pardis

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Prism #23-1277

Anticipated SRFB Request:	\$237, 417
Anticipated Trib Comm Request:	none
Other Match:	none
Anticipated TOTAL project budget:	\$237, 417



2023 Upper Columbia Regional Project Pre-Application

* Pre-applications due March 10, 2023 (COB)

*Complete applications due in PRISM April 21, 2023 (COB)

*Revised proposals due in PRISM May 19, 2023 (COB)

*Final revised applications due in PRISM June 26, 2023 (noon)

Project Title *

Fulton Ditch Irrigation Efficiency Project

Contact Information

Sponsor *

Trout Unlimited

Organization

Primary Contact *

Alli Pardis

First and Last Name

E-Mail Address *

allison.pardis@tu.org

Budget Request

Values MAY be duplicative and do not have to equal TOTAL anticipated budget in pre-application.

Anticipated Request - SRFB (standard round)

200,000

Anticipated Request - Tributary Committee

\$

Anticipated Request - BPA Programmatic

\$

Anticipated Other Funding

\$

Anticipated TOTAL Budget *

200,000

Other Funding Source(s)

List Names

Project Location

Briefly describe the location of the project *

This project will occur from the diversion point of the Fulton Ditch on the Chewuch River RM 1.1 and ending where the ditch ends near Lower Bear Creek Access Road
(Example: "The project will occur in the Wenatchee River starting at RM 0.5 and ending at RM 1")

Latitude (decimal degrees) *

48.48368

Longitude (decimal degrees) *

-120.18283

Project subbasin *

- Wenatchee
- Entiat
- Methow
- Okanogan
- Multiple Subbasins

Methow Assessment Unit(s)

Chewuch River-Pearrygin Creek

Choose only AUs that the project directly targets. AUs can be found online at <https://prioritization.ucsrb.org/>

Does the proposed project span multiple assessment units? *

- Yes
- No

List the additional assessment units directly impacted by this proposal.

Methow River Thompson Creek

Reach(es) Name *

Chewuch River Pearrygin 01, Methow River Thompson 07

Reach names can be found online at <https://prioritization.ucsrb.org/>

Identify the reach(es) priority/ reach ranking. Note: If the project involves work in multiple reaches, select "Multiple" and include details in the text box that will appear below. Please reference the Prioritization Web Map: <https://prioritization.ucsrb.org/>. *

- Rank 1
- Rank 2
- Rank 3
- Unranked (not a priority or missing data)
- Multiple reaches (provide details below)

Please detail the reach-ranking of the reaches below

Chewuch River Pearrygin 01 - rank 3; Methow River Thomson 07 - rank 2.

E.g., Reach: Chiwawa River Lower 06 - Rank 1; Reach: Chiwawa River Lower 05 - Rank 2

Project Information

1. What are the project objectives? Objectives support and refine biological goals, breaking them down into small steps. Objectives are specific, quantifiable actions project will complete to achieve the stated goal. Each objective should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound). Note: This exact question is included in the PRISM application. Example format: The project seeks to address [specify limiting factor(s)] for [limiting life stage(s)] by [specific action proposed] to create an estimated [include specific target metrics, as described below] upon implementation in [estimated year]. *

This project seeks to restore reach function by addressing streamflow and temperature limiting factors for spring chinook and summer steelhead in the lower Chewuch River and reaches of the Methow river. The Thompson reach of the Methow River also supports summer chinook spawning and low summer flow is a limiting factor in this reach. This initial phase of the project will assess two alternatives to improve irrigation efficiency on the Fulton ditch which would reduce diversion by an estimated minimum of 5 cfs. This phase will also include selection of the preferred alternative and conceptual design to begin final design and permitting in 2024.

2. What species will the project benefit? *

- Spring Chinook
- Steelhead
- Bull Trout
- Summer Chinook
- Other

3. Select the project's objectives and the associated tracking metrics *

- Design, Monitoring or Assessment
- Acquisition, Easements, Leases
- Fish Passage
- Fish Screening
- Instream Flow
- Instream Habitat (Includes Floodplain & Off-Channel Reconnection)
- Riparian Habitat
- Upland Habitat
- Water Quality
- Wetlands

Instream Flow: Reporting Code

- Miles of stream 'Protected' for adequate flow
- Change in water flow
- Cfs (Cubic feet per second) of water conserved per year

4. Does this project already exist in Salmon Recovery Portal or PRISM? *

- Yes
- No
- Don't Know

5. Has this project been submitted previously for funding through the SRFB and/or other process(es)? *

- Yes
- No
- Don't Know

6. What category is the project? *

- Design
- Restoration
- Assessment
- Protection
- Monitoring

If applicable, what is the secondary project category?

- N/A
- Design
- Restoration
- Assessment
- Protection
- Monitoring

Design and Restoration Proposals

7. What project phase(s) are proposed for completion? *

- Conceptual Design
- Preliminary Design
- Final Design
- Construction

8. Is your project within a completed (or soon-to-be completed) Reach Assessment or other type of assessment (e.g., Rapid Site Assessment, other)?

Please name the assessment

9. Which limiting factors does the project propose to address? *

- Brook Trout
- Coarse Substrate
- Contaminants
- Cover - Boulder
- Cover - Undercut Banks
- Cover - Wood
- Entrainment/Stranding
- Fish Passage Barriers
- Flow - Scour
- Flow - Summer Base Flow
- Food - Food Web Resources
- Harassment
- Icing
- Off-Channel - Floodplain
- Off-Channel - Side-Channels
- Percent Fines/Embeddedness
- Pool Quantity & Quality
- Pools - Deep Pools
- Predators - Adults
- Predators - Juveniles
- Superimposition
- Temperature - Adult Holding
- Temperature - Adult Spawning
- Temperature - Rearing

10. Which life stages will the proposed project address? *

- Adult Migration
- Adult Non-Spawning (Bull Trout)
- Natal Rearing (Bull Trout)
- Subadult Rearing (Bull Trout)
- Fry
- Holding and Maturation
- Smolt Outmigration
- Spawning and Incubation
- Summer Rearing
- Winter Rearing

11. Freshwater Benefits - Describe how will your project improve survival, capacity and/or distribution for target species at the reach scale? *

Summer streamflow and temperature are limiting factors in the lower reach of the Chewuch River, this project is a necessary phase towards implementation and completion of this project to increase summer base flows that are currently diverted through the ditch. Increasing streamflow alleviates high water temperatures (Du et. al., 2020) improving survival of rearing steelhead who may face thermal stressors towards the end of summer. Low streamflow reduces available habitat area where rearing fish can forage and avoid predation, the increased streamflow realized through completion of this project would increase available habitat area for rearing steelhead and spring chinook, by providing more forage area and forage resources (Hakala and Hartman, 2004) that can improve capacity while also increasing cover to improve survival through decreased predation.

12. Temporal Effect - Briefly describe how and to what extent the project would promote natural stream/watershed process consistent with the geomorphology of stream? *

The objective of this project is to restore a portion of natural flow back to the Chewuch River that is diverted at river mile 1.1 into the Fulton Ditch. Natural streamflow can restore sedimentation processes and reduce embeddedness, an at risk limiting factor in the lower Chewuch. Additionally, restored flows can help maintain floodplain connectivity and hyporheic zone.

13. Temporal Effect - How long will it take for the project to achieve its intended response? *

- Less than or equal to 1 year
- 1-10 years
- 10-25 years
- 25-50 years
- Greater than 50 years

14. Temporal Effect - How long will the restoration action and its benefits persist? *

- Less than 10 years
- 10-50 years
- 50+ years

15. Temporal Effect - What level and/or interval of maintenance is anticipated? What is the plan for any anticipated maintenance? *

Once an alternative is selected and the project is implemented maintenance of any ditch infrastructure will be the responsibility of the ditch company or shareholders. Operation and maintenance costs to the ditch will be estimated to determine stakeholders preferred alternative.

16. Methods - Briefly describe the potential (for design) or proposed restoration methods and how they will achieve project objectives. *

The Fulton ditch is an almost 4 mile long earthen ditch that losses a significant quantity of water to conveyance and seepage, this project will assess alternatives that include piping the entirety of the ditch and/or a combination of piping and source switches which would produce water savings of at least and estimated 5 cfs.

Example: Remove 1,000 feet of rip rap and add three large wood structures to promote floodplain inundation.

Project Risk and Economic Benefits

1. What is the landownership? *

private

e.g. private, DNR, Forest Service, etc.

2. Have you secured landowner participation in or acceptance for this project? *

- Yes
- No

Please explain

The ditch company has a board of directors who represent the ditches interests and shareholders. The board of directors is eager to participate in the first phase of this project to assess alternatives and develop a conceptual design of the preferred alternative.

3. Describe any land owner requirements (e.g., design elements, right-of-ways, access agreements, liability waivers, etc.) and if/how they could affect the project

Land owner requirements will not affect the first phase of this project.

4. Will the project raise potential concerns for interest groups (e.g., recreational users) or the community at large (including upstream/ downstream/ adjacent landowners)? *

The project will not raise potential concerns for interest groups or the community at large.

5. Who will have the responsibility to manage and maintain the project? What is the responsibility of current or future landowners? *

Once implemented maintenance and operation of new infrastructure will be the responsibility of the ditch company and shareholders.

6. Are other projects being proposed immediately upstream or downstream of worksite? *

- Yes
 No
 Don't know

7. Please describe the risk of failure associated with this project. *

The risk of failure is low. The Fulton Ditch company previously pursued an efficiency project and at the time did not have all the board members support. All members of the board are now fully supportive of an efficiency project and are eager to pursue funding opportunities to move the project forward.

8. Is there any public outreach planned during and/or after implementation? Does the project build community support for salmon recovery efforts? *

The project will require outreach to water users and shareholders of the ditch company which is an excellent way to build community support for salmon recovery efforts. As more projects are implemented other water users are more likely to pursue efficiency projects.

9. Does the project represent an opportunity for economic benefit? How much benefit does the project create for the dollars invested? *

Increasing flows during low flow periods could provide economic benefit for recreational opportunities in the river like floating and fishing. The primary benefits of this project are increased streamflow for fish.

10. Describe any partnerships, their experience, and types of contributions supporting the project. *

Trout Unlimited is working in partnership with the Fulton ditch company. Many members of the Fulton ditch company have been involved in other irrigator efficiency projects throughout the valley and they are familiar with the process. The ditch company is providing metering data and other necessary information to support an accurate and robust assessment.

Optional Section - Preparation for PRISM

The following questions are identical to the questions RCO requires in the PRISM application. If desired, sponsors can complete associated questions early and incorporate responses into PRISM during the "Complete Application" phase due on April 20, 2023.

Do you want to review and/or pre-populate PRISM questions?

Yes

No

1. Problem Statement: What are the problems your project seeks to address? Include the source and scale of each problem. Describe the site, reach, and watershed conditions. Describe how those conditions impact salmon populations. Include current and historical factors important to understand the problems.

Type here...

2. Describe the limiting factors, and/or ecological concerns, and limiting life stages (by fish species) that your project expects to address.

Type here...

3. What are the project goals? The goal of the project should be to solve identified problems by addressing the root causes. Then clearly state the desired and future condition. Include which species and life stages will benefit from the outcome, and the time of year the benefits will be realized.

Type here...

4. What are the project objectives? Objectives support and refine biological goals, breaking them down into smaller steps. Objectives are specific, quantifiable and the project will complete to achieve the stated goal. Each objective should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound).

Type here...

5. Scope of work and deliverables. Provide a detailed description of each project task/element. With each task/element, identify who will be responsible for each, what the deliverables will be, and the schedule for completion.

Type here...

6. What are the assumptions and physical constraints that could impact whether you achieve your objectives? Assumptions and constraints are external conditions that are not under the direct control of the project, but directly impact the outcome of the project. These may include ecological and geomorphic factors, land use constraints, public acceptance of the project, delays, or other factors. How will you address these issues if they arise?

Type here...

7. How have lessons learned from completed projects or monitoring studies informed this projects?

Type here...

8. Describe the alternatives considered and why the preferred was chosen.

Type here...

9. How were stakeholders consulted in the development of this project? Identify the stakeholders, their concerns or feedback, and how the concerns were address

Type here...

10. Does your project address or accommodate the anticipated effects of climate change?

Type here...

11. Describe the sponsor's experience managing this type of project. Describe other projects where the sponsors has successfully used a similar approach.

Type here...

12. Will veterans (including the veterans conservation corps) be involved in the project? If yes, please describe.

Type here...

Supporting Documents

[Upper Columbia Process Guide 2023](#)

[SRFB Manual 18 \(2023\)](#)

[RCO Application Resources \(2023\)](#)

SAVE/Submit

PROJECT: 23-1277 PLAN, FULTON DITCH IRRIGATION EFFICIENCY PROJECT PHASE 1

Sponsor: Trout Unlimited Inc. Program: Salmon Federal Projects Status: Active

Parties to the Agreement

PRIMARY SPONSOR

Trout Unlimited Inc.

Address 1777 N Kent Street, Suite 100

City Arlington **State** VA **Zip** 22201

Org Type Non-Gov-Nonprofit

Vendor # SWV0050369-00

UBI 601215617

Date Org created

Org Notes

[link to Organization profile](#)

Org data updated

QUESTIONS - PRIMARY SPONSOR

#1: What date was your organization created?

1959

#2: Is your organization registered as a non-profit with the Washington Secretary of State?

Yes

#2a: Please confirm the Unified Business Identifier (UBI) shown above is correct or provide if blank.

602 988 374

#3: How long has your organization been involved in salmon and habitat conservation?

>20 years

#4: Do your organizational documents (charter, bylaws, or articles of incorporation) include the authority for the protection or enhancement of natural resources or related activities?

Yes

Yes, Trout Unlimited's mission is to conserve, protect, and restore North America's coldwater fisheries and their watersheds.

#5: Do your organizational documents (charter, bylaws, or articles of incorporation) provide for an equivalent successor organization in case the nonprofit dissolves?

Yes

Yes, Trout Unlimited's Bylaws state: Upon the dissolution of the Corporation or the winding up of its affairs, the assets of the Corporation remaining after payment, or provision for payment, of all debts and liabilities shall be distributed exclusively to one or more charitable, religious, scientific, testing for public safety, literary, or educational organizations

SECONDARY SPONSORS

No records to display

MANAGING AGENCY

Recreation and Conservation Office

LEAD ENTITY

Upper Columbia Salmon Rcy Bd L

QUESTIONS

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#1: List project partners and their role and contribution to the project.

Trout Unlimited is working in partnership with the Fulton Ditch Company to complete this project. The ditch company has been a great partner--they have been invested and involved throughout project development and are eager to move the project forward. The Fulton Ditch company has shared records, provided site tours, insight in system management details, and helped develop alternatives to be assessed.

External Systems

SPONSOR ASSIGNED INFO

Sponsor-Assigned Project Number

Sponsor-Assigned Regions

EXTERNAL SYSTEM REFERENCE

Source	Project Number	Submitter
HWS	23-1277	DHecker

Project Contacts

Contact Name Primary Org	Project Role	Work Phone	Work Email
Amee Bahr Rec. and Conserv. Office	Project Manager	(360) 867-8585	Amee.Bahr@rco.wa.gov
Sabrina Subia Rec. and Conserv. Office	MAgy Fiscal Contact	(360) 725-3938	Sabrina.Subia@rco.wa.gov
Allison Pardis Trout Unlimited Inc.	Project Contact	(406) 431-5981	allison.pardis@tu.org
Lisa Pelly Trout Unlimited-WA Water Proj	Alt Project Contact	(509) 888-0970	lpelly@tu.org
Theo Burgoon Trout Unlimited-WA Water Proj	Alt Project Contact	(509) 630-6858	theo.burgoon@tu.org
David Hecker	Lead Entity Contact	(208) 869-9446	dave.hecker@ucsr.org

Worksites & Properties

Worksite Name

#1 Fulton Ditch

Planning	Property Name
✓	Fulton Ditch right of way

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Worksite Map & Description

Worksite #1: Fulton Ditch

WORKSITE ADDRESS

Street Address
City, State, Zip

Worksite Details

Worksite #1: Fulton Ditch

SITE ACCESS DIRECTIONS

The Fulton Ditch's point of diversion can be accessed via Uplands Rd. in Winthrop, WA. The first half mile of the ditch can be accessed via public trail and parking area on N. Village Road or by taking the foot bridge across the Chewuch River from Bluff St and Riverside Ave. The remaining 3.5 miles of the ditch pass through a mix of private property.

TARGETED ESU SPECIES

Species by ESU	Egg Present	Juvenile Present	Adult Present	Population Trend
Chinook-Upper Columbia River Spring, Methow River, Endangered	✓	✓	✓	Declining
Steelhead-Upper Columbia River, Methow River, Threatened	✓	✓	✓	Declining
Chinook-Upper Columbia River Summer/Fall, Not Warranted	✓	✓	✓	Stable

Reference or source used

United States National Marine Fisheries Service, West Coast Region (2022). 5-Year Review: Summary & Evaluation of Upper Columbia River Spring-run Chinook Salmon and Upper Columbia River Steelhead: <https://doi.org/10.25923/p4w5-dp31>

TARGETED NON-ESU SPECIES

Species by Non-ESU

Notes

Bull Trout	Adult bull trout migrate through this reach of the Chewuch. The Chewuch has intrinsic potential for bull trout and is designated as critical habitat for feeding, migration, and overwintering (FMO).
Lamprey	There are efforts to reintroduce lamprey in the Chewuch.

Questions

#1: Give street address or road name and mile post for this worksite if available.

Uplands Road, Winthrop WA, Approx. 0.6 miles from the junction of W Chewuch Rd and Uplands Rd.

Project Location

RELATED PROJECTS

Projects in PRISM

PRISM Number	Project Name	Program Name	Current Status	Relationship Type	Notes
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No related project selected

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Related Project Notes

Questions

#1: Project location. Describe the geographic location, water bodies or habitat types, and the location of the project in the watershed, i.e. nearshore, tributary, main-stem, off-channel, etc.

This project is located in the lower Chewuch mainstem river and middle Methow mainstem river. The Fulton Ditch diverts Chewuch River water at river mile 1.1. Streamflow benefits of the project extend from river mile 8.5 of the Chewuch River and river mile 48 of the Methow River, approximately 12 river miles in length.

#2: How does this project fit within your regional recovery plan and/or local lead entity's strategy to restore or protect salmonid habitat? Cite section and page number.

This project strategy to restore salmonid habitat is to enhance instream flow which would help address two limiting factors in the lower Chewuch and middle Methow: summer base flow and temperature. These factors are ranked as unacceptable or at risk in the 9 reaches encompassed by this project. By improving efficiency of the Fulton Ditch, less water will be diverted out of stream. This saved water would be permanently dedicated to instream flow. The Upper Columbia Spring Chinook Salmon and Steelhead Recovery plan identifies increasing streamflow as a short term recovery action in both the Lower Chewuch Assessment unit and Middle Methow Assessment Unit (2007, Recovery Actions Section, pg. 214 & 215). Additionally, permanently dedicating water savings to instream flow protects, maintains and enhances stream conditions, identified as a long term action in the Upper Columbia Recovery Plan (pg. 217). More specifically, the Upper Columbia Recovery Plan identifies increasing flow (pg. 235 - 238) and irrigation efficiencies (pg. 238) as potential habitat actions to address side-channel reconnection, obstruction restoration, water quality restoration, and water quantity restoration action classes towards salmonid habitat restoration. This project applies these habitat actions by developing a more efficient irrigation system for the Fulton Ditch, allow continued agricultural practice and a more reliable water delivery system, while also reducing diverted water from the Chewuch River, increasing streamflow in the lower Chewuch and middle Methow which addresses several limiting factors that affect productivity and abundance of salmonids.

#3: Is this project part of a larger overall project?

Yes

#3a: How does this project fit into the sequencing of the larger project?

This is Phase I of a larger overall project that will include subsequent phases to move the project to implementation and construction. Phase I includes an assessment of ecologically beneficial alternatives and development of a preliminary design of a preferred alternative.

#4: Is the project on State Owned Aquatic Lands? Please contact the Washington State Department of Natural Resources to make a determination. [Aquatic Districts and Managers](#)

No

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Property Details

Property: Fulton Ditch right of way (Worksite #1: Fulton Ditch)

✓ Planning

LANDOWNER

Name Fulton Ditch Company
Address 58B Lower Bear Creek Rd
City Winthrop
State WA Zip 98862
Type Private

CONTROL & TENURE

Instrument Type
Timing Proposed
Term Length
Yrs
Expiration Date
Note

Project Proposal

Project Description

The Fulton Ditch Irrigation Efficiency Project (Phase I) is a restoration project that enhances instream flow in the lower Chewuch River and Middle Methow River. Trout Unlimited will use these funds to develop an ecologically beneficial alternative and preliminary design for the Fulton Ditch system. The Fulton Ditch diverts water from the Chewuch river for irrigation and other water uses, the ditch is an open earthen ditch and much of the diverted flow is lost to conveyance and seepage before it is put towards the intended uses. Spring chinook salmon and steelhead in the Chewuch and Methow Rivers are both limited by low summer flows and high water temperatures. This project is the first phase in developing an efficient irrigation system that meets the needs of the Fulton Ditch water users while also reducing the quantity of water diverted from the Chewuch, enhancing instream flow and reducing high water temperatures that limit salmon, steelhead and other aquatic life in these rivers.

Project Questions

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#1: Problem statement. What are the problems your project seeks to address? Include the source and scale of each problem. Describe the site, reach, and watershed conditions. Describe how those conditions impact salmon populations. Include current and historic factors important to understand the problems.

Low streamflow and high summer temperatures are limiting factors region wide for salmon and steelhead populations. Often when fish need water the most, so do farms. This project seeks to enhance streamflow during the irrigation season by working with the Fulton Ditch Company to improve their aging system that is inefficient and dedicate water saved through these improvements to instream flow. Over appropriation and irrigation withdrawals have exacerbated summer base flows in the Methow basin sometimes completely dewatering reaches of stream. Dewatering and low flow can effect migration by creating low flow barriers or stranding juvenile fish in shallow isolated pools, increasing predation and thermal stressors. Reduced stream flow limits available habitat area for juvenile salmonid rearing, as water depths recede so does habitat area. With less water inundating the stream channel area juvenile fish have access to less refuge area, there is lower production in macroinvertebrates and more competition reducing abundance and productivity overall. Water associated with the Fulton Ditch water right flows from about river mile 8.5 on the Chewuch to river mile 48 on the Methow. The 9 reaches described in these 12 river miles are all limited by streamflow and classified as either unacceptable or at risk. The Chewuch River is subject to ESA target baseflows of 80 cfs and irrigators are curtailed almost annually because flows fall below target baseflows. In some years flows have been recorded as low as 35 cfs in the Chewuch.

Low summer flows have also contributed to increased stream temperatures and poor water quality, compounding limiting factors for salmonids. This limiting factor will only become more prevalent as hydrograph conditions continue to shift and temperatures increase in a changing climate. The Chewuch River is classified as a high risk system susceptible to climate change. Increasing stream temperatures will continue to limit salmon and steelhead in the Chewuch and Methow rivers and climate change will exacerbate these stressors. Enhancing stream flows in these systems will help alleviate these stressors, promote resiliency to climate change, and provide access to cooler refuge streams at higher elevations.

Open ditches need to divert more water than needed for the intended use to ensure that enough water makes it to users at the end of the ditch and to account of seepage loss along the open canal. While being inefficient this type of system is also a vector for pollutants back into river systems, where the canals bypass the conveyance water back into river systems and spill their tail waters. Open ditches travelling through towns and agricultural fields transport nutrients and non-point source waste from these developments back into rivers. The Fulton ditch operates in this way. Once the water is diverted from the Chewuch River it passes through housing developments, the town of Winthrop and then a prominent agricultural area. The ditch bypasses water at various points back into the Chewuch and spills tail water at it's end point into the Methow River. Closed systems not only save water but also reduce the ability of non-point source pollutants to enter the ditch system where they are transported into sensitive aquatic systems, further on demand systems completely eliminate this issues. This project will develop a more efficient irrigation system that would reduce or completely eliminate this source of canal tailwaters into the Chewuch and Methow Rivers.

This project primarily seeks to address low instream flow limiting factors that reduce salmonid abundance and productivity by working with the Fulton Ditch to develop a more efficient system that will benefit water users and fish alike. Because streamflow is closely linked to water temperature and operational requirements of open systems inherently result in tail water runoff this project also seeks to address these issues effecting the Chewuch and Methow Rivers.

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#2: Describe the limiting factors, and/or ecological concerns, and limiting life stages (by fish species) that your project expects to address.

This project will address low summer base flow and temperature limiting factors in the lower Chewuch and middle Methow. Low summer base flow limits adult fish migration and juvenile outmigration for both spring chinook and steelhead. Low flows also limit habitat area for rearing juvenile chinook and steelhead and holding for spring chinook, this can lead to stressors, higher rates of predation, and more competition for limited resources. Limited habitat area reduces spawning area for summer chinook in the middle Methow. A recent study in British Columbia found that chinook spawning in 50% below average normal August flows had a 29% lower productivity rate (Warkentin et al., 2022). In general, low flow effects all salmonid species and lamprey at various life stages and disrupts riverine processes critical to salmon and steelhead life history. High temperatures can limit adult chinook and steelhead migration and holding life stages by leading to stress and in extreme cases fatality. The same is true for juvenile steelhead and chinook, higher water temperature lead to stress and can result in fatalities, reducing juvenile abundance and productivity. The Chewuch River has an instream flow rule of 80 cfs, when flows at the USGS gauge in Winthrop drop below 80 cfs the Skyline Ditch and Chewuch Canal must reduce their diversion quantity. The Fulton Ditch is not subject to a reduction. Instream flow thresholds indicate a flow level that is stressful to aquatic life and likely results in mortalities. Based on the period of record, average flow in September at the Chewuch Winthrop gauge is 79 cfs. Over the 32 year period of record the mean monthly August and September flow was below target 11 years and 18 years, respectively. Minimum streamflow in August and September has never met the instream flow rule and often reaches flows below 25 cfs. Compared to the instream flow rule, Department of Ecology's Methow River Basin Fish Habitat Analysis (1992) found that the highest quality fish habitat in the Lower Chewuch occurs at a flow of 400 cfs for juvenile steelhead rearing, at 150 cfs for juvenile chinook rearing, and at 175 cfs for spawning bull trout. This project intends to increase instream flow throughout the irrigation season but will be particularly beneficial during the late summer, when irrigation withdrawals are depleting streamflow well below the target instream flow, by improving the efficiency of the Fulton Ditch system allowing less water to be diverted and providing that saved water to be dedicated to instream flow via the Trust Water Rights Program. Estimated water restored to instream flow through the alternatives proposed in this assessment range from 5 - 15 cfs or 6 - 19% of the target instream flow. Higher flow during the summer low flow periods will alleviate the compounding effects of low flow on the various life stages of chinook, steelhead and bull trout while also reducing thermal stressors and restoring riverine processes.

#3: What are the project goals? The goal of the project should be to solve identified problems by addressing the root causes. Then clearly state the desired future condition. Include which species and life stages will benefit from the outcome, and the time of year the benefits will be realized. **Example Goals and Objectives**

This project promotes chinook, steelhead and other cold water fish productivity and abundance by improving habitat conditions through instream flow restoration. Upon completion of this project streamflow in the Chewuch will be enhanced to meet or nearly meet target flow goals on normal water years and reduce low flow impacts during drought years. Water saved through system efficiency would restore and legally protect an estimated 5-15 cfs of water in the lower Chewuch and middle Methow that is currently diverted by the Fulton Ditch for irrigation. Fulton water in the 8 miles above the point of diversion is legally and permanently protected from future changes and left instream. This increased flow represents 6 - 19% and 2 - 6% of the September mean monthly discharge in the lower Chewuch and middle Methow, respectively. Water temperature and streamflow are inversely related. By restoring flow during irrigation season, summer water temperatures will be reduced providing holding and rearing habitat for adult and juvenile fish; and higher flows in the lower Chewuch and middle Methow will provide better adult fish passage and spawning areas. This project is a part of basin wide efforts to restore streamflow and cumulative efforts throughout the basin are necessary to achieve measurable flow goals in these larger systems. Further, 5-15 cfs in the Methow may not be measurable with current methods but could be the difference between a side channel or cold water remaining engaged.

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#4: What are the project objectives? Objectives support and refine biological goals, breaking them down into smaller steps. Objectives are specific, quantifiable actions the project will complete to achieve the stated goal. Each objective should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound). **Example Goals and Objectives**

To achieve instream flow restoration goals this project will modernize 4 miles of an open, gravity flow ditch system. Open ditches are inefficient, requiring more water to be diverted than is needed to convey water for the intended use. By modernizing the Fulton system, estimated water savings are between 5-15 cfs. This water would be legally and permanently protected as instream flow in the lower 8 miles of the Chewuch River, providing a senior priority date to fish and regulatory protection from future changes or reallocation of water. Below the Chewuch, flow gains will improve fish passage into the Chewuch basin and will alleviate high water temperature in the late summer when stream flows are depleted. This phase of the project will identify a preferred alternative and develop a preliminary design to modernize the system so specific water saving quantities can be identified and next design steps, permitting, and the Trust Water Right change process can begin.

#5: Scope of work and deliverables. Provide a detailed description of each project task/element. With each task/element, identify who will be responsible for each, what the deliverables will be, and the schedule for completion.

This phase of the project develops an alternatives assessment and preliminary design of a selected preferred alternative. The scope of work includes the following tasks:

Task 1. Trout Unlimited (TU) has presented a suite of alternatives to reduce diverted flow from the Chewuch River by the Fulton Ditch to the Fulton Ditch Board. TU will continue to work with the board to accomplish project objectives and timeline.

Task 2. TU shall gather data and information necessary to inform meaningful and accurate alternatives analysis.

Task 3. TU shall hire a third-party consultant who is professionally qualified as a professional engineer or equivalent technical expert to develop cost estimates, projected water savings and fatal flaws analysis of the following alternatives: 1) pipe the current earthen ditch and retain gravity headworks, 2) complete source switch, supplying water to shareholders via groundwater sources 3) develop an on-demand system that supplies pressurized water to users 4) a combination of ground water and on-demand system.

Task 4. TU shall coordinate with the Fulton Ditch board and other stakeholders to select a preferred alternative based on completed alternative assessment.

Task 5. TU shall hire a third-party consultant who is professionally qualified as a professional engineer to develop a preliminary design of a preferred alternative.

The following deliverables are associated with Phase I:

1. Alternative Assessment. A review of existing water conveyance and consumption and determination of viable efficiency strategies suited to the system; and projection of relative instream flow impacts from the suite of efficiency strategies; any fatal flaws associated with alternatives. Completed July 2024.

2. Cultural resources survey. A review of existing infrastructure and cultural resources along the ditch footprint. Completed July 2024.

3. Preliminary design of preferred alternative. The preliminary design of the selected alternative will provide enough detail to understand and quantify major project elements, result in design drawings, and provide enough information to qualify for permit applications. Completed January 2025.

Trout Unlimited is the responsible party for the scope and deliverables and will ensure that third party consultants have the necessary information to complete and inform project elements and ensure project objectives and deadlines are met.

Project Application Report - 23-1277

#6: What are the assumptions and physical constraints that could impact whether you achieve your objectives?

Assumptions and constraints are external conditions that are not under the direct control of the project, but directly impact the outcome of the project. These may include ecological and geomorphic factors, land use constraints, public acceptance of the project, delays, or other factors. How will you address these issues if they arise?

There are few constraints in achieving the objectives of this phase of the project. Historically there has been skepticism from the Fulton Ditch board to pursue an efficiency project, however we have worked closely with the board to realize the potential benefits of a host of alternatives and the board is eager to pursue efficiency alternatives that are beneficial to both water users and instream flow objectives. The board acknowledges that funding provided to improve their system benefits them and that reduced water diversion and saved water through completion of the project would be dedicated to instream flow via the states Trust Water Right Program. We are engaging early and often with ditch shareholders to keep them up to date on the project status.

#7: How have lessons learned from completed projects or monitoring studies informed this project?

Trout Unlimited has completed several irrigation efficiency projects in the region and learned many lessons along the way. Engaging early and often with stakeholders and the water entity is critical to success in these projects. In this phase we have worked closely with the Fulton Board to ensure they are aware of the goals and objectives we are pursuing and that those objectives align with the needs of the ditch and its shareholders.

#8: Describe the alternatives considered and why the preferred was chosen.

Other alternatives considered were a water rights purchase or do nothing. A purchase was not feasible because the ditch diverts the amount of water they need to fulfil their shareholders at the end of the ditch which ultimately results in large quantities of water being diverted to account for seepage and conveyance loss. Even if we were to strategically purchase shares from the ditch it would likely be very expensive and not result in a significant reduction of the diverted quantity of water as they would still need that quantity of water to convey adequate flow down the current ditch infrastructure to other shareholders. If we chose to do nothing the ditch would continue to operate their inefficient system and exercise their water right. Further, to do nothing would result in a lack of physical and legal protection of this water in the future. The water market and landscape is rapidly changing and without projects like these to legally and physically protect water instream, the Fulton Ditch could pursue various other pathways to improve their system and water we may have realized instream could be partitioned to other consumptive uses. Working with the ditch company to develop an efficient system in exchange for saved water is multi-beneficial for both the ditch company and aquatic resources. Completion of this project would ensure legal and physical protection of wet water instream indefinitely through the Trust Water Rights Program. Working collaboratively helps us develop alternatives that realize the maximum amount of water savings while still maintaining the agricultural practices that provide economic and cultural factors important to the community.

#9: How were stakeholders consulted in the development of this project? Identify the stakeholders, their concerns or feedback, and how those concerns were addressed.

We have worked and collaborated closely with the Fulton Ditch Board of Directors and ditch rider in development of this project. The board is open to assessing a suite of alternatives and have provided support for this funding proposal of phase I. The board expressed some concerns about losing the vegetation and trees that have grown along the open ditch but also acknowledged that many of these trees are major maintenance and safety concerns and determined that loss of this vegetation through an efficiency project was worth the reduction in maintenance and potential liability.

#10: Does your project address or accommodate the anticipated effects of climate change?

Yes

Project Application Report - 23-1277

#10a: How will your project be climate resilient given future conditions?

This project promotes resilience in a changing climate by buffering and improving habitat conditions by increasing streamflow at times where we anticipate lower stream flows as a result of climate change this will alleviate temperature stressors, which we also expect to increase and provide critical access to refuge habitat. Irrigation efficiency projects are inherently drought resilient because they develop a more reliable system for water users as they will require less water to meet their needs.

#10b: How will your project increase habitat and species adaptability?

Rivers are dynamic systems and functioning riverine processes allow for adaptability under changing conditions, including climate change. Restoring a portion of streamflow back to the Chewuch and Methow rivers will allow some restored function of riverine processes and increased ability to adapt. Increasing streamflow in these migratory corridors will allow fish species to access colder and less degraded habitat that is less susceptible to the effects of climate change.

#11: Describe the sponsor's experience managing this type of project. Describe other projects where the sponsor has successfully used a similar approach.

Trout Unlimited (TU) has completed many irrigation efficiency projects and has developed experience and expertise in water right changes associated with these types of projects. Staff at TU is well versed in collaborating with diverse stakeholders to develop ecologically- and multi- beneficial projects. In the Methow Valley, TU worked with the Methow Valley Irrigation District and Barkley ditch to explore several alternative that would increase the systems efficiency and dedicate saved water to instream flow. The project has resulted in permanent protection of saved water to instream flow in the Methow River and the on-demand system that was developed through alternative and design development reduces diverted water by more than just the saved water through efficiency by only delivering water when users need it.

#12: Will veterans (including the veterans conservation corps) be involved in the project? If yes, please describe.

No

Project Application Report - 23-1277

Planning Supplemental

#1: Is the project an assessment / inventory?
No

#2: Is your project a Barrier / Screening Diversion Inventory Project?
No

#3: Is this a fish passage design / screening design project?
No

#4: Will the project develop a design?
Yes

#4a: Will a licensed professional engineer design of the project?
Yes

#4b: Will you apply for permits as part of the project scope?

We will not apply for permits within this phase of the project. This phase seeks to develop a preliminary design to begin permit applications, phase II will include permitting.

Planning Metrics

Worksite: Fulton Ditch (#1)

Area Encompassed (acres) (B.0.b.1)	440.0
Miles of Stream and/or Shoreline Affected (B.0.b.2)	12.00

Note: 12 River miles

DESIGN FOR SALMON RESTORATION

Preliminary design (B.1.b.11.a RCO)

Total cost for Preliminary design	\$200,000
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Note: This includes alternative assessment costs

Project Identified in a Plan or Watershed Assessment. (1220) (B.1.b.11.a)

The Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan identifies implementing irrigation efficiency to reduce surface water withdrawal as a potential habitat action for several habitat action classes (Upper Columbia Salmon Recovery Board, 2007, Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan:
https://www.ucsr.org/mdocs-posts/00_upper-columbia-spring-chinook-salmon-and-steelhead-recovery-plan/).

Priority in Recovery Plan (1222) (B.1.b.11.b)

This project seeks to increase streamflow in the Lower Chewuch and Middle Methow assessment units. Enhancing instream flow is identified as a restoration action in both assessment units (pg. 215). The project targets priority species (spring chinook, steelhead and bull trout) that use both of these reaches identified in the UCSRB prioritization strategy (prioritization.ucsr.org/).

CULTURAL RESOURCES

Cultural resources

Total cost for Cultural resources	\$6,000
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Project Application Report - 23-1277

Acres surveyed for cultural resources

256.00

Note: Only the footprint of the current ditch will be surveyed for cultural resources. The ditch is approximately 4 miles long and the right of way is about 30 feet on either side. This acreage is a slight over estimation.

AGENCY INDIRECT COSTS

Agency Indirect

Total cost for Agency Indirect

\$31,417

Project Application Report - 23-1277

Overall Project Metrics

COMPLETION DATE

Projected date of completion

01/30/2025

Planning Cost Estimates

Worksite #1: Fulton Ditch

Category	Work Type	Estimated Cost	Note
Agency Indirect Costs	Agency Indirect	\$31,417	
Cultural Resources	Cultural resources	\$6,000	
Design for Salmon restoration	Preliminary design (B.1.b.11.a RCO)	\$200,000	This includes alternative assessment costs
	Subtotal:	\$237,417	
	Total Estimate For Worksite:	\$237,417	

Summary

Total Estimated Costs:	\$237,417
Total Estimated Planning Costs:	\$237,417

Cost Summary

	Estimated Cost	Project %	Admin/AA&E %
<u>Planning Costs</u>			
Planning	\$237,417		
SUBTOTAL	\$237,417	100.00 %	
Total Cost Estimate	\$237,417	100.00 %	

Funding Request and Match

FUNDING PROGRAM

Salmon State Projects	\$237,417	100.000000
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SPONSOR MATCH

Questions

#1: Explain how you determined the cost estimates

Cost estimates were determined based on recent costs for each deliverable item of similar projects in the region like the Icicle-Peshastin Creek assessment study and Tjossem Ditch project.

Cultural Resources

Cultural Resource Areas

Worksite #1: Fulton Ditch

Area: Bear Creek Crossing

Project Application Report - 23-1277

#1: Describe any planned ground disturbing pre-construction/restoration work. This includes geo-technical investigation, fencing, demolition, decommissioning roads, etc.

There will be no ground disturbance associated with this project.

#2: Describe the existing project area conditions. The description should include existing conditions, current and historic land uses and previous excavation/fill (if depths and extent is known, please describe).

This structure is a concrete weir constructed to convey Fulton ditch water over Bear Creek. Bear Creek is passed under the weir through a corrugated culvert. Surrounding land is primarily agricultural. The only known excavation in the area is from ditch construction.

#3: Will a federal permit be required to complete the scope of work on the project areas located within this worksite?
No

#4: Are you utilizing Federal Funding to complete the scope of work? This includes funds that are being shown as match or not.
No

#5: Do you have knowledge of any previous cultural resource review within the project boundaries during the past 10 years?
No

#6: Are there any structures over 45 years of age within this worksite? This includes structures such as buildings, tidegates, dikes, residential structures, bridges, rail grades, park infrastructure, etc.
Yes

#6a: List the structure(s) and the properties that are located within the project area. Identify which structures will be removed or altered as part of this proposal. Attach at least one photo of each structure. The photo must be labeled so that the structure may be geographically located within your project area.

The concrete weir is over 45 years old. It will not be altered or removed as part of this proposal.

Area: Fulton Ditch Siphon

#1: Describe any planned ground disturbing pre-construction/restoration work. This includes geo-technical investigation, fencing, demolition, decommissioning roads, etc.

There will be no ground disturbance associated with this project.

#2: Describe the existing project area conditions. The description should include existing conditions, current and historic land uses and previous excavation/fill (if depths and extent is known, please describe).

The siphon has been buried below the Chewuch for over 50 years, it is still used in ditch operation to convey ditch flows below the river. Landuse around the siphon is primarily residential. Excavation and fill would have been required to bury the siphon when it was installed by depth and extent is not known.

#3: Will a federal permit be required to complete the scope of work on the project areas located within this worksite?
No

#4: Are you utilizing Federal Funding to complete the scope of work? This includes funds that are being shown as match or not.
No

#5: Do you have knowledge of any previous cultural resource review within the project boundaries during the past 10 years?
No

#6: Are there any structures over 45 years of age within this worksite? This includes structures such as buildings, tidegates, dikes, residential structures, bridges, rail grades, park infrastructure, etc.
Yes

Project Application Report - 23-1277

#6a: List the structure(s) and the properties that are located within the project area. Identify which structures will be removed or altered as part of this proposal. Attach at least one photo of each structure. The photo must be labeled so that the structure may be geographically located within your project area.

The siphon is over 45 years old. The siphon is buried and not visible so a photo is not possible of the structure.

Project Permits

Permits and Reviews	Issuing Organization	Applied Date	Received Date	Expiration Date	Permit #
None - No permits Required					

Project Application Report - 23-1277

Attachments

Required Attachments

5 out of 5 done

- Cost Estimate
- Landowner acknowledgement form
- Map: Planning Area
- Photo
- RCO Fiscal Data Collection Sheet

- ✓
- ✓
- ✓
- ✓
- ✓

PHOTOS (JPG, GIF)

Photos (JPG, GIF)



559245 Primary # 559248 Secondary # 559246 # 559247 # 567853

PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

Project Application Report - 23-1277

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	11/01/2023	Agreement - State	23-1277 Agreement - Fulton Ditch Irrigation Efficiency Proj	DeenaR	23-1277 Agreement - Fulton Ditch Irrigation Efficiency Project Phase 1 - signed.pdf, 583918	✓
	10/06/2023	Map: Area of Potential Effect (APE)	Project APE Report (10/06/23 16:37:06)	MarkJ	Project APE Report - 23-1277 (10-06-2023_16-37-06).pdf, 581468	✓
	10/06/2023	Cultural Resource Screening Report	Project Cultural Resource Screening Report (10/06/23 16:37:0)	MarkJ	Project Cultural Resource Screening Report - 23-1277 (10-06-2023_16-37-05).pdf, 581467	✓
	10/06/2023	Project Application Report	Project Application Report, 23-1277P (sub 10/06/23 16:37:05)	MarkJ	Project Application Report - 23-1277 (submitted 10-06-2023_16-37-05).pdf, 581466	✓
	10/06/2023	Project Review Comments	Proj Review Comments Final, 23-1277P(compl 10/06/23 16:36)	MarkJ	Project Review Comments Report - 23-1277 (compl 10-06-2023_16-36-49).pdf, 581465	✓
	10/06/2023	Project Review Comments	Proj Review Comments LE, 23-1277P(compl 10/06/23 16:36)	MarkJ	Project Review Comments Report - 23-1277 (compl 10-06-2023_16-36-44).pdf, 581464	✓
	10/06/2023	Project Review Comments	Proj Review Comments Initial, 23-1277P(compl 10/06/23 16:36)	MarkJ	Project Review Comments Report - 23-1277 (compl 10-06-2023_16-36-40).pdf, 581463	✓
	07/17/2023	Application Review Report	Grant Manager Comments, 23-1277P(compl 07/17/23 13:16)	AmeebB	Grant Manager Comments Report - 23-1277 (compl 07-17-2023_13-16-16).pdf, 571362	✓
	06/26/2023	Project Application Report	Project Application Report, 23-1277P (sub 06/26/23 11:56:55)	AllisonP	Project Application Report - 23-1277 (submitted 06-26-2023_11-56-55).pdf, 567857	✓
	06/26/2023	Photo	Lining.jpg	AllisonP	Lining.jpg, 567854	✓
	06/26/2023	Photo	IMG_4367.jpg	AllisonP	IMG_4367.jpg, 567853	✓
	06/26/2023	Design document	Fulton Ditch - Analysis of Additional Flow Rates - FINAL DEL	AllisonP	Fulton Ditch - Analysis of Additional Flow Rates - FINAL DELIVERABLES 7-13-11.pdf, 567851	✓
	05/23/2023	Application Review Report	Grant Manager Comments, 23-1277P(rtnd 05/23/23 15:57)	AmeebB	Grant Manager Comments Report - 23-1277 (rtnd 05-23-2023_15-57-53).pdf, 563647	✓
	05/19/2023	Visuals	JotCoverSheet Fulton Ditch Irrigation Efficiency Project.pdf	AllisonP	JotCoverSheet Fulton Ditch Irrigation Efficiency Project.pdf, 563452	✓
	05/19/2023	Application Document	FultonSRFBJotform.pdf	AllisonP	FultonSRFBJot.pdf, 563450	✓
	05/19/2023	Map: Planning Area	FultonParcelsServed.pdf	AllisonP	ParcelsServed.pdf, 563447	✓
	04/24/2023	Letters of Support	FultonLOS_OCD_TU.pdf	AllisonP	FultonLOS_OCD_TU.pdf, 559353	✓
	04/24/2023	Project Application Report	Project Application Report, 23-1277P (sub 04/24/23 07:09:34)	AmeebB	Project Application Report - 23-1277 (submitted 04-24-2023_07-09-34).pdf, 559337	✓
	04/21/2023	Letters of Support	TU_Fulton_LOS_4_2023_MVCC.pdf	AllisonP	TU_Fulton_LOS_4_2023_MVCC.pdf, 559250	✓
	04/21/2023	Letters of Support	FultonCoLOS.pdf	AllisonP	FultonCoLOS.pdf, 559249	✓
	04/21/2023	Photo	FultonFishScreen.jpg	AllisonP	FultonFishScreen.jpg, 559248	✓
	04/21/2023	Photo	FultonHeadgate2.jpg	AllisonP	FultonHeadgate2.jpg, 559247	✓
	04/21/2023	Photo	FultonEastsideRd.jpg	AllisonP	FultonEastsideRd.jpg, 559246	✓
	04/21/2023	Photo	FultonBearCreek.jpg	AllisonP	FultonBearCreek.jpg, 559245	✓
	04/21/2023	RCO Fiscal Data Collection Sheet	FiscalDataCollectionSheet_2023_fulton.pd	AllisonP	FiscalDataCollectionSheet_2023_fulto... 559244	✓
	04/21/2023	Map: Planning Area	FultonGenMap.pdf	AllisonP	FultonGenMap.pdf, 559243	✓
	04/21/2023	Landowner acknowledgement form	FultonCoLandownerAgreementForm.pdf	AllisonP	FultonCoLandownerAgreementForm.pdf, 559242	✓
	04/21/2023	Cost Estimate	SAL-CostEstimate_Fulton23.xlsx	AllisonP	SAL-CostEstimate_Fulton23.xlsx, 559241	✓
	04/21/2023	Applicant Resolution/Authorizations	App Auth Resolution signed TU 4.2023 Fulton.pdf	AllisonP	App Auth Resolution signed TU 4.2023 Fulton.pdf, 559239	✓

Project Application Report - 23-1277

Application Status

Application Due Date: null

Status Name	Status Date	Submitted By	Submission Notes
Application Complete	07/17/2023	Amee Bahr	Thanks for addressing the comments. Your project is clear for funding in September. Please let me know if you have any further questions.
Application Resubmitted	06/26/2023	Allison Pardis	
Application Returned	05/23/2023	Amee Bahr	Thanks for submitting the application. It looks like we need a little more information. Please look over the Review Panel and Grant Manager comments and provide responses. Please resubmit the application when you finish. Let me know if you have any questions.
Application Submitted	04/24/2023	Amee Bahr	Submitted by OGM. Application was complete 4/21/23. Needed to mark the "no match" required by OGM.
Preapplication	04/06/2023		

I certify that to the best of my knowledge, the information in this application is true and correct. Further, all application requirements due on the application due date have been fully completed to the best of my ability. I understand that if this application is found to be incomplete, it will be rejected by RCO. I understand that I may be required to submit additional documents before evaluation or approval of this project and I agree to provide them. (Allison Pardis, 06/26/2023)

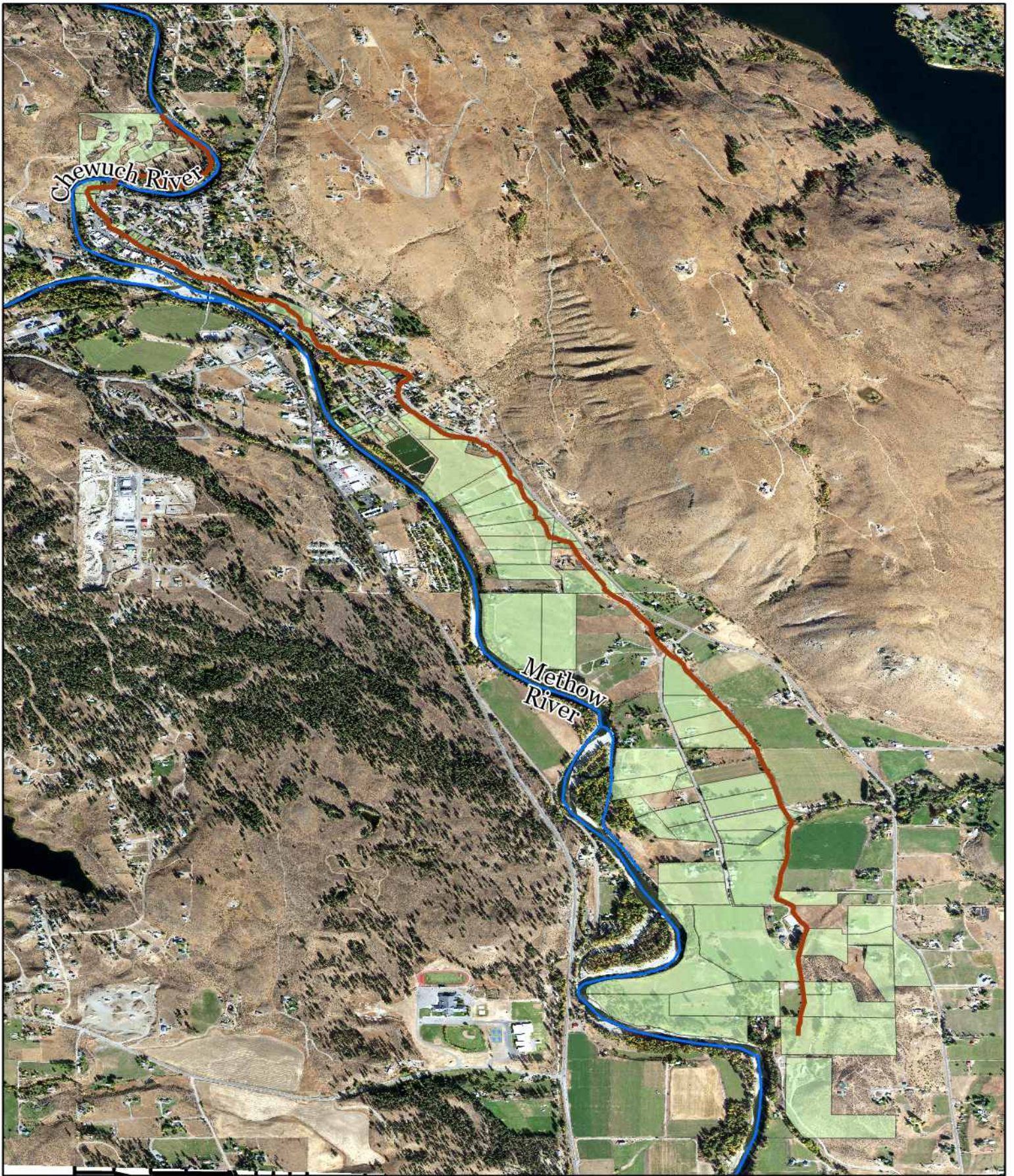
Date of last change: 03/18/2024

CUMULATIVE TOTALS

This sheet contains automatic calculations

Project Name	Fulton Ditch Irrigation Efficiency Project Phase I
SRFB #	23-1277
Sponsor	Trout Unlimited

	OVERALL PROJECT Cost	GRANT REQUEST Amount	PRISM MATCH Amount	MATCH NOT IN PRISM Amount	Budget Check
<u>Sheet #1 Acquisition</u>					
Property Costs	\$ -	\$ -	\$ -	\$ -	0
Incidental Costs	\$ -	\$ -	\$ -	\$ -	0
Administrative Costs	\$ -	\$ -	\$ -	\$ -	0
Indirect Costs	\$ -	\$ -	\$ -	\$ -	
STotal	\$ -	\$ -	\$ -	\$ -	0
<u>Sheet #2 Design</u>					
Design Costs	\$ 227,000	\$ 200,000	\$ -	\$ -	
Indirect Costs	\$ 31,417	\$ 31,417	\$ -	\$ -	
STotal	\$ 258,417	\$ 231,417	\$ -	\$ -	27,000
<u>Sheet #3 Restoration</u>					
Construction Costs	\$ -	\$ -	\$ -	\$ -	0
AA&E	\$ -	\$ -	\$ -	\$ -	0
Indirect Costs	\$ -	\$ -	\$ -	\$ -	
STotal	\$ -	\$ -	\$ -	\$ -	0
Totals	\$ 258,417	\$ 231,417	\$ -	\$ -	27,000



0 1.88 3.75 7.5 11.25 15 Miles



-  **Fulton Ditch**
-  **Fulton Shareholders**



Trout Unlimited Inc., Fulton Ditch Irrigation Efficiency Project Phase 1 (#23-1277)

Attachment #559245, FultonBearCreek.jpg



Trout Unlimited Inc.; Fulton Ditch Irrigation Efficiency Project Phase 1 (#23-1277)

Attachment #559246, FultonEastsideRd.jpg



Trout Unlimited Inc.; Fulton Ditch Irrigation Efficiency Project Phase 1 (#23-1277)

Attachment #559247, FultonHeadgate2.jpg



Trout Unlimited Inc.; Fulton Ditch Irrigation Efficiency Project Phase 1 (#23-1277)

Attachment #559248, FultonFishScreen.jpg

April 10, 2023

Dear Salmon Recovery Funding Board:

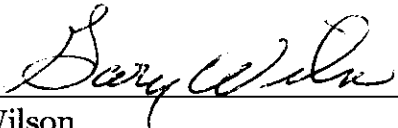
The Fulton Ditch Company Board is pleased to support Trout Unlimited's (TU) application for funds under the 2023 Salmon Recovery Funding Board grant round to develop efficiency alternatives on the ditch infrastructure and move a preferred alternative to preliminary design. This project is a multi-beneficial project with ecological and economic benefits that supports fish and farms alike.

This phase of the project is a critical step in developing a more efficient and reliable water supply system. Completion of this project will help address aging infrastructure issues on the ditch, improving water efficiency and supporting drought resilience, while allowing saved water to be dedicated to instream flow, benefitting fish and river processes in the Chewuch and Methow Rivers.

The Fulton Ditch has assisted TU in development of this proposal through record sharing and alternatives development and will continue to collaborate and provide support through this phase and subsequent phases of the project. This project provides meaningful community and ecosystem benefits through water efficiency and infrastructure improvement.

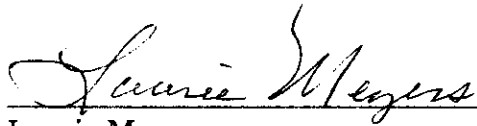
The Fulton Ditch supports the Salmon Recovery Funding Board funding this project.

Sincerely,



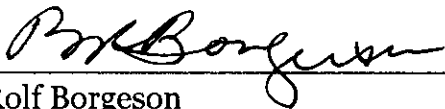
Gary Wilson
Board President

4-15-23



Laurie Meyers
Officer

4-15-23



Rolf Borgeson
Officer

4-15-2023

Fulton Ditch Company
PO Box 253
Winthrop, Washington 98862



Okanogan Conservation District

1251 S. Second Ave, Room 102

Okanogan, WA 98840

April 10, 2023

Dear Salmon Recovery Funding Board,

The Okanogan Conservation District (OCD) is pleased to support Trout Unlimited's (TU) proposal for funds under the 2023 Salmon Recovery Board grant round. This project is an important step in improving drought resilience and restoring instream flow in the Methow subbasin.

This phase of the project will develop a suite of ecologically beneficial alternatives and produce a preliminary design of the preferred alternative that will benefit both the agricultural practices tied to this ditch and the river systems effected by diversion. The Conservation District is a strong supporter of irrigation efficiency projects and has supported this project through consultation, planning, and alternative development.

Thank you for the opportunity to support the Salmon Recovery Board funding this project.

Sincerely,

Jordana Ellis
Irrigation Planner
Okanogan Conservation District
jordana@okanogancd.org
509.429.3468

Methow Valley Citizens Council



Board of Directors

Tom Jones
Chair

John Sirois
Vice Chair

Julie Palm
Secretary

Peter Bauer
Treasurer

Leki Albright
Easton Branam
Maggie Coon
Hillary Ketcham
Melanie Rowland
Alexa Whipple

PO Box 774
Twisp, WA 98856
www.mvcitizens.org
509 997-0888

Upper Columbia Salmon Recovery Board
123 Easy Street
Wenatchee, WA 98801

April 20, 2023

Dear Salmon Recovery Funding Board,

The Methow Valley Citizens Council (MVCC) is pleased to support Trout Unlimited's (TU) proposal for funds under the 2023 Salmon Recovery Board grant round. The Fulton Ditch project represents an important step toward improving drought resilience and restoring instream flows in the Methow basin.

As we understand it, this phase of the project will develop a suite of ecologically beneficial alternatives and produce a preliminary design of the preferred alternative that will benefit both the agricultural practices tied to this ditch and the river systems affected by diversion.

Healthy aquatic systems and conservation-driven agricultural practices are critically important values supported by the Methow community. This project will work in collaboration with local farmers and the Fulton Ditch Company to support fish and farms alike, improving aquatic conditions for fish and developing a more reliable and efficient water delivery system.

MVCC supports the Salmon Recovery Board funding this project.

Sincerely,

Lorah Super
Program Director
Methow Valley Citizens Council