

Beaver Creek Barrier Correction Implementation

Chelan County Natural Resource Department

Bryan Maloney

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411 Washington St, Suite 201, Wenatchee, WA, 98801

PRISM # 23-1284

Anticipated SRFB Request: \$36,121

Anticipated Trib Comm Request: \$0

Other Match: \$438,745

Anticipated TOTAL Project Budget: \$474,866



May 18

Friday, ~~March 10~~, 2023

2023 Regional Project Pre-application

2023 Upper Columbia Regional Project Pre-Application

- * Pre-applications due March 10, 2023 (COB)
- * Complete applications due in PRISM April 20, 2023 (COB)
- * Revised proposals due in PRISM May 19, 2023 (COB)
- * Final revised applications due in PRISM June 26, 2023 (noon)

Project Title

Beaver Creek Barrier Correction Implementation

Contact Information

Sponsor

Chelan County Natural Resources Department

Primary Contact

Bryan Maloney

E-Mail Address

bryan.maloney@co.chelan.wa.us

Budget Request

Anticipated Request - SRFB (standard round)

~~\$300,000~~ \$36,121

Anticipated Other Funding

~~200,000~~ \$438,745

Anticipated TOTAL Budget

\$500,000 \$474,866

Other Funding Source(s)

Fish Barrier Removal Board

Project Location

Briefly describe the location of the project

This restoration project will remove and replace one (1) culvert that is a barrier to fish passage at RM 0.5 on Beaver Creek. This culvert is a 67% velocity barrier and is the lowest fish passage barrier on Beaver Creek. The project site is located on a private drive for Mountain Springs Lodge, 19115 Chiwawa

Loop Road, approximately 0.2 miles north of Plain, WA (47.766919723, -120.65282193).

Latitude (decimal degrees)

47.766947

Longitude (decimal degrees)

120.652839

Project subbasin

Wenatchee

Wenatchee Assessment Unit(s)

Wenatchee River-Beaver Creek

Reach(es) Name

Beaver Creek 01

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/>.

Unranked (not a priority or missing data)

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 the 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 actions proposed] to create an estimated [include specific target metrics, as described below] upon implementation in [estimated year].

The major objective of this project is to immediately allow unimpeded accessibility to over 1.6 RM's of high-quality habitat for ESA-listed salmonids of all life stages by removing one (1) corrugated-steel culvert and replacing it with a fish passable structure. Once all funds for this project have been secured, the 90% designs will be advanced to 100% construction-ready designs within 1 year of project start. The project will be constructed within the in-water work period for Beaver Creek within 1-2 years of project start. This project is part of a suite of proposals for fish passage work in Beaver Creek that will restore passage to the entire 2.7 miles of high quality habitat for ESA species within the next 5 years

2. What species will the project benefit?

Spring Chinook

Steelhead

Bull Trout

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

Fish Passage

Riparian Habitat

Fish Passage: Reporting Code

Miles of stream made accessible

Number of fish passage blockages / impediments / barriers impeding passage

Riparian Habitat: Reporting Code

Total riparian acres treated

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

Yes

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

Yes

Please explain which process(es) and how this proposal differs from the previous submission (e.g., different phase, modified scope, etc.)

This project was previously submitted to the SRFB process under application number 20-1458, but that application was later removed from consideration for funding. A separate application was filed and awarded funding for the design process through FBRB under application number 20-1836. This application is the continuation of the design development process and asking for implementation funding for barrier removal and correction.

6. What category is the project?

Restoration

Design and Restoration Proposals

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

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)?

Wenatchee Sub-basin Plan (NPCC 2004) and Upper Columbia Salmon Recovery Plan (UCSRB 2007)

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

Fish Passage Barriers

10. Which life stages will the proposed project address?

Adult Migration

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?

Beaver Creek provides important rearing and spawning habitat for Upper Columbia steelhead and spring Chinook. Beaver Creek was recently ranked as the #1 priority sub-watershed within the FBRB Priority HUC 10 Watershed for the Upper Columbia Region’s fish passage barrier priorities. The priority watershed was identified by the Regional Technical Team based on considerations of providing improved access to high quality habitat, fish utilization, and contribution towards meeting recovery goals for ESA-listed salmonid populations. WDFW spawning surveys conducted in 2011 – 2013 found steelhead spawning redds in the lower 1 mile of Beaver Creek. Additionally, there is 5 miles of intrinsic potential for steelhead in total in Beaver Creek, of which the lower 2.7 miles is considered high quality habitat (2017 Steelhead Intrinsic Potential layer).

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

The proposed project will replace the lowest barrier on Beaver Creek, immediately providing continuous access to over 1.6 RM of upstream habitat. This project is expected to increase distribution and abundance of target species. Restoring fish passage increases availability of habitats and can result in large increases in potential fish production (Roni et al., 2002; Hillman et al. 2016). The existing structure impedes access to nearly three miles of high-quality, low-gradient stream habitats and approximately six miles of stream habitats with intrinsic potential for steelhead and/or bull trout. Beaver Creek is important rearing and spawning habitat for Upper Columbia steelhead and spring Chinook. Improving fish passage to lower Beaver Creek provides fish a temperature refugia from summer high temperatures in the mainstem Wenatchee. Adult spring Chinook return to the Wenatchee in the spring before the late summer spawning season. Adults hold in the tributaries for several months during the summer before spawning in rivers and streams from August to September. Additionally, juvenile spring Chinook and steelhead rely upon cooler tributary temperatures for over-summering rearing habitat. Temperatures in Beaver Creek are an average of 3.72°C cooler than the average August temperatures of 16.87 °C in the mainstem Wenatchee.

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

1-10 years

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

50+ years

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

Post implementation of the barrier removal and replacement, maintenance is expected to be low.

Results of this project will allow the stream to function in its natural manner. Highest level of maintenance anticipated with this project will be post-construction riparian vegetation monitoring and maintenance. CCNRD staff are highly versed in vegetation survival monitoring and re-planting when required.

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

This project will accomplish the following tasks needed to remove the lowest anthropogenic barrier in Beaver Creek (RM 0.5) and replace it with a completely passable structure. Tasks and specific task activities include but, are not limited to: Task 1) Project Administration: project management, financial management, invoicing and reporting, permit compliance, landowner coordination and contract preparation, development and execution, project close-out. Task 2) Construction: mobilization, demobilization, implementation removal of the culvert and installation of preferred alternative for a new structure, environmental compliance, site restoration and construction inspection. Task 3) Travel: to cover miles traveled to and from the project site by CCNRD employees. CCNRD will be responsible for ensuring that all grant deliverables and objectives are met on time and within budget. Any task as outlined above, that cannot be completed directly by CCNRD staff, will be responsibly contracted following the contracting and procurement policies under RCW 130.04.010. Specific tasks within the scope of work anticipated to be contracted out include implementation of construction activities.

Assessment Proposals

Protection Proposals

Monitoring Proposals

Project Risk and Economic Benefits

1. What is the landownership?

private: Mountain Springs Lodge

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

Yes

Please explain

CCNRD has been working closely with the property owner throughout the design phases of this project. CCNRD currently holds a Landowner Acknowledgement form signed by the landowner.

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

The property owner will need to minimize impacts to their business operations during construction. As such, project specs are consistent with landowner needs for staging areas and hours of construction. CCNRD has completed numerous similar barrier replacement projects and is proficient at working through any changes that could have an adverse impact on the achievement of the overall objective.

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

No

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

CCNRD will see this project through construction and project close-out, at which point the responsibility for any long-term maintenance obligations will transfer to the property owners and those that have legal shared easement of the crossing. Landowners will be required to not alter the structure for a minimum of ten years. CCNRD will maintain project plantings and invasive species management post-project.

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

Yes

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

Overall risk of failure of this project is low. CCNRD staff have successfully managed over 35 projects similar to this project including implementation and monitoring throughout the greater Wenatchee Watershed. CCNRD has highly qualified staff and personnel to successfully complete this project.

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

CCNRD has completed outreach to other landowners within the Beaver Creek drainage. This project is one within a suite of ongoing projects in the Beaver Creek valley. CCNRD has actively been working with landowners and the larger upper Wenatchee Watershed over numerous years to identify and implement projects. Successful completion of this project will build on years of good faith and trust between the community and CCNRD to enact its mission of habitat restoration and salmon recovery.

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

This project provides an opportunity for economic benefit to the local community. This implementation project will serve as an opportunity for local contractors to bid on and secure the project. This will provide for financial and economic benefit to local residents.

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

Design funding was provided by the Fish Barrier Removal Board and the Tributary Fund. A portion of implementation funding is provided by the Fish Barrier Removal Board.

Optional Section - Preparation for PRISM

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

No

Supporting Documents

[Upper Columbia Process Guide 2022](#) (updates anticipated January 2023)

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

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

Does the proposed project span multiple assessment units?

No

PROJECT: 23-1284 REST, BEAVER CREEK BARRIER CORRECTION IMPLEMENTATION

Sponsor: Chelan Co Natural Resource Program: Salmon State Projects Status: Board Alternate

Parties to the Agreement

PRIMARY SPONSOR

Chelan County Natural Resources Department

Address 411 Washington St Ste 201

City Wenatchee **State** WA **Zip** 98801

Org Type County-Open Space/Nat Resources

Vendor # SWV0001231-12

UBI

Date Org created

Org Notes

[link to Organization profile](#)

Org data updated

SECONDARY SPONSORS

No records to display

MANAGING AGENCY

Recreation and Conservation Office

LEAD ENTITY

Upper Columbia Salmon Rcy Bd L

QUESTIONS

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

External Systems

SPONSOR ASSIGNED INFO

Sponsor-Assigned Project Number

Sponsor-Assigned Regions

EXTERNAL SYSTEM REFERENCE

Source	Project Number	Submitter
HWS	23-1284	DHecker

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Project Contacts

Contact Name Primary Org	Project Role	Work Phone	Work Email
<u>Amee Bahr</u> Rec. and Conserv. Office	Project Manager	(360) 867-8585	Amee.Bahr@rco.wa.gov
<u>Doran Lower</u> Rec. and Conserv. Office	MAgy Fiscal Contact	(360) 902-3007	doran.lower@rco.wa.gov
<u>Bryan Maloney</u> Chelan Co Natural Resource	Project Contact	(509) 670-1772	bryan.maloney@co.chelan.wa.us
<u>David Hecker</u>	Lead Entity Contact	(208) 869-9446	dave.hecker@ucsr.org
<u>Sofia Bjorklund</u> Chelan Co Natural Resource	Billing	(509) 667-6324	sofia.bjorklund@co.chelan.wa.us

Worksites & Properties

Worksite Name

#1 Barrier 040016

Restoration	Property Name
✓	Mountain Springs Lodge

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Worksite Map & Description

Worksite #1: Barrier 040016

WORKSITE ADDRESS

Street Address 19115 Chiwawa Loop Road
City, State, Zip Leavenworth WA 98826

Worksite Details

Worksite #1: Barrier 040016

SITE ACCESS DIRECTIONS

Driving North through Plain, continue straight on Chiwawa Loop Road from Chumstick Highway. Mountain Springs Lodge will be approximately 0.2 miles up on the right-hand side.

TARGETED ESU SPECIES

Species by ESU	Egg Present	Juvenile Present	Adult Present	Population Trend
Steelhead-Upper Columbia River, Wenatchee River, Threatened	✓	✓	✓	
Chinook-Upper Columbia River Spring, Wenatchee River, Endangered	✓	✓	✓	

Reference or source used

Washington Department of Fish and Wildlife. 2017. Steelhead spawning redd locations. GIS Shapefiles maintained by Jeremy Cram/WDFW. Accessed at: <https://www.arcgis.com/home/webmap/viewer.html?webmap=ebc500a47a65475cb75c03d1fba27747&extent=-123.2503,46.8801,-115.9444,49.0804> Also available from UCSRB at: <https://ucsrp.maps.arcgis.com/apps/webappviewer/index.html?id=2a2210bd3720487385d54950f2331128> Beaver Creek contains intrinsic potential habitat for steelhead: <https://www.arcgis.com/home/webmap/viewer.html?webmap=ebc500a47a65475cb75c03d1fba27747&extent=-123.2503,46.8801,-115.9444,49.0804> Upper Columbia Salmon Recovery Board. 2007. Upper Columbia Salmon Recovery Plan.

TARGETED NON-ESU SPECIES

Species by Non-ESU	Notes
Bull Trout	Bull trout intrinsic potential habitat exists upstream in Beaver Creek watershed: https://www.arcgis.com/home/webmap/viewer.html?webmap=ebc500a47a65475cb75c03d1fba27747&extent=-123.2503,46.8801,-115.9444,49.0804

Questions

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

19115 Chiwawa Loop Road, Leavenworth WA, 98826.
Approximately 0.2 miles north of Chumstick Highway.

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Project Location

RELATED PROJECTS

Projects in PRISM

PRISM Number	Project Name	Program Name	Current Status	Relationship Type	Notes
20-1836 R	Beaver Creek Barrier Correction 040016	BA Fish Barrier Removal Board	Active	Matching Grant	FBRB funded this project for full designs and construction. With this SRFB proposal, we are requesting the minor matching funds needed to complete the project.

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 near river-mile (RM) 0.5 on Beaver Creek, which is a tributary of the Wenatchee River at RM 46.2, a few miles below the Chiwawa River confluence. The Beaver Creek drainage is 6,310 acres in size, situated within the Wenatchee River- Beaver Creek HUC-12 watershed (170200110701). This HUC-12 watershed is ranked as the number 2 priority assessment unit (within the updated RTT Prioritization of Assessment Units) for restoration actions aimed at improving conditions for Endangered spring Chinook salmon and threatened summer steelhead trout.

#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 is a critical component in a suite of work being performed to provide unimpeded access to habitat in Beaver Creek. It will address the lowest anthropogenic barrier within the Beaver Creek drainage and complement efforts to provide unimpeded access to high quality habitat by fish of all life stages. According to the revised Upper Columbia Biological Strategy Prioritization (RTT 2019), the Beaver Creek HUC 10 Assessment Unit is considered the # 2 priority for spring Chinook and steelhead recovery for the entire Wenatchee Watershed (Upper Columbia RTT 2019). The Wenatchee Subbasin Plan recommends replacing all culverts that block fish passage in Beaver Creek (Northwest Power and Conservation Council, 2004 - page 268). The Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan recommends addressing passage barriers throughout the entire Wenatchee watershed (Upper Columbia Salmon Recovery Board, 2007 - page 205). This project is part of a suite of proposals for fish passage work in Beaver Creek that will restore passage to the entire 2.7 miles of high quality habitat for ESA species.

#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 project is part of a suite of efforts for fish passage work in Beaver Creek that will restore passage to the entire 2.7 miles of high quality habitat for ESA species.

#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: Mountain Springs Lodge (Worksite #1: Barrier 040016)

✓Restoration

LANDOWNER

Name Newell Family LLC
Address 19115 Chiwawa Loop Road
City Leavenworth
State WA Zip 98826
Type State

CONTROL & TENURE

Instrument Type Landowner Agreement
Timing Proposed
Term Length Fixed # of years
Yrs 10
Expiration Date 10/30/2034
Note

Project Proposal

Project Description

This restoration project will remove and replace one (1) culvert that is a barrier to fish passage at RM 0.5 on Beaver Creek. This culvert is a 67% velocity barrier and is the lowest fish passage barrier on Beaver Creek. The project site is located on a private drive for Mountain Springs Lodge, 19115 Chiwawa Loop Road, approximately 0.2 miles north of Plain, WA (47.766919723, -120.65282193). It has been ranked as the # 1 barrier for removal within the designated priority watershed for the Upper Columbia region. Beaver Creek is important rearing and spawning habitat for Upper Columbia steelhead and spring Chinook and is ranked as the #2 priority sub-basin for restoration actions within the Wenatchee watershed. This proposal includes bid preparation and construction required to remove and replace the current 67% culvert barrier. Replacement of this barrier will immediately provide unimpeded access to over 1.6 miles of quality, instream habitat for all fish species at all life stages. This is the downstream-most anthropogenic barrier in Beaver Creek, and all other known barriers within the documented range of fish distribution upstream have been removed or have active projects to remove them. As a result, this project is a critical component in a suite of work being performed to provide unimpeded access to all available habitats in Beaver Creek.

Project Questions

#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.

This project seeks to address the highest priority barrier within the Wenatchee-Beaver Creek HUC-12 watershed. This project is located in Beaver Creek, which is within the designated priority watershed for the Upper Columbia region (FBRB manual 22, Appendix A, Page 33). This barrier is ranked as the # 1 barrier for removal within the designated priority watershed (RTT 2020 prioritization).

This project seeks to address habitat accessibility, quantity, and quality for ESA-listed salmonids within Beaver Creek, as part of an ongoing effort to increase spatial structure, abundance, and productivity of ESA-listed salmonids within the Wenatchee Watershed. This project will address the lowest anthropogenic barrier to fish passage within Beaver Creek, a 67% passable velocity barrier. Beaver Creek supports good-quality habitats for Chinook, steelhead, and bull trout. The Beaver Creek watershed contains approximately 6.2 miles of intrinsic potential habitat for steelhead and/or bull trout. Additionally, roughly half of the intrinsic potential habitat (~three stream miles) is identified as high-quality habitat for steelhead. Steelhead spawning has been documented within lower Beaver Creek and Chinook redds have been documented in the mainstem Wenatchee River in close proximity upstream and downstream of the Beaver Creek confluence. Further, coho salmon, Chinook salmon, and steelhead have all been detected at PIT-tag arrays in lower Beaver Creek.

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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 directly addresses limitations on accessibility to high-quality habitat for ESA-listed salmonids within Beaver Creek. The proposed project will replace the lowest barrier on Beaver Creek, immediately providing continuous access to over 1.6 RM of upstream habitat. This project is expected to increase distribution and abundance of target species. Restoring fish passage increases availability of habitats and can result in large increases in potential fish production (Roni et al., 2002; Hillman et al. 2016). The existing culvert structure impedes access to nearly three miles of high-quality, low-gradient stream habitats and approximately six miles of stream habitats with intrinsic potential for steelhead and/or bull trout. Beaver Creek is important rearing and spawning habitat for Upper Columbia steelhead and spring Chinook. Further, improving fish passage to lower Beaver Creek provides fish a temperature refugia from summer high temperatures in the mainstem Wenatchee. Adult spring Chinook return to the Wenatchee in the spring before the late summer spawning season. Adults hold in the tributaries for several months during the summer before spawning in rivers and streams from August to September. Additionally, juvenile spring Chinook and steelhead rely upon cooler tributary temperatures for over-summering rearing habitat. Temperatures in Beaver Creek are an average of 3.72°C cooler than the average August temperatures of 16.87 °C in the main-stem Wenatchee.

#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**

The project goals are to restore fish passage in Beaver Creek for all species, life stages, and streamflows. The desired future condition is full fish passage through the project reach. Intended species to benefit are juvenile and adult steelhead, Chinook salmon, and coho salmon. The project will have benefits immediately following implementation, with the greatest benefit to fish during October-June.

#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**

The project objectives are to replace the lowest fish passage barrier in Beaver Creek. Removal of the existing barrier culvert and replacement with an appropriately sized three-sided crossing will restore full fish passage up to river mile 2.1 of Beaver Creek. Project implementation is anticipated in 2024.

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#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.

The scope of work includes project management, utility relocation, construction, and revegetation.

Project management will be ongoing through the entire project. CCNRD staff will be responsible for project management tasks, including construction contracting, project accounting, coordination with stakeholders (landowners, funding agencies, and permitting agencies), and permit compliance.

Utility relocation will be completed by Chelan County PUD. This will occur before other construction activities. Utilities will be temporarily relocated so they do not interfere with construction activities. Following project construction, utilities will be relocated to their permanent locations.

The construction contract will include site preparation, excavation, structure installation, and site rehabilitation. A contractor will be responsible for all activities in this construction contract. Site preparation includes erecting a high-visibility fence, cutting pavement, and isolating and dewatering the construction area. Excavation will include removal of the existing culvert and all associated road fill. Installation of the structure will involve creation of a rock ballast for support, installation of spread footings, installation of the new three-sided crossing structure, placement of streambed material, and regrading the driveways. Site rehabilitation includes dispersing floodplain seed mix and straw throughout disturbed areas. The contractor will also install biodegradable erosion control measures on exposed streambanks.

Revegetation will be completed by CCNRD staff. Exposed streambanks will be planted with potted plants adapted to local growing conditions.

#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 only a few assumptions and physical constraints that could impact whether we achieve our objectives. For instance, we completed a geotechnical assessment at the culvert location, which confirmed the feasibility of construction. Results of the geotechnical assessment demonstrate that soil conditions on site are conducive to excavation and installation of a new crossing structure. Another assumption is landowner acceptance. As we've coordinated with the landowner throughout the design process, landowner acceptance should not be an issue during implementation. Our construction schedule accommodates business operations at Mountain Springs Lodge.

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

CCNRD has completed over 35 similar barrier replacement projects within the Wenatchee Watershed, 3 of which were located upstream on Beaver Creek. Lessons learned from these other projects illustrates that CCNRD has the qualified staff necessary to successfully complete this project. Through all previous barrier correction projects, CCNRD has refined the approach to contracting, implementation, construction oversight, site rehabilitation, landowner coordination, permit compliance, etc.

The importance of this project is reinforced by data. The Beaver Creek watershed contains approximately 6.2 miles of intrinsic potential habitat for steelhead and/or bull trout. Steelhead spawning has been documented within lower Beaver Creek and Chinook redds have been documented nearby in the mainstem Wenatchee River both upstream and downstream of the Beaver Creek confluence. Further, coho salmon, Chinook salmon, and steelhead have all been detected at PIT-tag arrays in lower Beaver Creek. A review of stream habitat enhancement projects documents that barrier removals register quick habitat improvement responses and provide significant long and short term improvements to the overall quality of habitat and instream conditions (Hillman, T., P. Roni, and J.O'Neal. 2016). Removal of these barriers is crucial to the reestablishment of natural stream channel processes and improvement of the presence and abundance of salmonids within the watershed.

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

The barrier correction analysis included alternatives for a precast modular concrete bridge, precast concrete split box culvert, and bottomless aluminum box culvert. The precast concrete split box culvert was not selected due to elevated cost and the required increase to driveway elevation. The bottomless aluminum box culvert was not selected due to increased driveway elevations. The precast modular concrete bridge was the selected alternative due to cost and least amount of driveway elevation raising.

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

Stakeholders were consulted throughout the design process for this project. The landowners have been consulted at the conceptual, preliminary, and final design stages. WDFW staff were consulted at the conceptual, preliminary, and final design stages. Additionally, CCNRD staff visited the project sites with WDFW staff to measure bankfull channel width during the conceptual design stage. Chelan County Public Works Department was consulted at the preliminary and final design stages. Concerns from stakeholders were incorporated into project designs, including the desire for shorter construction work hours on Fridays, as well as smaller streambed sediment.

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

Yes

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

The project addresses the anticipated effects of climate change by replacing a fish passage barrier. The replacement structure will be sized appropriately to accommodate future conditions and open blocked habitat. Climate change is projected to impact hydrology in Chelan County through increased 100-year streamflows and decreased baseflows (Hamlet et al., 2013). The barrier replacement structure will accommodate 100-year streamflows to maintain structural integrity and stream functioning through time.

Beaver Creek currently provides thermal refuge and will also provide climate refuge in the future. Based on NorWeST modeling, summer water temperatures in Beaver Creek are ~8-14°C, which is a nearly 4°C cooler than temperatures in the upper Wenatchee River. Further, NorWeST modeling predicts that 2080 cold water conditions are expected to persist in Beaver Creek as the temperature differential between Beaver Creek and the Wenatchee River increases.

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

This project will allow passage of all aquatic organisms at all stream flows through installing a crossing structure that does not alter the streams' natural grade or substrate. Restoring passage at all streamflows will allow access to quality habitat for all aquatic species. The Beaver Creek watershed contains approximately six miles of stream habitats with intrinsic potential for steelhead and/or bull trout. Replacing this culvert within the lower mile of Beaver Creek will restore access to more Beaver Creek habitat and increase species adaptability. As regional climate change projections include increased wildfire severity and area (Rogers et al., 2011), access to habitat across a wide geographic range will be imperative to ensure all aquatic species have access to some suitable habitat.

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

CCNRD has completed over 35 similar barrier replacement projects within the Wenatchee Watershed. CCNRD has the qualified staff necessary to successfully complete this project. Through all previous barrier correction projects, CCNRD has refined the approach to contracting, implementation, construction oversight, site rehabilitation, landowner coordination, permit compliance, etc. The sponsor is adept at developing and implementing comprehensive strategies for multi-phased watershed-scale barrier replacement projects. CCNRD staff are competent managing landowner relations, required permitting, design engineering coordination, and construction oversight required for barrier corrections.

#12: Will veterans (including the veterans conservation corps) be involved in the project? If yes, please describe.
No

Restoration Supplemental

#1: What level of design (per Appendix D) have you completed? Please attach.
Final

#2: Will (or did) a licensed professional engineer design the project?
Yes

#3: Does the project include measures to stabilize an eroding stream bank?
No

#4: Is the primary activity of the project invasive species removal?
No

#5: Is the primary activity of the project riparian planting?
No

#6: Describe the steps you will take to minimize the introduction of invasive species during construction and restoration. Consider how you will use un-infested materials and clean equipment entering and leaving the project area.

Construction activities will follow all required permits. The Hydraulic Project Approval from WDFW includes a provision for Invasive Species Control. Contractors will thoroughly remove visible dirt and debris from all equipment and gear before arriving and leaving the job site, to prevent the transport and introduction of invasive species. Contractors will also properly dispose of any water and chemicals used to clean gear and equipment.

#7: Describe the long-term stewardship and maintenance obligations for the project.

The landowners are obligated for the long-term stewardship and maintenance of the project.

Restoration Metrics

Worksite: Barrier 040016 (#1)

Miles of Stream and/or Shoreline Treated or Protected (C.0.b)

0.01

Project Identified In a Plan or Watershed Assessment (C.0.c)

-UCSRB, 2007, Upper Columbia Steelhead Recovery Plan, [http://resources/reports-plans/recovery-plan/Technical Team \(RTT\). 2019. Upper Col Step 1 Results. -NPCC, 2004. https://www.nwcouncil.org/sites/default/files/-FBRB. 2021. Manu content/uploads/20](http://resources/reports-plans/recovery-plan/Technical%20Team%20(RTT).2019.Upper%20Col%20Step%201%20Results.-NPCC,2004.https://www.nwcouncil.org/sites/default/files/-FBRB.2021.Manucontent/uploads/20)

Project Application Report - 23-1284

Priority in Recovery Plan	This project is located in Beaver Creek, which is within the designated priority watershed for the Upper Columbia region (FBRB manual 22, Appendix A, Page 33). This barrier is ranked as the # 1 barrier for removal within the designated priority watershed (RTT 2019). Improving fish passage in this assessment unit has been identified as a high priority action in regional planning documents such as the Wenatchee Subbasin Plan (NPCC 2004) and Upper Columbia Salmon Recovery Plan (UCSRB 2007).
Type Of Monitoring (C.0.d.1)	Implementation Monitoring
Monitoring Location (C.0.d.2)	Onsite

FISH PASSAGE IMPROVEMENT

Miles Of Stream Made Accessible (SRFB) (C.2.b.1)	1.60
Habitat made accessible (2489)	This project is part of a suite of projects for fish passage work in Beaver Creek that will restore passage to the entire 2.7 miles of high quality habitat for ESA species. Replacing this barrier will immediately provide uninhibited access to 1.6 river miles of quality instream habitat for ESA-listed salmonids of all life stages.
Additional barriers (2490)	This is the downstream-most anthropogenic barrier in Beaver Creek. All other known barriers within the documented range of fish distribution in Beaver Creek have been removed or have active projects to replace them. The next upstream barrier is currently approximately 1.1 river miles upstream. However, this upstream barrier is being replaced. As a result, this project is a critical component in a suite of work being performed to provide unimpeded access to habitats in Beaver Creek.
Type Of Barrier (C.2.b.3)	Culvert
Number of blockages / impediments / barriers impeding passage (C.2.b.4)	1
Describe the current barrier (2486)	The current barrier is a 67% passable, corrugated-steel, squashed culvert. It is 10.1 meters in length with a span 1.43-m and a rise of 0.91-m. It is a barrier due to velocity. The overall materials of the crossing have been well maintained.
Passage problem (2487)	Velocity
Passability (2488)	67% (Partial)

Culvert installed or improved (C.2.f.1)

Total cost for Culvert installed or improved	\$458,834
Number of culverts (C.2.f.2)	1
Miles of stream made accessible by culvert installation/repair (C.2.f.3)	1.60
Correction option (2491)	Stream simulation

ARCHITECTURAL & ENGINEERING

Architectural & Engineering (A&E)

Total cost for Architectural & Engineering (A&E)	\$12,796
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AGENCY INDIRECT COSTS

Agency Indirect

Total cost for Agency Indirect	\$3,236
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Note: 20.6% of staff salaries

Project Application Report - 23-1284

Overall Project Metrics

COMPLETION DATE

Projected date of completion

10/15/2024

Restoration Cost Estimates

Worksite #1: Barrier 040016

Category	Work Type	Estimated Cost	Note
Agency Indirect Costs	Agency Indirect	\$3,236	20.6% of staff salaries
Fish Passage Improvement	Culvert installed or improved (C.2.f.1)	\$458,834	
	Subtotal:	\$462,070	
Admin, Architecture, and Engineering		\$12,796	
	Total Estimate For Worksite:	\$474,866	

Summary

Total Estimated Costs Without AA&E:	\$462,070
Total Estimated AA&E:	\$12,796
Total Estimated Restoration Costs:	\$474,866

Cost Summary

	Estimated Cost	Project %	Admin/AA&E %
<u>Restoration Costs</u>			
Restoration	\$462,070		
Admin, Architecture, and Engineering	\$12,796		2.79 %
SUBTOTAL	\$474,866	100.00 %	
Total Cost Estimate	\$474,866	100.00 %	

Funding Request and Match

FUNDING PROGRAM

Salmon State Projects	\$36,121	7.606567 %
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SPONSOR MATCH

STATE FUNDING

GRANT - RCO FBRB

Amount \$438,745.00

Funding Organization Recreation and Conservation Office (RCO)

Match Total: \$438,745.393433

Total Funding Request (Funding + Match): \$474,866.000000

Questions

#1: Explain how you determined the cost estimates

Cost estimates are from the final design engineer's estimate and CCNRD staff projections.

Project Application Report - 23-1284

Cultural Resources

Cultural Resource Areas

Worksite #1: Barrier 040016

Area: Beaver barrier APE

#1: Provide a description of the project actions at this worksite (acquisition, development and/or restoration activities that will occur as a part of this project)

An existing culvert will be removed and replaced with a new crossing structure. Road fill will be added or removed, and the road will be regraded, to match the new crossing structure.

#2: Describe all ground disturbing activities (length, width and depth of disturbance and equipment utilized) that will take place in the Area of Potential Effect (APE). Include the location of any construction staging or access roads associated with your project that will involve ground disturbance.

The existing road prism at the site of the crossing will be excavated using a large excavator, for a total road length of ~80 ft. The existing culvert will be removed. The streambanks in the area of the current crossing will be matched to existing upstream and downstream conditions, with total stream length of ~ 50 ft. Footings will be placed to allow for installation of the new crossing structure. Once the new crossing is installed, the road will be graded to match its elevation.

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

None

#4: 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 project area is currently a paved driveway accessing a private lodge facilities. The current road fill depth (including existing culvert) is 2 m.

#5: Will a federal permit be required to complete the scope of work on the project areas located within this worksite?
Yes

#5a: List the agency that will be issuing the permit and the date you anticipate applying for and receiving the permit. Will the federal permit cover ALL proposed ground disturbing activities included in the project?

We applied to the Army Corps of Engineers for a Nationwide Permit under Section 404 (CWA) in January of 2023. The Army Corps is also lead agency for Section 7 (ESA) and Section 106 (NHPA) consultation. The federal permit will cover all ground disturbing activities included in the project.

#6: Are you utilizing Federal Funding to complete the scope of work? This includes funds that are being shown as match or not.

Unknown

#7: Do you have knowledge of any previous cultural resource review within the project boundaries during the past 10 years?

Yes

#7a: Summarize the previous cultural resource review; including lead agency and date of review, reference name and numbers, etc. If RCO, include the prior phase grant number. NOTE: Do not provide any site-specific information considered confidential. Attach previous surveys or other reference documents.

RCO completed cultural resource review for this project under grant 20-1836.

Project Application Report - 23-1284

#8: Is the worksite located within an existing park, wildlife refuge, natural area preserve, or other recreation or habitat site?

No

#9: 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.

No

Project Permits

Permits and Reviews	Issuing Organization	Applied Date	Received Date	Expiration Date	Permit #
Cultural Assessment [Section 106]	DAHP	01/11/2023			
Dredge/Fill Permit [Section 10/404 or 404]	Army Corps of Eng.	01/11/2023			
Endangered Species Act Compliance [ESA]	US Fish & Wildlife	01/11/2023			
Hydraulics Project Approval [HPA]	Dept of Fish & Wildlife	01/17/2023	02/06/2023	02/01/2028	2023-2-10+01
Water Quality Certification [Section 401]	County/Dept of Ecy.	01/11/2023			

Permit Questions

#1: Are you planning on using the federal permit streamlining process? **Limit 8**

Yes

Project Application Report - 23-1284

Attachments

Required Attachments

6 out of 6 done

- Applicant Resolution/Authorizations
- Cost Estimate
- Landowner acknowledgement form
- Map: Restoration Worksite
- Photo
- RCO Fiscal Data Collection Sheet

- ✓
- ✓
- ✓
- ✓
- ✓
- ✓

PHOTOS (JPG, GIF)

Photos (JPG, GIF)



558871 Primary # 563305

PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

Project Application Report - 23-1284

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	01/16/2024	Map: Area of Potential Effect (APE)	Project APE Report (01/16/24 08:55:20)	MarkJ	Project APE Report - 23-1284 (01-16-2024_08-55-20).pdf, 592646	✓
	01/16/2024	Cultural Resource Screening Report	Project Cultural Resource Screening Report (01/16/24 08:55:2	MarkJ	Project Cultural Resource Screening Report - 23-1284 (01-16-2024_08-55-20).pdf, 592645	✓
	01/16/2024	Project Application Report	Project Application Report, 23-1284R (sub 01/16/24 08:55:19)	MarkJ	Project Application Report - 23-1284 (submitted 01-16-2024_08-55-19).pdf, 592644	✓
	01/16/2024	Project Review Comments	Proj Review Comments LE, 23-1284R(compl 01/16/24 08:55)	MarkJ	Project Review Comments Report - 23-1284 (compl 01-16-2024_08-55-03).pdf, 592643	✓
	01/16/2024	Project Review Comments	Proj Review Comments Initial, 23-1284R(compl 01/16/24 08:54)	MarkJ	Project Review Comments Report - 23-1284 (compl 01-16-2024_08-54-50).pdf, 592642	✓
	07/17/2023	RCO Fiscal Data Collection Sheet	2023 SRFBFiscalDataCollectionSheet_CCNRD_	BryanM	2023 SRFBFiscalDataCollectionSheet_CCN... 571294	
	07/12/2023	Applicant Resolution/Authorizations	2023 RCO applicant resolution-authorization_SRFB_CCNRD.pdf	BryanM	2023 RCO applicant resolution-authorization_SRFB_CCNRD.pdf, 570346	✓
	07/03/2023	Application Review Report	Grant Manager Comments, 23-1284R(compl 07/03/23 09:22)	Ameeb	Grant Manager Comments Report - 23-1284 (compl 07-03-2023_09-22-14).pdf, 569015	✓
	06/22/2023	Project Application Report	Project Application Report, 23-1284R (sub 06/22/23 09:30:30)	BryanM	Project Application Report - 23-1284 (submitted 06-22-2023_09-30-30).pdf, 567270	✓
	06/06/2023	Visuals	Beaver_MSL_barrier_construction_RTT_p	BryanM	Beaver_MSL_barrier_construction_R... 564835	✓
	05/23/2023	Application Review Report	Grant Manager Comments, 23-1284R(rtnd 05/23/23 15:06)	Ameeb	Grant Manager Comments Report - 23-1284 (rtnd 05-23-2023_15-06-17).pdf, 563630	✓
	05/23/2023	Application Review Report	Grant Manager Comments, 23-1284R(rtnd 05/23/23 15:04)	Ameeb	Grant Manager Comments Report - 23-1284 (rtnd 05-23-2023_15-04-36).pdf, 563629	✓
	05/18/2023	Visuals	23-1284_SRFB_JotForm_w_coverpage.pdf	BryanM	23-1284_SRFB_JotForm_w_coverpage.pdf, 563316	✓
	05/18/2023	Photo	Beaver_barrier_crossing.jpg	BryanM	Beaver_barrier_crossing.jpg, 563305	✓
	04/21/2023	Project Application Report	Project Application Report, 23-1284R (sub 04/21/23 13:15:22)	BryanM	Project Application Report - 23-1284 (submitted 04-21-2023_13-15-22).pdf, 559149	✓
	04/21/2023	Letters of Support	WDFW Letter of Support.pdf	BryanM	Beaver Creek Letter of Support.pdf, 559144	✓
	04/21/2023	Map: Restoration Worksite	Attachment A. Maps_BeaverCreek_040016.pdf	BryanM	Attachment A. Maps_BeaverCreek_040016.pdf, 559048	✓
	04/21/2023	Cost Estimate	SAL-CostEstimate_23-1284_Beaver_barrier.xlsx	BryanM	SAL-CostEstimate_23-1284_Beaver_barrier.xlsx, 559047	✓
	04/20/2023	Photo	040016.jpg	BryanM	040016.jpg, 558871	✓
	04/20/2023	Preliminary design report	Beaver Creek Preliminary Design Report.pdf	BryanM	Beaver Creek Preliminary Design Report.pdf, 558867	✓
	04/20/2023	Final design	Beaver Creek - DRAFT Final Plans.pdf	BryanM	Beaver Creek - DRAFT Final Plans.pdf, 558866	✓
	04/20/2023	Landowner acknowledgement form	LAF Form Signed_Beaver_MSL.PDF	BryanM	LAF Form Signed_Beaver_MSL.pdf, 558791	
	04/20/2023	Correction Analysis Form	Appendix C - Beaver Creek CAF.pdf	BryanM	Appendix C - Beaver Creek CAF.pdf, 558790	✓
	04/20/2023	WDFW barrier & screening forms	040016_Report.pdf	BryanM	040016_Report.pdf, 558789	✓
	04/20/2023	RCO Fiscal Data Collection Sheet	2023 SRFBFiscalDataCollectionSheet_CCNRD_	BryanM	2023 SRFBFiscalDataCollectionSheet_CCN... 558788	
	04/20/2023	Applicant Resolution/Authorizations	2023 ApplicantAuthorizationResolution_CCNRD_	BryanM	2023 ApplicantAuthorizationResolution_CC... 558787	✓

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Application Status

Application Due Date: null

Status Name	Status Date	Submitted By	Submission Notes
Application Complete	07/03/2023	Amee Bahr	Thank you for addressing comments. Your project was cleared by the Review Panel for 2023 SRFB funding. We will be in touch regarding your agreement after the September Board meeting. Please let us know if you have any questions.
Application Resubmitted	06/22/2023	Bryan Maloney	
Application Returned	05/23/2023	Amee Bahr	This project is cleared, but there are few things in the Grant Manager Comments page I would like you to address. When finished, please resubmit the application and I will move it to App Complete. Thanks for a great project application!
Application Returned	05/23/2023	Amee Bahr	This project is cleared, but there are few things in the Grant Manager Comments page I would like you to address. When finished, please resubmit the application and I will move it to App Complete. Thanks for a great project application!
Application Submitted	04/21/2023	Bryan Maloney	
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. (Bryan Maloney, 06/22/2023)

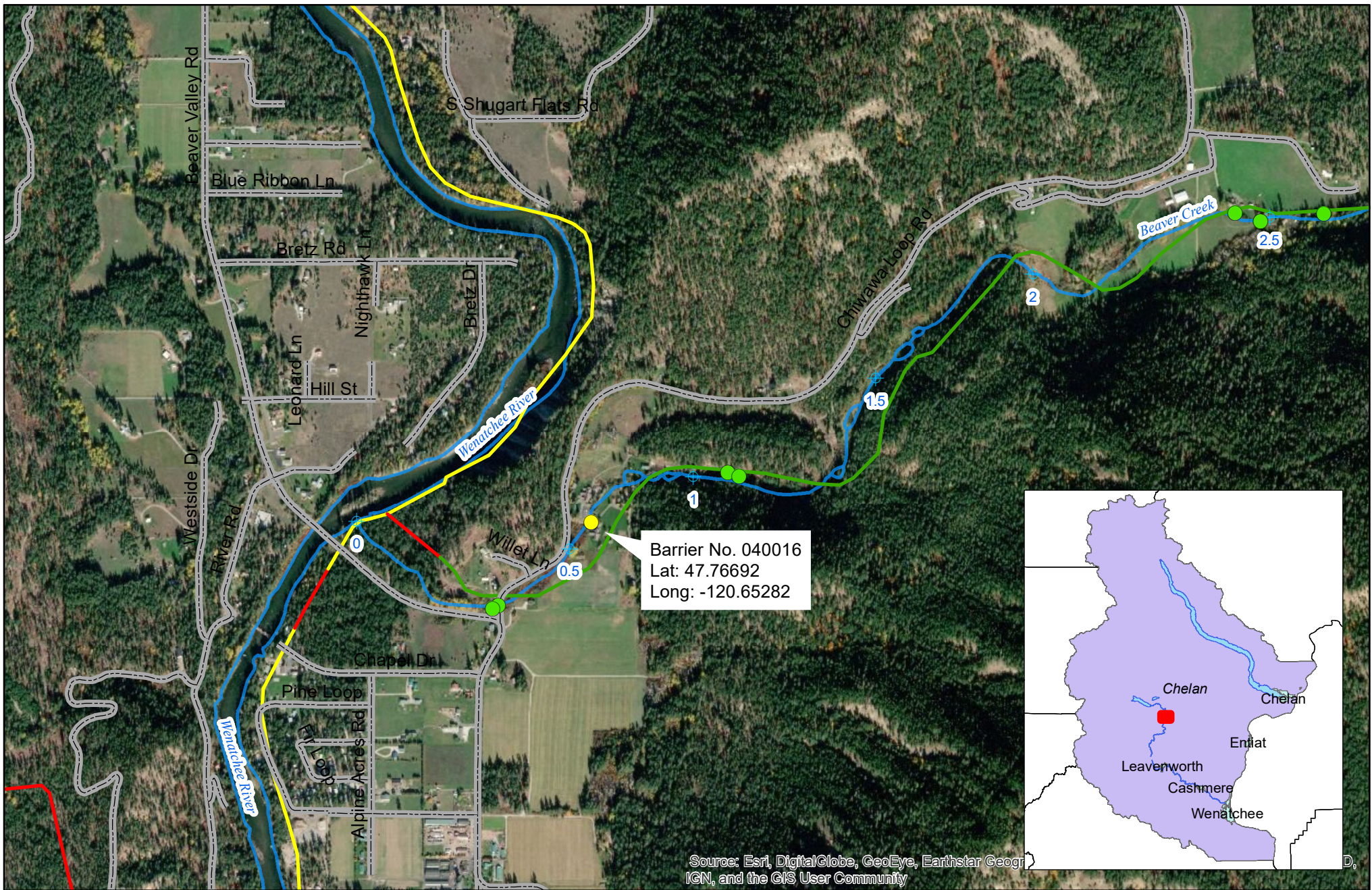
Date of last change: 01/16/2024

CUMULATIVE TOTALS

This sheet contains automatic calculations

Project Name	Beaver Creek Barrier Correction Implementation
SRFB #	23-1284
Sponsor	Chelan County Natural Resource Department

	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	\$ -	\$ -	\$ -	\$ -	
Indirect Costs	\$ -	\$ -	\$ -	\$ -	
STotal	\$ -	\$ -	\$ -	\$ -	0
<u>Sheet #3 Restoration</u>					
Construction Costs	\$ 458,835	\$ 34,887	\$ 423,948	\$ -	0
AA&E	\$ 12,796	\$ 985	\$ 11,811	\$ -	(0)
Indirect Costs	\$ 3,236	\$ 249	\$ 2,987	\$ -	
STotal	\$ 474,866	\$ 36,121	\$ 438,745	\$ -	0
Totals	\$ 474,866	\$ 36,121	\$ 438,745	\$ -	0



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
IGN, and the GIS User Community

Project: Beaver Creek Barrier Replacement

WDFW Site ID: 040016; 67% passable

Physical Address: Mountain Springs Lodge, 19115 Chiwawa Loop Road
Leavenworth, WA 98826

Intrinsic Potential: Steelhead

— Low — Medium — High

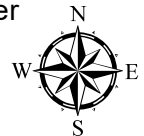
0 500 1,000 2,000 Feet



● 100% Passable Barrier

● 67% Passable Barrier

⊕ Rivermiles





**Chelan Co Natural Resource; Beaver Creek
Barrier Correction Implementation (#23-1284)**



Chelan Co Natural Resource; Beaver Creek Barrier Correction Implementation (#23-1284)

Attachment #563305, Beaver_barrier_crossing.jpg



State of Washington
Department of Fish and Wildlife

Dear Project Evaluators,

The Washington Department of Fish and Wildlife (WDFW) strongly supports the Beaver Creek fish passage removal project that is currently being worked on by Chelan County Natural Resources Department. WDFW has been working with the Fish Barrier Removal Board to replace high priority fish passage barriers throughout Washington State for the last few biennia. The Upper Columbia River Salmon Recovery Board selected the Wenatchee River HUC 10 as their FBRB priority watershed and listed Beaver Creek as the highest priority stream to remove fish passage barriers in. The proposed barrier is the lowest barrier in the system and is currently the highest priority barrier in the region for FBRB funding that was proposed for 2021-2023 funding. The FBRB is also interested in funding multiple fish barrier proposals upstream of the Mountain Springs Lodge crossing in order to make the Beaver Creek system barrier free.

Beaver Creek provides cool and diverse habitat for steelhead and Spring Chinook, making the stream system valuable and worthy of investment. Temperature is one of the most important environmental influences on salmonid biology making cool clean systems like Beaver Creek imperative in the face of climate change. Additionally, correcting this barrier would provide unimpeded access to miles of stream listed as high quality in the Steelhead Intrinsic Potential Model. The Upper Columbia Salmon Recovery Board's culvert prioritization model lists this barrier as Tier 4, but has a total barrier listed on Beaver Creek upstream that is on a tributary, which seems to be negatively affecting the score. Additionally, the prioritization tool lists 3 downstream barriers giving the project a downstream barrier score of 1. This is the lowest barrier in the Beaver Creek system.

I strongly support the Beaver Creek Mountain Springs Fish Passage Project. Providing funding to this project will strongly help Chelan County Natural Resources Department in their effort to remove fish passage barriers in the Wenatchee River HUC 10 utilizing multiple funding sources. Funding for this project would build upon multiple barrier replacement funding requests upstream as well as previous investments including a coho rearing pond and multiple other fish passage removal projects.

Cade Roler – Washington Department of Fish and Wildlife
Fish and Wildlife Biologist 4 – Technical Lead for Fish Barrier Removal Board