



Contact Information

2024 Upper Columbia Regional Project Pre-Application

* Pre-applications due March 11, 2024 (COB)

*Complete applications due in PRISM April 19, 2024 (COB)

*Revised proposals due in PRISM May 24, 2024 (COB)

*Final revised applications due in PRISM June 24, 2024 (noon)

Project Title	Riparian Restoration @ Twisp Ponds
Sponsor	MSRF
Primary Contact	Jessica Goldberg
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Budget Request

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

Anticipated Request - SRFB (standard round)	\$
Anticipated Request - SRFB Riparian Funding	\$218,550
Anticipated Request - Targeted Investment	\$
Anticipated Request - Tributary Committee	\$
Anticipated Request - BPA Programmatic	\$
Anticipated Other Funding	\$
Anticipated TOTAL Budget	\$218,550

Other Funding Source(s)

None

Project Location

Briefly describe the location of the project

This project is located in the Twisp River Lower 02 reach and within Reach T2a of the 2010 Lower Twisp River Reach Assessment. The project extends from approximately RM 1.0 - 1.5 and includes approximately 27 acres of adjacent riparian and floodplain habitat and a series of ponds and channels that have been the site of on-going restoration since 2002.

Latitude (decimal degrees)

48.3673

Longitude (decimal degrees)

-120.1396

Project subbasin

Methow

Methow Assessment Unit(s)

Lower Twisp River

Does the proposed project span multiple assessment units?

No

List the additional assessment units directly impacted by this proposal.

X

Reach(es) Name

Twisp River Lower 02

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.ucsr.org/>.

Rank 2

Project Information

1. What are the project objectives? Objectives support and refine biological goals, breaking them down into small steps. Objectives are specific, quantifiable actions 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 project will create a riparian buffer between a county road and three large ponds, increase pond shading to mitigate solar gain and reduce water temperatures through riparian plantings, and increase habitat complexity and diversity for juvenile salmonids at an off-channel site in lower Twisp River between river miles 1.0-1.5. The project site is located at Methow Salmon Recovery Foundation's Twisp Ponds restoration site, an off-channel system consisting of five ponds and channels, which provides high quality spawning and rearing habitat for UCR spring chinook, UCR steelhead, and other species.

Project goals:

- 1) Increase a riparian buffer between Twisp River Road and the ponds, increasing shade and reducing water temperature.
- 2) Increase habitat complexity and diversity for juvenile salmonid rearing within the ponds.

Project objectives:

- 1) Increase the riparian buffer between Twisp River Road and the three middle ponds through benches constructed with a high volume of woody material, encased in soil, and planted with approximately one acre of riparian vegetation for pond shading and complex nearshore habitat, completed and with plantings established within five years of funding. The riparian plantings will mitigate solar gain and increased water temperature of the ponds.
- 2) Place additional woody structure within the ponded habitats to increase habitat complexity for juvenile summer and winter use.

Twisp Ponds provides off-channel rearing habitat in an otherwise constrained reach of the lower Twisp River. Target fish species, including spring Chinook, steelhead, and coho rear in the network of connected side channels and pond habitats. Since the site was acquired by MSRF in 2002, a series of restoration activities have improved connectivity between the Twisp River and the series of five ponds and channels that make up the site. However, a lack of in-pond habitat complexity and shading persists, and is likely a result of the initial project design. Increasing site complexity, improving edge habitat, and pond shading will increase high quality rearing habitat in deep-water pool habitat to benefit ESA listed fish species throughout the Twisp Ponds site.

Currently the surface water supply to the ponds and channels is provided by a surface water diversion at RM 1.5. Surface water flows are routed through a narrow single thread channel from the diversion to the uppermost pond. Connections between each of the remaining ponds, and to the Twisp River, are also through relatively narrow single thread channels. There are currently two outflow channels to the mainstem Twisp River at the downstream end of the project site.

2. What species will the project benefit?

- Spring Chinook
- Steelhead
- Bull Trout
- coho, Pacific lamprey

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

- Instream Habitat (Includes Floodplain & Off-Channel Reconnection)
- Riparian Habitat

Acquisition, Easements, Leases: Reporting Code

- Miles of streambank and/or Shoreline Protected by Land or Easement Acquisition
- Acres by Acreage Type (easement) and/or Acres by Acreage Type (fee simple)
- Floodplain Areas Protected** this reporting metric does not appear in PRISM. Work with the LE to ad this metric upon completion of project.

Instream Habitat: Reporting Code

- Total miles of instream habitat treated

Miles of off-channel stream created or connected

Acres of channel/off-channel connected or added

Number of structures placed in channel

Riparian Habitat: Reporting Code

Total riparian miles streambank treated

Total riparian acres treated

Water Quality: Reporting Code

Total acres feet of water treated for water quality

Miles of stream treated with nutrients

Water quality limitation treated

Wetlands: Reporting Code

Acres of wetland improvement/enhancement

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

Don't Know

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

No

6. What category is the project?

Restoration

If applicable, what is the secondary project category?

N/A

Is the project eligible for Riparian Funding?

Yes

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)?

Yes. Lower Twisp River Reach Assessment, June 2010. Prepared by Interfluve for Yakama Nation Fisheries Program

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

Cover - Wood

Off-Channel - Floodplain

Off-Channel - Side-Channels

Riparian

Riparian - Canopy Cover

Riparian - Disturbance

Riparian - Structure

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 project will result in increased summer and winter juvenile salmonid survival by improving riparian habitat and reducing water temperatures. The project increases the site's capacity to support rearing juvenile fish and distribution of juveniles through increased habitat complexity.

Each of the proposed actions would create opportunities for increased use by resident fish species and non-target species, such as Pacific lamprey and coho salmon. The project currently supports a robust population of deer, bear, beavers, river otters, water birds, and birds of prey. The actions proposed by this project will increase the complexity of habitat for each of these species and support the coexistence of target fish species and beavers at this site.

Additional Space for #11 *Freshwater Benefits

placeholder text

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?

This project will be designed to be consistent with natural processes and site and reach scale geomorphology. The placement of woody structures within the ponds will generate cover for salmonids while preserving deep cold-water habitat.

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

1-10 years

10-25 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?

Development of an adaptive management plan for the site is a key component of this project. New riparian plantings will be maintained for at least five years. Because the entire project is on property owned by Methow Salmon Recovery Foundation, access for maintenance is assured.

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

Increasing the distance between the county road and pond habitat by creating a bench of woody material, soil, and riparian plantings will improve pond and edge habitat and species biodiversity, as well as increasing shade to the ponds. Adding woody structure to the pond's system will increase habitat complexity for summer and winter rearing juvenile salmonids. Narrowing three of the ponds to provide a riparian planting bench will increase shade to the existing ponds, reducing solar gain and summer stream temperatures to improve juvenile rearing habitat.

17. If the project is eligible and applying for Riparian Funding, does the project have in-stream components? If so, briefly describe those components, how they support riparian plant survival and/or natural regeneration, and why they are necessary for the success of the riparian habitat elements of the project.

Yes, this project contains in-stream components. A raised bench created along the southern edge of the ponds will be planted with riparian vegetation, increasing shade to the ponds, reducing instream temperatures, and increasing the riparian buffer between Twisp River Road and the ponds.

Assessment Proposals

Protection Proposals

Monitoring Proposals

Project Risk and Economic Benefits

1. What is the landownership? Private

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

Please explain

Methow Salmon Recovery Foundation owns the parcels where the restoration actions will take place. MSRF holds an easement to access the upstream property and maintain the headgate area and has support from the landowner for the proposed restoration efforts.

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

Actions will be designed to decrease risk to the existing infrastructure within the site. Planting benches in ponds 2-4 will increase the buffer between the county road and the ponds. WDFW currently utilizes an access road through the property to maintain a rotary screw trap and PIT antenna system on the adjacent mainstem Twisp River. Site access for WDFW employees and infrastructure will be maintained in project design. MSRF maintains a trail system open to the public on the downstream end of the property, which will not be impacted by project implementation.

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

Project design will not impact current recreational trail access to the site, will maintain WDFW's site access to their screw trap, and MSRF will consult with adjacent landowners on site improvements prior to construction. There is no impact to recreational river users.

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

The Methow Salmon Recovery Foundation and the Methow Beaver Project will be responsible for adaptive maintenance of 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 project carries a very low risk of failure. MSRF has successfully maintained the ponds site for more than 20 years. By owning much of the underlying property, much of the risk associated with changing landowner requirements is mitigated.

The project will be designed with wood structures intended and designed primarily to provide habitat, cover, and shading, and will be placed well out of the main river channel.

There is very low risk to downstream/adjacent properties as flow discharge into the ponds system is low.

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

Yes, project activities will include posting signage explaining the purpose of the project, the construction phases, as well as a specific list of native vegetation utilized in the project. The Twisp Ponds site is viewed as a valuable community asset and is used by a large number of individuals and groups as a destination for walking, bird watching and gatherings. Signage and art installations currently engage visitors and highlight salmon recovery projects throughout the Methow Valley and serve to increase community support for salmon recovery efforts.

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

Yes, this project will directly employ local and regional contractors to complete most aspects of the project assessment, design, and future management. MSRF has built an approved roster of qualified local and regional contractors and prioritizes local contractor preference when possible. MSRF has implemented restoration actions in the Methow Valley for more than 20 years, and the majority of our awarded contracts have been directed to local and regional contractors with consistently high-quality results. Our findings are supported by an economic analysis completed by UCSRB that showed that funds spent on restoration projects cycle through the local community 4 to 7 times, significantly multiplying the local economic benefit.

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

This project will be led by MSRF staff who bring a breadth and depth of strengths to the project, including expertise in restoration ecology, community outreach, and engagement, permitting, and project management. MSRF has been actively engaged in habitat restoration in the Methow Valley since 2001 and has successfully served as a project sponsor for many restoration projects in the watershed. The Methow Beaver Project (MBP) was founded in 2008 and became a program of MSRF in 2014 and brings a wealth of beaver coexistence experience and strategies required to manage beavers in modified systems like Twisp Ponds.

Optional Section - Preparation for PRISM

The following questions are identical to the questions RCO requires in the PRISM application. If desired, sponsors can complete associated questions early and copy responses into PRISM during the "Complete Application" phase due on April 19, 2024.

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

Supporting Documents

[Upper Columbia Process Guide 2024](#)

[SRFB Manual 18 \(2024\)](#)

[RCO Application Resources \(2024\)](#)