Contact Information

2025 Upper Columbia Regional Project Pre-Application

* Pre-applications (SRFB & Monitoring) due March 12, 2025 (COB)

*Complete SRFB applications due in PRISM April 18, 2025 (COB)

*Complete Monitoring applications due in PRISM May 1, 2025 (COB)

*Revised SRFB proposals due in PRISM May 27, 2025 (COB)

*Final revised SRFB & Monitoring applications due in PRISM June 23, 2025 (noon)

Project Title	Wenatchee RM 2.75 - 4.5 Feasibility and Conceptual Design
Sponsor	Cascade Fisheries
Primary Contact	Aaron Rosenblum
E-Mail Address	aaron@ccfeg.org

Project Summary

Please provide a description or summary of the proposed project, including 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.

The project will create a reach-scale conceptual design that will provide a blueprint for habitat restoration and enhancement on the lower Wenatchee River from RM 2.75-4.5. A project-specific conceptual design will also be created that will encompass the area of current willing landowners. The project is expected to address high priority limiting factors for this reach including cover-wood, riparian canopy cover, floodplain connectivity, and off-channel/side channel habitat. US Highway 2 boarders the river and bisects the floodplain on river left throughout much of the project area. The project will investigate feasibility and cost effectiveness of alternatives to provide water and fish access to the disconnected floodplain by completing a Value Planning Study. The project will include a data collection task including groundwater and topographic data collection, as well as a geotechnical analysis; a feasibility/alternatives task that will be completed by a Value Planning Study; a reach-scale conceptual design task; and a project-scale conceptual design task. Implementation of this project will lead to future design phases and eventually implementation of a restoration project that could provide access to important, currently disconnected, habitat, as well as improve existing habitat in the Wenatchee River.

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 proposal has the following objectives:
- Within 6 months of funding complete a background data/literature review for the project area.
- Within 6 months of funding gather existing lidar and bathymetric lidar. Collect ground-based topographic data
- Collect groundwater data from at least 5 sites for at least 18 months.
- Conduct 1 geotechnical study of the highway 2 prism within 1 year of funding
- Conduct 1 Value added planning study within 1 year of funding
- Create existing conditions hydraulic models to inform conceptual designs within 18 months of funding
- Create a reach-scale conceptual design or blueprint to guide restoration activities from RM 2.75-4.5 within 2 years of funding
- Create a project specific design that encompasses willing landowners and details how project fits into the larger blueprint for the reach within 2 years of funding.

Budget Request

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

Anticipated Request - SRFB (standard round)	150,000
Tributary Committee - Anticipated or Actual	150,000
Anticipated TOTAL Budget	300,000

Project Location

Briefly describe the location of the project	Wenatchee River RM 2.75 - 4.5
Latitude (decimal degrees)	47.480107
Longitude (decimal degrees)	-120.389839
Project subbasin	Wenatchee
Wenatchee Assessment Unit(s)	Wenatchee River-Nahahum Canyon
Does the proposed project span multiple assessment units?	No
Reach(es) Name	Nahahum 04
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	Rank 3

reference the Prioritization Web Map: https://prioritization.ucsrb.org/.

Project Information

1. What species will the project benefit?

Spring Chinook | Steelhead | Bull Trout | Summer Chinook | coho

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

Design, Monitoring or Assessment

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

No

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

No

6. What category is the project?

Design

Is the project eligible for Riparian Funding?

No

Design and Restoration Proposals

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

Conceptual Design

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)?

Lower Wenatchee River

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

Cover - Wood | Off-Channel - Floodplain | Off-Channel - Side-Channels | Pool Quantity & Quality | Riparian - Canopy Cover | Temperature - Rearing

10. Which life stages will the proposed project address?

Subadult Rearing (Bull Trout) | Fry | Summer Rearing | Winter Rearing

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

The goals of the design created through this proposal will be to provide more frequent floodplain inundation and connection at high frequency flows to floodplain and off-channel habitat, create additional cover and structure in the existing river channel, and establish riparian vegetation on mid-channel islands. The lower Wenatchee is a Major Spawning Area for steelhead, foraging and overwintering habitat for bull trout, a spawning and rearing area for summer Chinook, and migration corridor for sockeye, spring Chinook, summer chinook, coho, steelhead, and bull trout (Table 1) (ibid) (Andonaegui 2001). Juveniles of

all three ESA-listed species rear in the lower Wenatchee.

Rivers, and the ESA-listed fish that live in them, require a regular connection to their floodplains to maintain natural processes and overall watershed health. Once implemented, this project will reconnect substantial acreage of floodplain in an area of the watershed that is heavily impacted by human development and infrastructure. Floodplain habitats provide a low velocity, high productivity area that is essential for juvenile salmonids to thrive. Healthy, connected floodplains also provide important watershed process functions including, flood water and energy dispersion, water storage, carbon storage and sequestration, riparian habitat maintenance, and source of future wood/cover to instream habitats.

The mid-channel bars/islands located within this project reach are mostly bare and lacking in riparian vegetation. Riparian vegetation plays an important role in watershed processes. The existing disconnected floodplain at this site contains a riparian vegetation community in many locations. Reconnecting these areas to the river would provide immediate benefits provided by an intact riparian community. Restoring mature native riparian vegetation to the floodplain will promote natural processes including floodwater and groundwater retention and storage, sediment and pollutant filtration, bank and channel stability, and large wood recruitment.

Side channels are naturally occurring features of a riverscape. However, they are frequently cut off from the river when the channel is artificially confined. Side channels and off-channel areas provide important rearing habitat for target fish species. Martens and Connolly (2014) found higher densities of salmonids in seasonally disconnected, partially connected, and fully connected side channels than in mainstem channels. This proposal would explore the possibility of creating side channels within the project area.

This project occurs in the Wenatchee River – Nahahum Canyon Assessment Unit (AU). This AU is ranked as a Tier 2 for Steelhead Restoration and Tier 3 for Spring chinook restoration. For both spring chinook and steelhead the “Winter Rearing” life stage is a “High Priority” and “Smolt Emigration” is a “Medium Priority”. Both of these life stages are addressed through implementation of this project. In the Nahahum 04 reach the following Rank 1 (unacceptable) limiting factors could be addressed through implementation of
this project: Bank Stability, Channel Stability, Cover- Wood, Riparian-Canopy Cover, Temperature- Rearing. The following Rank 2 (at risk) limiting factors could be addressed through implementation of this project: Floodplain connectivity, Off-Channel- Side-Channels, Pool quantity and quality, Riparian.

This is a large project area with potentially large amounts of disconnected floodplain that could be reconnected. Implementation of this project could result in large biological benefits.

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?

Significant human infrastructure has severely impaired watershed processes and functions in the lower Wenatchee River. The natural and artificial confinement in this section of the river limit restoration opportunities and have resulted in a stable channel with limited connection to floodplains and off-channel habitat.

Restoring floodplain connectivity can help improve natural watershed processes. A properly functioning floodplain acts as an extension of the alluvial aquifer, attenuating stream flows and energy as floodwaters disperse onto the floodplain and discharging stored water during drier months. Connected floodplains regulate stream flows, water temperature, and water quality. Floodplain groundwater discharge to streams provides cool water areas for rearing fish, and floodplain groundwater storage has also been shown to attenuate peak flows (Acreman et al. 2003). Implementation of this project could provide a large increase in connected floodplain.

This project will examine using process-based riparian methods. The bare islands likely receive flow velocities that are to high and preclude the establishment of vegetation. The Wenatchee River is artificially confined in this reach and lacks large wood. Installing roughness features on the islands could create the hydraulic shadow necessary to establish riparian vegetation and realize all the benefits that come along with it.

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

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

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?

Following implementation, the project will require regular check ups and maintenance during the first three - five years following implementation to ensure successful establishment of riparian vegetation. Instream project elements, e.g. pools and side channels, will be designed to be self-maintaining.

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

The following describe feasibility and design scope and methods for this proposal, as well as potential restoration methods for the design itself.

- Data Collection: CF will lead and coordinate the effort to collect data and information that will aid in the development of designs. The following data/information will be collected:
Background data/Lit Review: CF and/or a hired consultant will collate existing literature and information about the site. This will include coordination with local fish biologists and restoration experts.
Topographic: Existing lidar and bathymetric Lidar exists for the project site. These data will be gathered from DNR. Ground based topographic data will be collected by total station or satellite based equipment and integrated into the lidar data to create an accurate surface representation of existing conditions.
Groundwater: At least 5 groundwater wells with data logging piezometers will be installed on floodplain areas within the project area. Groundwater data will be used to inform future side channel and floodplain engagement design, as well as define potential biological benefits of these features.
Geotechnical: A preliminary geotechnical analysis will be preformed on the WSDOT HWY2 right of way. This analysis will inform potential options for getting water and fish to the north side of HWY 2.

- Value Planning Study: CF will lead the effort to complete a Value Planning Study for the project reach. Value added planning is used to evaluate the economic feasibility and biological benefit of different project alternatives. This involves comparing the costs and benefits of each option, considering factors like engineering, challenges, complexity, and ecological uplift. The Value Methodology is a systematic and organized way to develop and compare alternatives that will get the job done (provide all the essential functions) with the greatest value (greatest efficiency, economy, quality, and the least delay). The Value Methodology Job Plan follows a sequence of phases, or steps, designed to lead a multi-disciplinary team through a structured way of thinking. The steps from start to finish are: preparation, information, function analysis, creativity, evaluation, development, presentation, implementation. To complete this task we would convene a stakeholder group and host a focused workshop to work through the above steps, allowing us to take a deep dive into the project area. The stakeholder group would be multi-disciplinary, and would be expected to be comprised of local expert fish biologists and geomorphologists, as well as hired consultants included the design restoration team, highway experts, and cost estimator experts.

- Reach Scale Conceptual Design: CF will coordinate with a licensed engineering consultant to create a conceptual design that will cover the entire project area from RM 2.75 - 4.5. Existing conditions hydraulic models will be developed to inform the design. This concept will serve as a large-scale blueprint for potential restoration actions possible in this reach if/when landowner willingness is obtained. The reach-scale design will be based off of the results of the Value planning study and the data collected in #1. The design will identify smaller project components that can be broken off into phases.

- Project-specific conceptual design: A conceptual design will be developed specific to current landowners willingness. At the time of project proposal this includes WSDOT, WDFW, and WA DNR. However, landowner outreach and engagement will continue throughout the project. Hydraulic models will be developed to inform the design. The project-specific design will include a design report that describes how the project fits into the larger reach-scale design and can be built upon at a later date if/when landowner

willingness changes.

A large number of potential restoration actions exist with in the project reach

We will investigate the feasibility of reconnecting the large disconnected floodplain on the other side of Highway 2. This is over 100 acres of disconnected floodplain. Potential alternatives include culvert or bridge installation, use of a boring machine, or partial or full road re-alignment.

Several other floodplain reconnection opportunities exist in the project reach including on river right around RM 3, river left around RM 3, river left around RM 3.5, river right/mid-channel from RM 3.5 - 4, and on river left from RM 4 - 4.5. Potential specific actions in these areas that would benefit salmonids and riverine processes include creating groundwater fed off-channel habitat, alcove creation/enhancement, installation of wood habitat structures, riparian vegetation, and invasive plant removal.

This project will examine using process-based riparian methods. The bare islands throughout much of the project area likely receive flow velocities that are too high and preclude the establishment of vegetation. The Wenatchee River is artificially confined in this reach and lacks large wood. Installing roughness features on the islands could create the hydraulic shadow necessary to establish riparian vegetation and realize all the benefits that come along with it.

Assessment Proposals

Protection Proposals

Monitoring Proposals

Project Risk and Economic Benefits

1. What is the landownership? WSDOT, DNR aquatic lands, WDFW

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

Please explain

The proposal has been discussed with all three agencies and all are supportive. We are currently conducting outreach to surrounding private landowners.

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

WSDOT will require a right of entry permit to conduct assessment and design work. All three agencies will have approvals for construction.

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

We expect that adjacent landowners will be concerned about increased flooding risk. We will address this issue with extensive modeling and demonstrating compliance with the FEMA/Chelan County floodplain regulations.

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

CF will manage and administer the project.

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

Don't know

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

This is a design project with low risk of failure.

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

We are currently conduction outreach to surrounding landowners. Additional outreach would be necessary prior to implementation. This is a high visibility project area that could get lots of attention and boost support for recovery efforts.

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

This design project will partially fund 2 FTEs at Cascade Fisheries and one or more local design engineering firms. Once implemented, the project will provide a substantial construction contract to a local company, support CF staff, and help salmon recovery. Given the large floodplain and overall size of the potential project area, this project could create a large biological benefit for the dollars invested.

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

CF will partner with WSDOT, WDFW, and DNR on this project. We are currently working on multiple projects with WSDOT and have a strong working relationship with them. We are currently working with WDFW on the lower Peshastin project. Through many years of partnering on this project we have learned the ins and outs of the Restoration Pathway process, and have developed strong working relationships with WDFW personnel. Additionally, CF will work the the WDFW Restoration specialist on this project.

Optional Section - Preparation for PRISM (SRFB applications only)

The following questions are identical to the questions RCO requires in the PRISM application for SRFB projects. If desired, sponsors can complete associated questions early and copy responses into PRISM during the "Complete Application" phase due on April 18, 2025.
*please note, this section is not applicable for Monitoring proposals

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

No

Supporting Documents

Upper Columbia Process Guide 2025

SRFB Manual 18 (2025)

RCO Application Resources (2025)

PROJECT: 25-1212 PLAN, WENATCHEE RM 2.75-4.5 FEASIBILITY & CONCEPT DESIGN

Sponsor: Cascade Col Fish Enhance Group Program: Salmon State Projects Status: Application Submitted

Parties to the Agreement

PRIMARY SPONSOR

Cascade Columbia Fisheries Enhancement Group
Address PO Box 3162
City Wenatchee **State** WA **Zip** 98807
Org Type Non-Gov-Reg Fisheries Enhance Group
Vendor # SWV0010742-00
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.

WSDOT- Landowner/infrastructure owner
WDFW- Landowner/technical adviser
WA DNR- Aquatic Lands Owner

External Systems

SPONSOR ASSIGNED INFO

Sponsor-Assigned Project Number

Sponsor-Assigned Regions

LINK AN EXISTING SRP PROJECT

Unlink

25-1212, Wenatchee RM 3.25-4.5 Feasibility & Concept D

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
Aaron Rosenblum Cascade Col Fish Enhance Group	Project Contact	(509) 630-4160	aaron@ccfeg.org
Ariel Edwards Upper Columbia Salmon Rcy Bd L	Lead Entity Contact	(208) 540-2691	ariel.edwards@ucsrb.org

Worksites & Properties

#	Worksite Name
#1	Wenatchee RM 2.75 - 4.5

Planning	Property Name
✓	WDFW
✓	WSDOT

Worksite Map & Description

Worksite #1: Wenatchee RM 2.75 - 4.5

WORKSITE ADDRESS

Street Address Unassigned
City, State, Zip Wenatchee WA 98801

Worksite Details

Worksite #1: Wenatchee RM 2.75 - 4.5

SITE ACCESS DIRECTIONS

From Wenatchee travel West on highway 2 towards Leavenworth. Site is at the bottom of the big hill

TARGETED ESU SPECIES

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

Reference or source used

UCSRB spawning maps. NOAA 2022 status review

TARGETED NON-ESU SPECIES

Species by Non-ESU	Notes
Lamprey	

Questions

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

US HWY 2 MP 115-116

Project Location

RELATED PROJECTS

Projects in PRISM

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

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.

Wenatchee River RM 3.25 - 4.5. Includes mainstem, off-channel/floodplain, wetland, and mid-channel bar habitat types

#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 occurs in the Wenatchee River – Nahahum Canyon Assessment Unit (AU). This AU is ranked as a Tier 2 for Steelhead Restoration and Tier 3 for Spring chinook restoration. For both spring chinook and steelhead the "Winter Rearing" life stage is a "High Priority" and "Smolt Emigration" is a "Medium Priority". Both of these life stages are addressed through implementation of this project. In the Nahahum 04 reach the following Rank 1 (unacceptable) limiting factors could be addressed through implementation of this project: Bank Stability, Channel Stability, Cover- Wood, Riparian-Canopy Cover, Temperature- Rearing. The following Rank 2 (at risk) limiting factors could be addressed through implementation of this project: Floodplain connectivity, Off-Channel- Side-Channels, Pool quantity and quality, Riparian.

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

No

#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**

Yes

Property Details

Property: WDFW (Worksite #1: Wenatchee RM 2.75 - 4.5)

✓ **Planning**

LANDOWNER

Name	Washington Department of Fish and Wild
Address	Unassigned
City	Monitor
State	WA Zip 98836
Type	State

CONTROL & TENURE

Instrument Type	Public Use Agreement
Timing	Proposed
Term Length	Fixed # of years
# Yrs	3
Expiration Date	
Note	

Property: WSDOT (Worksite #1: Wenatchee RM 2.75 - 4.5)

✓ **Planning**

LANDOWNER

Name	Department of Transportation (WSDOT)
Address	PO Box 47300
City	Olympia
State	WA Zip 98504-7300
Type	State

CONTROL & TENURE

Instrument Type	Public Use Agreement
Timing	Proposed
Term Length	Fixed # of years
# Yrs	3
Expiration Date	
Note	

Project Proposal

Project Description

The project will create a reach-scale conceptual design that will provide a blueprint for habitat restoration and enhancement on the lower Wenatchee River from RM 2.75-4.5. A project-specific conceptual design will also be created that will encompass the area of current willing landowners. The project is expected to address high priority limiting factors for this reach including cover-wood, riparian canopy cover, floodplain connectivity, and off-channel/side channel habitat. US Highway 2 boarders the river and bisects the floodplain on river left throughout much of the project area. The project will investigate feasibility and cost effectiveness of alternatives to provide water and fish access to the disconnected floodplain by completing a Value Planning Study. The project will include a data collection task including groundwater and topographic data collection, as well as a geotechnical analysis; a feasibility/alternatives task that will be completed by a Value Planning Study; a reach-scale conceptual design task; and a project-scale conceptual design task. Implementation of this project will lead to future design phases and eventually implementation of a restoration project that could provide access to important, currently disconnected, habitat, as well as improve existing habitat in the Wenatchee River.

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.

Significant human infrastructure including the Burlington Northern railroad, Highway 2, fruit orchards, homes, and towns along the lower Wenatchee River have severely impaired instream and off-channel habitat and watershed processes throughout the lower 20 miles of the river. U.S. Highway 2 bisects and disconnects a considerable portion of the floodplain within the project area. Within Reach 43% of the floodplain is disconnected.

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

This project occurs in the Wenatchee River – Nahahum Canyon Assessment Unit (AU). This AU is ranked as a Tier 2 for Steelhead Restoration and Tier 3 for Spring chinook restoration. For both spring chinook and steelhead the “Winter Rearing” life stage is a “High Priority” and “Smolt Emigration” is a “Medium Priority”. Both of these life stages are addressed through implementation of this project. In the Nahahum 04 reach the following Rank 1 (unacceptable) limiting factors could be addressed through implementation of this project: Bank Stability, Channel Stability, Cover- Wood, Riparian-Canopy Cover, Temperature- Rearing. The following Rank 2 (at risk) limiting factors could be addressed through implementation of this project: Floodplain connectivity, Off-Channel- Side-Channels, Pool quantity and quality, Riparian.

#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 design proposal has the following goals:

1. Evaluate ways to improve floodplain connectivity to the North side of HWY 2
2. Create a reach-scale blueprint to guide restoration actions from RM 2.75-4.5
3. Create a design that increases summer and winter rearing habitat for juvenile salmonids
4. Create a design that address rank 1 and rank 2 limiting factors for the project reach

#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 proposal has the following objectives:

1. Within 6 months of funding complete a background data/literature review for the project area.
2. Within 6 months of funding gather existing lidar and bathymetric lidar. Collect ground-based topographic data
3. Collect groundwater data from at least 5 sites for at least 18 months.
4. Conduct 1 geotechnical study of the highway 2 prism within 1 year of funding
5. Conduct 1 Value added planning study within 1 year of funding
6. Create existing conditions hydraulic models to inform conceptual designs within 18 months of funding
7. Create a reach-scale conceptual design or blueprint to guide restoration activities from RM 2.75-4.5 within 2 years of funding
8. Create a project specific design that encompasses willing landowners and details how project fits into the larger blueprint for the reach within 2 years of funding.

#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 the following tasks:

1. Data Collection: CF will lead and coordinate the effort to collect data and information that will aid in the development of designs. The following data/information will be collected:

- Background data/Lit Review: CF and/or a hired consultant will collate existing literature and information about the site. This will include coordination with local fish biologists and restoration experts.
- Topographic: Existing lidar and bathymetric Lidar exists for the project site. These data will be gathered from DNR. Ground based topographic data will be collected by total station or satellite based equipment and integrated into the lidar data to create an accurate surface representation of existing conditions.
- Groundwater: At least 5 groundwater wells with data logging piezometers will be installed on floodplain areas within the project area. Groundwater data will be used to inform future side channel and floodplain engagement design, as well as define potential biological benefits of these features.
- Geotechnical: A preliminary geotechnical analysis will be preformed on the WSDOT HWY2 right of way. This analysis will inform potential options for getting water and fish to the north side of HWY 2.

2. Value Planning Study: CF will lead the effort to complete a Value Planning Study for the project reach. Value added planning is used to evaluate the economic feasibility and biological benefit of different project alternatives. This involves comparing the costs and benefits of each option, considering factors like engineering, challenges, complexity, and ecological uplift. The Value Methodology is a systematic and organized way to develop and compare alternatives that will get the job done (provide all the essential functions) with the greatest value (greatest efficiency, economy, quality, and the least delay).

3. Reach Scale Conceptual Design: CF will coordinate with a licensed engineering consultant to create a conceptual design that will cover the entire project area from RM 2.75 - 4.5. Hydraulic models will be developed to inform the design. This concept will serve as a large-scale blueprint for potential restoration actions possible in this reach if/when landowner willingness is obtained. The reach-scale design will be based off of the results of the Value planning study and the data collected in #1. The design will identify smaller project components that can be broken off into phases.

4. Project-specific conceptual design: A conceptual design will be developed specific to landowners willingness. At the time of project proposal this includes WSDOT, WDFW, and WA DNR. However, landowner outreach and engagement will continue throughout the project. Hydraulic models will be developed to inform the design. The project-specific design will include a design report that describes how the project fits into the larger reach-scale design and can be built upon at a later date.

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

Physical constraints about in this project area. They include US Hwy 2, the BNSF railway, and a dozen private landowners. A key component of this proposal is the Value Planning Study which will look at how to creatively design restoration actions within these constraints in an ecologically feasible way.

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

CF learned of the Value Planning Study from a recently completed effort by CCNRD on Peshastin Creek 8.8, which has similar infrastructure related constraints to our project.

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

The only alternative is to do nothing in this reach. Based on NOAA's 2022 status review, both UC spring chinook and UC steelhead are still at high risk of extinction. To start moving the needle we need to tackle these harder infrastructure related projects.

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

WSDOT, WDFW and WA DNR have been consulted regarding the development of this project. At this point primary concerns are related to public safety and protection of existing infrastructure. These elements will be incorporated into planning and designs.

#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 design will incorporate the predicated changes in hydrology to ensure that project elements and surrounding infrastructure and private lands are resilient to potential future flood flows.

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

The project design will incorporate features to assist ESA-listed species with adapting to climate change, such as groundwater connected side channels, restoring riparian vegetation, and improving floodplain function.

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

CF has lead the design process on several large restoration projects in the past. Recent examples include Merritt Oxbow Reconnection, Lower Peshastin Restoration, Peshastin 2.5, Chiwakum Creek Restoration, the Silver Side-Channel, and Hancock Springs Restoration. CF is new to the Value Planning Study approach.

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

No

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?
No

Planning Metrics

Worksite: Wenatchee RM 2.75 - 4.5 (#1)

Area Encompassed (acres) (B.0.b.1)	175.0
Miles of Stream and/or Shoreline Affected (B.0.b.2)	1.75

DESIGN FOR SALMON RESTORATION

Conceptual Design (B.1.b.11.a RCO)

Total cost for Conceptual design	$40,000
Project Identified in a Plan or Watershed Assessment. (2457) (B.1.b.11.a)	Lower Wenatchee Reach Assessment (Terta Tech 2017) - Project Area 11
Priority in Recovery Plan (2458) (B.1.b.11.b)	Tier 1, highest overall score within reach assessment

RESTORATION PLANNING AND COORDINATION PROJECT

Conducting habitat restoration scoping and feasibility studies (B.1.b.8)

Total cost for Conducting habitat restoration scoping and feasibility studies	$100,000
Project Identified in a Plan or Watershed Assessment (B.1.b.8.a)	Lower Wenatchee Reach Assessment (Terta Tech 2017) - Project Areas 7-11
Priority in Recovery Plan (B.1.b.8.b) (1211)	Ranging from tier 1 to tier 3
Name and Description of Plan (2299)	Reach assessment completed by Tetra Tech and commissioned by the Yakama Nation

CULTURAL RESOURCES

Cultural resources

Total cost for Cultural resources	$7,500
Acres surveyed for cultural resources	40.00

AGENCY INDIRECT COSTS

Agency Indirect

Total cost for Agency Indirect	$2,500

Overall Project Metrics

COMPLETION DATE

Projected date of completion	12/01/2027

Planning Cost Estimates

Worksite #1: Wenatchee RM 2.75 - 4.5

Category	Work Type	Estimated Cost	Note
Agency Indirect Costs	Agency Indirect	$2,500	
Cultural Resources	Cultural resources	$7,500	
Design for Salmon restoration	Conceptual Design (B.1.b.11.a RCO)	$40,000	
Restoration Planning And Coordination Project	Conducting habitat restoration scoping and feasibility studies (B.1.b.8)	$100,000	
	Subtotal:	$150,000	
	Total Estimate For Worksite:	$150,000	

Summary

Total Estimated Costs:	$150,000
Total Estimated Planning Costs:	$150,000

Project Application Report - 25-1212

Cost Summary

	Estimated Cost	Project %	Admin/AA&E %
Planning Costs			
Planning	$150,000		
SUBTOTAL	$150,000	100.00 %	
Total Cost Estimate	$150,000	100.00 %	

Funding Request and Match

FUNDING PROGRAM

Salmon State Projects	$150,000	100.000000

SPONSOR MATCH

Questions

#1: Explain how you determined the cost estimates

Cost estimates based on CF staff estimates and experience. Design costs based on recent design efforts, with additional added funds to account with the site complexity including the HWY 2. Costs for the Value Planning Process were derived from a recent effort completed by the USBOR and CCNRD at the Peshastin RM 8.8 project. CF staff salaries assumed to increase over time due to step increases and COLA adjustments.

Other Funding

OTHER FUNDING DETAILS

Other Funds: Monetary Funding	Local Grant	
Amount		$150,000 **Note:** Applying concurrently
Funding Organization		HCP Tributary Committees
Grant Program		HCP Mitigation funds
	Other Funding Detail Total:	$150,000

Cultural Resources

Cultural Resource Areas

Worksite #1: Wenatchee RM 2.75 - 4.5

Area: Uploaded APE

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

Ground disturbance for planning work is expected to consist of preliminary geotechnical investigation, and installation of groundwater monitoring wells.

#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).

Much of the APE consists of the existing HWY 2 road prism. The remainder is floodplain surface, both on the river side and the other side that is disconnected from the river.

#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?

Unknown

#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.

US highway 2 was originally constructed in the 1950s

Project Permits

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

Attachments

Required Attachments	7 out of 7 done
Applicant Resolution/Authorizations	✓
CCA Tribal Notification	✓
Cost Estimate	✓
Landowner acknowledgement form	✓
Map: Planning Area	✓
Photo	✓
RCO Fiscal Data Collection Sheet	✓

PHOTOS (JPG, GIF)

Photos (JPG, GIF)


666725


666726

PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	04/18/2025	Application Document	Wenatchee-RM-2.75-4.5-Feasibility-and-Conceptual-Design-UC R	AaronR	Wenatchee-RM-2.75-4.5-Feasibility-and-Conceptual-Design-UC Regional application 041825.pdf, 666734	✓
	04/18/2025	Cost Estimate	25-1212-SAL-CostEstimate-041825.xlsx	AaronR	25-1212-SAL-CostEstimate-041825.xlsx, 666732	✓
	04/18/2025	Photo	20250323_164750.jpg	AaronR	20250323_164750.jpg, 666726	✓
	04/18/2025	Photo	20250323_164737.jpg	AaronR	20250323_164737.jpg, 666725	✓
	04/18/2025	Map: Planning Area	Project_map_georef.pdf	AaronR	Project_map_georef.pdf, 666723	✓
	04/18/2025	Landowner acknowledgement form	Placeholder - SAL-LandownerAckForm - 25-1212.docx	AaronR	Placeholder - SAL-LandownerAckForm - 25-1212.docx, 666717	
	04/18/2025	RCO Fiscal Data Collection Sheet	FiscalDataCollectionSheet - Cascade Fisheries - 2025.pdf	AaronR	FiscalDataCollectionSheet - Cascade Fisheries - 2025.pdf, 666716	
	04/18/2025	CCA Tribal Notification	Draft-CCA-TribalNotice.docx	AaronR	Draft-CCA-TribalNotice.docx, 666715	✓
	04/18/2025	Applicant Resolution/Authorizations	ApplicantAuthorizationResolution - Cascade Fisheries - 2025.	AaronR	ApplicantAuthorizationResolution - Cascade Fisheries - 2025.pdf, 666714	✓

Application Status

Application Due Date: 06/23/2025

Status Name	Status Date	Submitted By	Submission Notes
Application Submitted	04/18/2025	Aaron Rosenblum	
Preapplication	04/02/2025		

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. (Aaron Rosenblum, 04/18/2025)

Date of last change: 04/18/2025

DESIGN PROJECTS

The costs on this page are for design projects, not for the design phase of a restoration grant.

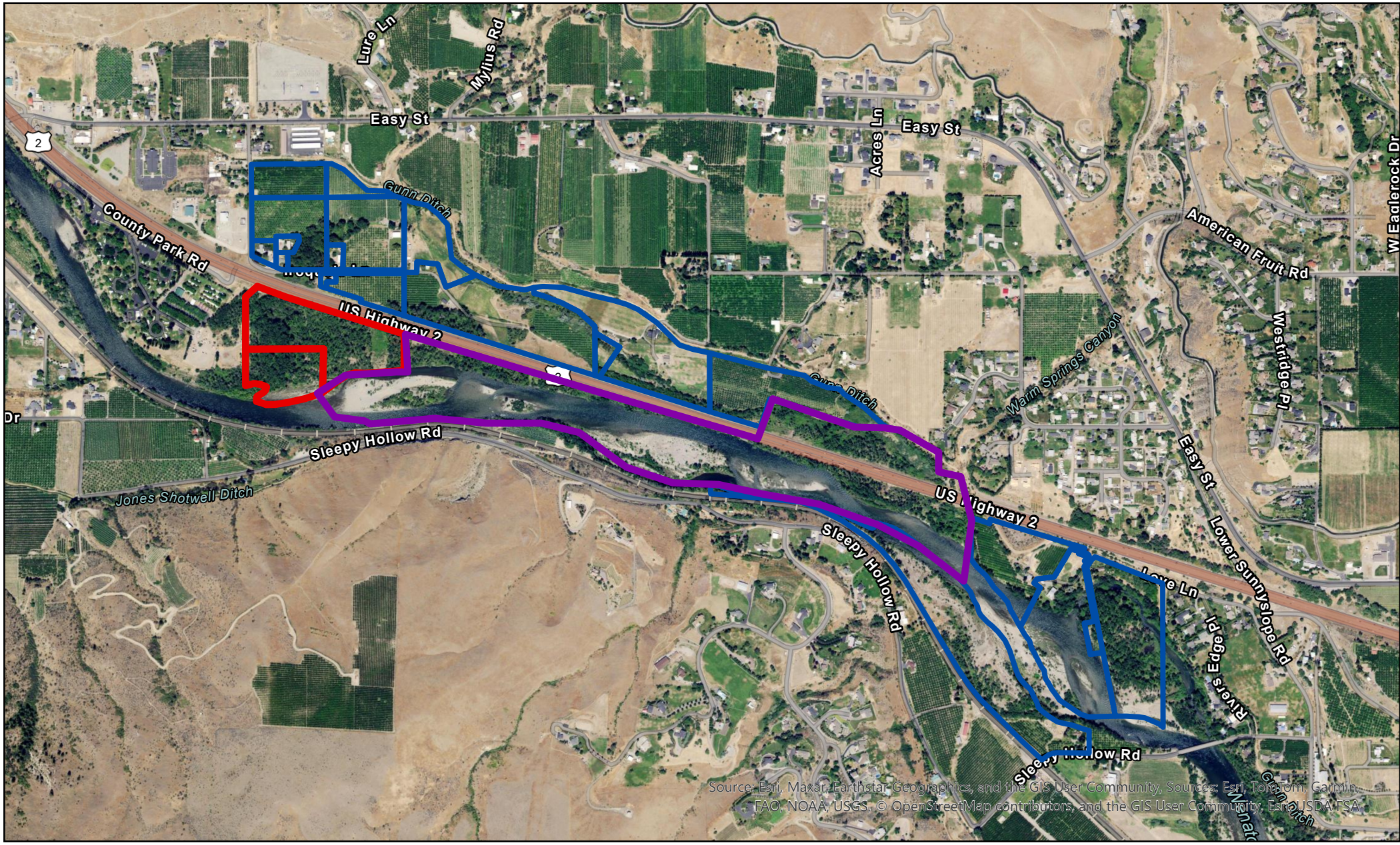
				OVERALL PROJECT	GRANT REQUEST	MATCH			
				Budget must account for all costs to complete the project	*Enter only the amount of the grant request*	*The Grant Request and Match should equal the total project cost and Budget Check cell should be 0. Sponsors must account for all sources and types of match need to complete the project.*			
				Amount	Grant Amount	Match in PRISM	Funding not reported in PRISM	Source (Grant, Cash, Materials, Labor, Volunteers, etc)	Match Type (federal, state, local)
Design Costs									
Category	Task Description	Qty	Rate						
Administrative	*CF staff admin, billing, etc*	**1.00**	$ 8,000.00	$ 8,000	$ 8,000	$ -	$ -		
Data collection	*CF staff, geotechnical, engineering*	1.00	$ 60,000.00	$ 60,000	$ 30,000	$ -	$ 30,000		
Cultural resources	*CR consultant*	1.00	$ 15,000.00	$ 15,000	$ 7,500	$ -	$ 7,500		
Other	*Value Planning study Consultants and CF staff*	1.00	$ 112,000.00	$ 112,000	$ 56,000	$ -	$ 56,000		
Conceptual design	*Reach Scale Design - CF staff and consultant*	1.00	$ 50,000.00	$ 50,000	$ 25,000	$ -	$ 25,000		
Conceptual design	*Project Specific Design - CF staff and consultant*	1.00	$ 50,000.00	$ 50,000	$ 21,000	$ -	$ 29,000		
Other	*Indirect at 15% of CF salaries and benefits*	1.00	$ 5,000.00	$ 5,000	$ 2,500	$ -	$ 2,500		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			$ -	$ -	$ -	$ -	$ -		
			STotal	**$ 300,000**	**$ 150,000**	**$ -**	**$ 150,000**		
Indirect Costs				Amount	Grant amount	Match in PRISM	Funding not reported in PRISM	Match Source	Match Type (federal, state, local)
	Description	Approved Rate	Total Project Base						
	Indirect	0.000%	$ -	$ -	$ -	$ -	$ -		
	Indirect	0.000%	$ -	$ -	$ -	$ -	$ -		
			STotal	**$ -**	**$ -**	**$ -**	**$ -**		
			Totals	**$ 300,000**	**$ 150,000**	**$ -**	**$ 150,000**		

CUMULATIVE TOTALS

This sheet contains automatic calculations

Project Name	Wenatchee RM 2.75 - 4.5 Feasibility and Concept Design
SRFB #	25-1212
Sponsor	Cascade Fisheries

	OVERALL PROJECT Cost	GRANT REQUEST Amount	PRISM MATCH Amount	MATCH NOT IN PRISM Amount	*Budget Check*
Sheet #1 Acquisition					
Property Costs	$ -	$ -	$ -	$ -	0
Incidental Costs	$ -	$ -	$ -	$ -	0
Administrative Costs	$ -	$ -	$ -	$ -	0
Indirect Costs	$ -	$ -	$ -	$ -	
STotal	$ -	$ -	$ -	$ -	0
Sheet #2 Design					
Design Costs	$ 300,000	$ 150,000	$ -	$ 150,000	
Indirect Costs	$ -	$ -	$ -	$ -	
STotal	$ 300,000	$ 150,000	$ -	$ 150,000	0
Sheet #3 Restoration					
Construction Costs	$ -	$ -	$ -	$ -	0
AA&E	$ -	$ -	$ -	$ -	0
Indirect Costs	$ -	$ -	$ -	$ -	
STotal	$ -	$ -	$ -	$ -	0
Totals	$ 300,000	$ 150,000	$ -	$ 150,000	0



Legend

- WA State Landowners
- Chelan County Parcels
- Private Landowners

Wenatchee RM 2.75 - 4.5 Feasability and Conceptual Design Project Area

N

0 0.17 0.35 0.7 Miles

CASCADE FISHERIES

Project site from highway