



Contact Information

2026 Upper Columbia Regional Project Pre-Application

* Pre-applications due March 11, 2026 (COB)

*Complete SRFB applications due in PRISM April 17, 2026 (COB)

*Revised SRFB proposals due in PRISM May 27, 2026 (COB)

*Final revised applications due in PRISM June 22, 2026 (noon)

Project Title	MacPherson Flats Acquisition
Sponsor	Methow Salmon Recovery Foundation
Primary Contact	Camden Shaw
E-Mail Address	camden@methowsalmon.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 proposed acquisition of the MacPherson Flats property would allow for a substantially developed floodplain to be restored to its natural condition allowing for side channel and floodplain restoration, including removal of an existing flood levee, buildings and roads, adjacent protected public land.

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 objective is to remove the existing private development that prevents the MacPherson side channel from functioning as a perennial floodplain and side channel. This project seeks to acquire and protect an 8.7 acre parcel adjacent public land along the Chewuch River. The parcel includes an existing home site and commercial excavation and trucking yard and shop adjacent to WDFW land and Okanogan National Forest. The property includes approximately 680 feet of the 3,500' long MacPherson side channel

that is fed by the Skyline diversion intake from the Chewuch River as a year-round side channel. The acquisition would remove all buildings and provide permanent protection necessary to restore and maintain this section of the MacPherson side channel and connected floodplain for anadromous fish use.

Budget Request

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

Anticipated Request - SRFB 587,063

Anticipated or Actual Other Funding 195,688

Anticipated TOTAL Budget 782,750

Other Funding Source(s), please note if funding is anticipated or actual.

MSRF is planning to request the other funding from PRCC

Project Location

Briefly describe the location of the project This proposed acquisition is located at Chewuch RM 7.7 within Chewuch River Pearrygin 08

Latitude (decimal degrees) 48.56811

Longitude (decimal degrees) 120.17680

Project subbasin Methow

Methow Assessment Unit(s) Chewuch River-Pearrygin Creek

Does the proposed project span multiple assessment units? No

Reach(es) Name Chewuch River Pearrygin 08

Identify the reach(es) priority/ reach ranking. Note: If the project involves work in multiple reaches, select "Multiple" and include details in the text box that will appear below. Please reference the Prioritization Web Map: <https://prioritization.ucsrb.org/>. Rank 3

Project Information

1. What species will the project benefit? Spring Chinook Steelhead Bull Trout

2. Select the project's objectives and the associated tracking metrics Acquisition, Easements, Leases

**Acquisition, Easements, Leases:
Reporting Code**

Acres by Acreage Type (easement) and/or Acres by Acreage Type (fee simple)

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?

Protection

If applicable, what is the secondary project category?

N/A

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 Chewuch Reach Assessment

Assessment Proposals

Protection Proposals

7. What type of protection are you proposing?

Fee Simple

8. Is this protection project associated with a current or future restoration project?

Yes

9. Placement - Does the project protect important high quality habitat and/or watershed processes and to what degree

Yes, this project would permanently protect approximately 680 feet of perennial side channel along the Chewuch River. The project protects floodplain reconnection, riparian restoration and side channel and off-channel habitat, which are all actions identified in the 2025 Lower Chewuch Reach Assessment to address unacceptable and at-risk conditions.

The project is located downstream of an upgraded irrigation delivery project (Skyline) that was completed in 2025. That project eliminated the risk of fish stranding in past irrigation infrastructure ensuring safe passage to and from the Chewuch River year round in the MacPherson side channel that crosses the MacPherson Flats property. Removing the home and infrastructure along the side channel will allow for significant riparian planting and encourage natural regeneration of cottonwood, pine and riparian shrub species on 20% of the side channel length and on the 8.7 acre floodplain.

10. Freshwater Benefit - What would be the anticipated loss in survival, capacity or distribution for target species at the reach scale if the proposed area is not protected?

This project would result in permanent protection of approximately 680 feet of a Chewuch River perennial side channel controlled by a flood levee that also burned in the Cub Creek fire (2021). By not protecting this area and removing the infrastructure, natural riparian regeneration and future restoration opportunities along the side channel and floodplain would be restricted. Reduced survival of target species on the MacPherson Flats property could be high due to reduced side channel health for summer and winter rearing specifically. Spring Chinook, Summer Steelhead and Bull Trout all use the Lower Chewuch river year round. Spring Chinook summer and winter rearing rank high in the life stage ranking in the 2025 Lower Chewuch Reach Assessment. The reach also supports a diverse aquatic food web that supports ESA listed species.

11. Threat - How imminent is the threat of habitat degradation to the proposed land if the project is not implemented?

The floodplain property, including the side channel, is managed by the landowners for access and human use including a commercial shop, equipment yard and landscaping. The site use has resulted in on-going degradation based on the required flood levee and the heavy commercial use. After the Cub Creek fire in 2021, many of the mature pine and cottonwood trees along the side channel and throughout the floodplain were burned and are subsequently falling over. Without removing the home and commercial business infrastructure, the riparian trees and shrubs will not be able to fully revegetate the property and maintain a functioning riparian along the side channel and on the floodplain.

12. Conditions - Briefly describe if there are any conditions regarding the protection of the property that could limit the protection benefits

The only condition that would limit the protection of the property would be the cost to remove the home and infrastructure necessary to revegetate and allow for natural regeneration of the floodplain. The property is surrounded by state and federal land, ensuring its long term protection. Restoration is limited to site clean up, home removal and targeted planting where natural regeneration is compromised from years of human impacts.

13. Will there be public access?

Yes

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

Chris Johnson was contacted by the landowner to ask if the Methow Salmon Recovery Foundation would be interested in acquiring the property for protection.

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

There are no landowner requirements to the acquisition.

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, this project is unlikely to raise potential concerns with any interest group of the community at large. This project compliments two decades of work accomplished by the Skyline ditch company, Methow Salmon Recovery Foundation, WDFW, USFWS and BOR to protect side channel habitat for endangered

species on the Chewuch River.

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

Methow Salmon Recovery Foundation will be responsible for land management.

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

Yes

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

There is no risk of failure associated with this project.

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

There is no public outreach planned during acquisition. After the property is acquired the restoration efforts and clean up of the property would be a significant opportunity to show the public the ecological and community benefits to floodplain restoration and protection.

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

It is anticipated that future restoration will be developed following acquisition to take advantage of the opportunities identified in the reach assessment. All future restoration actions, including removal of the infrastructure, will use local sub contractors to increase economic benefits from state and federal restoration dollars circulation within the local and regional economy. The project also allows for public access to the Chewuch River from the county road giving recreational users access to the riparian forest.

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

Chris Johnson, the executive director of MSRF, has had a personal relationship with the MacPherson Flats property owners for two decades. The Skyline ditch company, which diverts irrigation water just upstream, is working with MSRF to secure funding for more upgrades to their irrigation delivery infrastructure and is currently completing an upgrade of 6,000 feet of new pipe and replacing a wooden trestle with a new bridge across Cub Creek with funding from USFWS and PRCC. In 2025, WDFW, BPA, and PRCC funded a project that successfully improved the fish screen and 600' of irrigation delivery, eliminating the risk of stranding salmonids after ditch shutdown.

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 x, 2026

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

No

Supporting Documents

[Upper Columbia Process Guide 2026](#)

[SRFB Manual 18 \(2026\)](#)

[RCO Application Resources](#)

PROJECT: 26-1639 ACQ,REST, MACPHERSON FLATS ACQUISITION

Sponsor: Methow Salmon Recovery Found Program: Salmon State Projects Status: Application Submitted

Parties to the Agreement

PRIMARY SPONSOR

Methow Salmon Recovery Foundation

Address PO Box 755

City Twisp **State** WA **Zip** 98856-0755

Org Type Non-Gov-Nonprofit

Vendor # SWV0091539-00

UBI 602134958

Date Org created

Org Notes

[link to Organization profile](#)

Org data updated

QUESTIONS - PRIMARY SPONSOR

#1: What date was your organization created?

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

Yes

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

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

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

Yes

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

No

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

Project Application Report - 26-1639

SPONSOR ASSIGNED INFO

Sponsor-Assigned Project Number

Sponsor-Assigned Regions

LINK AN EXISTING SRP PROJECT

Unlink

26-1639, MacPherson Flats Acquisition, Salmon State Proc

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
Camden Shaw Methow Salmon Recovery Found	Project Contact	(509) 341-4133	camden@methowsalmon.org
Brian Fisher Methow Salmon Recovery Found	Alt Project Contact	(509) 429-4928	brian@methowsalmon.org
Jessica Goldberg Methow Salmon Recovery Found	Alt Project Contact	(360) 624-3592	jessica@methowsalmon.org
Chris Johnson Okanogan City of	Agreement	(509) 429-1232	Chris.J@methowsalmon.org
Ariel Edwards Upper Columbia Salmon Rcy Bd L	Lead Entity Contact	(208) 540-2691	ariel.edwards@ucsr.org
Katy Williams Methow Salmon Recovery Found	Billing	(509) 433-8880	katy@methowsalmon.org
Marlene Fuchs Methow Salmon Recovery Found	Billing	(541) 231-0813	marlene@methowsalmon.org

Worksites & Properties

Worksite Name

#1 MacPherson Flats

Acquisition	Restoration	Property Name
✓	✓	Delange

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Worksite Map & Description

Worksite #1: MacPherson Flats

WORKSITE ADDRESS

Street Address 702 Eastside Chewuch Rd
City, State, Zip Winthrop WA 98862

Worksite Details

Worksite #1: MacPherson Flats

SITE ACCESS DIRECTIONS

From the 4-way stop in Winthrop, WA: take Bridge Street towards Castle Avenue for 0.2 Miles. Turn right onto Bluff Street for 0.4 Miles, then continue onto E Chewuch Rd for 5.8 miles. Veer to the left to stay on the Eastside Chewuch Rd, cross the Chewuch River, then turn right onto NF-51/ Eastside Chewuch Rd for 0.3 miles. The destination is on the right.

TARGETED ESU SPECIES

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

Reference or source used

2022 5-Year Review: Summary & Evaluation of Upper Columbia River Spring-run Chinook Salmon and Upper Columbia River Steelhead (NMFS 2022)

TARGETED NON-ESU SPECIES

Species by Non-ESU	Notes
Bull Trout	Migratory adults and sub-adults; population trend declining. USFWS designated FMO habitat.
Lamprey	Pacific lamprey larvae, potentially adults and eggs. Population possibly declining.

Questions

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

702 Eastside Chewuch Rd, Winthrop, WA 98862

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Project Location

RELATED PROJECTS

Projects in PRISM

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

Related Project Notes

Questions

#1: Did this project originate from the Shore Friendly program?

No

#2: 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.

The MacPherson flats property is located on the Chewuch River (RM 7.7) within the Chewuch River Pearygin 08 and Chewuch River Pearygin 07 reaches. The property is approximately 7 miles north of Winthrop at 48.56811 N / -120.17680 W in Section 02, Township 35N, Range 21E. The property is bordered by WDFW property on the East, West and South and the USFS to the North. The floodplain property supports a functioning perennial side channel of the Chewuch River and a heavily managed riparian forest.

#3: 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.

Restoration and protection in the Pearygin Creek Assessment Unit includes Tier 1 for restoration and protection of Spring Chinook. For Steelhead Tier 1 for Restoration and Tier 3 for protection, and for Bull Trout Tier 2 for restoration and Tier 3 for protection. High priority life stages for Spring Chinook include summer and winter rearing. Priority actions include restoring reach function and addressing limiting factors. Unacceptable limiting factors include Cover-Wood, Temperature-rearing. Priority actions the property acquisition would help address include riparian restoration and management, side channel and off channel habitat restoration and water quality improvement. UCSRB Prioritization Web Map 2021

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

Yes

#4a: How does this project fit into the sequencing of the larger project?

The project is informed by the updated Chewuch River Reach Assessment objectives to engage floodplain surfaces and support habitat for ESA listed species. The project also builds off nearly 20 years of work to enhance habitat conditions in the McPherson side channel.

#5: 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

Property Details

Property: Delange (Worksite #1: MacPherson Flats)

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✓ Acquisition Planned Acquisition Date 07/15/2026

✓ Restoration

LANDOWNER

Name Peter and Patricia Delange
Address PO Box 848
City Winthrop
State WA Zip 98862
Type Private

OWNERSHIP

Instrument Type Deed - Quit Claim
Purchase Type Fee ownership
Term Length Perpetuity
Yrs
Expiration Date
Note

Questions

#1: Provide a detailed description of the property. Describe the habitat types, size, and quality on site (forested riparian, floodplain, wetlands, tributary, main-stem, off-channel, bluff-backed beach, barrier beach, open coastal inlet, estuarine delta, pocket estuary, uplands, etc.), critical areas on site, and any other features that make the site unique.

The 8.7acre floodplain property is adjacent the Chewuch River with a perennial side channel running through the east and west side of the parcel. The floodplain forest has been cleared for various human uses including a homesite, large shop and equipment yard. Mature trees are scattered throughout the parcel, but little to no riparian vegetation is naturally regenerating and in some cases is regularly cut along the side channel.

#2: Describe adjacent land uses. Describe the property's proximity to publicly owned or protected properties in the vicinity. Attach a map or aerial photo in PRISM that illustrates this relationship.

The adjacent land is owned by WDFW on the east, west and south sides and USFS on the north side. The public land is open space with no developed trails or access points for public use.

#3: Is the property in need of restoration?

Yes

#3a: Describe the restoration needs, planned timeframe, and funding plan for implementation.

Removal of culverts, roads and infrastructure will allow for the side channels to naturally flow and develop healthier and more vegetated perennial flow paths for year-round salmonid use. The property is lacking riparian vegetation where it has been prevented from regenerating on its own. Natural regeneration will be an immediate response to initial restoration. Planting and maintaining vegetation includes irrigation, mulching, deer protection, weed abatement and monitoring for 5 years.

#4: What is the current use and zoning for the property?

The property is currently a home and commercial business. The property owners operate an excavation business with an extensive equipment yard. Current zoning is residential single family.

#5: What is the property's Shoreline Master Plan designation?

Conservancy

#6: What portion of the property is within the 100-year floodplain and/or designated floodway?

The entire property is within the 100-year floodplain.

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#7: Why are federal, state, and local regulations insufficient to protect this property from degradation?

The current state of the property provides a clear answer to how the existing regulations are insufficient to protect the property. Nearly 4 acres of the 8.7acre floodplain property have been legally developed for residential and commercial uses, and are therefore considered to be existing non-conforming under county shoreline and critical areas regulations. This status allows continued use and expansion of the existing uses through easily obtained permits. Acquisition will allow MSRF to reset the permitting clock to current regulatory restrictions, and add new conservation protections to prevent continuation of uses that significantly impact floodplain and in-stream habitat functions.

#8: Has the applicant requested and/or received a "waiver of retroactivity" from the RCO for the property in question? If yes, what was the sellers name, the approval date, and waiver number?

No

#9: Does the applicant hold an option or purchase and sale agreement for the property? If yes, what date will it expire?

No

Project Proposal

Project Description

The project objective is to remove the existing private development that prevents the MacPherson side channel from functioning as a perennial floodplain and side channel. This project seeks to acquire and protect an 8.7 acre parcel adjacent public land along the Chewuch River. The parcel includes an existing home site and commercial excavation and trucking yard and shop adjacent to WDFW land and Okanogan National Forest. The property includes approximately 680 feet of the 3,500' long MacPherson side channel that is fed by the Skyline diversion intake from the Chewuch River as a year-round side channel. The acquisition would remove all buildings and provide permanent protection necessary to restore and maintain this section of the MacPherson side channel and connected floodplain for anadromous fish use.

Project Questions

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

This parcel is in the lower reach of the Chewuch River and provides opportunities to protect, enhance and reconnect floodplain areas in the lower Chewuch. The parcel is surrounded by publicly owned state and federal land that provide opportunities for future restoration. Acquiring and protecting this parcel provides opportunities for larger restoration actions that would connect existing riparian features and increase floodplain connectivity through this reach.

The lower eight miles of the Chewuch River have historically been developed for a mixture of agricultural and residential uses since the Methow Valley was opened under the Homestead act. Multiple irrigation diversions were established to meet homestead requirements at that time. Access to irrigation water and farmable land supported conversion of riparian lands first for agricultural development, and more recently for residential and recreational activities. Over a hundred years of development have resulted in the loss of riparian forests and confined the river to a portion of its former corridor.

During the 1960's and 70's flood reduction efforts removed most of the in-channel wood and structure with the intent of protecting downstream infrastructure. Throughout the past decades, there have been a series of watershed scale megafires that burned both riparian and upland forest. The cumulative result of these actions have simplified the river channel, cutting it off from much of its floodplain and disconnecting riparian stands. This disconnection has caused a reduction in shade and wood inputs needed to restore fish habitat. The surrounding public land and its habitats elevate the value of protection.

This site also supports some existing mature riparian forests that can support river function into the future. Current landowners have been amenable to maintaining a perennial connection to the river through a side channel that transects the property. The significant infrastructure is protected by the upstream levee preventing the side channel to naturally migrate and support riparian forest regeneration.

Acquiring this parcel will provide opportunities to implement enhancement actions across the property that extends to the adjacent upstream parcels as a coordinated effort to protect and enhance fish habitat. MSRF staff have reached out to upstream adjoining owners (USFS and WDFW) and received support for this acquisition and future restoration.

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

In the Chewuch River-Pearrygin Creek Assessment Unit, the reach ranking is 1. Priority actions include restoring reach function and addressing limiting factors. Priority species include Spring Chinook and Steelhead. High priority life stages for these species include winter rearing and summer rearing. Unacceptable limiting factors include Cover- Wood, Floodplain Connectivity, Riparian-Canopy Cover, Temperature- Rearing. At risk limiting factors include Flow- Summer Base Flow, Off-Channel- Side-Channels, Riparian-Disturbance, Riparian. Priority actions include Bank Restoration, Channel Complexity Restoration, Channel Modification, Floodplain Reconnection, Instream Flow Enhancement, Riparian Restoration and Management, Side Channel and Off-Channel Habitat Restoration, Upland Management, Water Quality Improvement. In the Chewuch River-Pearrygin Creek Assessment Unit Bull Trout has a Tier 2 Restoration ranking and Tier 3 for protection. Priority life stage ranking includes adult migration and subadult rearing as medium, and adult non-spawning as low.

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#3: **Project Goals.** 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 overall project goal is to protect and enhance vital habitat in this reach of the Chewuch river. The project will prevent further degradation of instream habitat, floodplain and associated wetlands by securing permanent protections and removal of infrastructure.

The Lower Chewuch contributes significantly to production of ESA species in the Methow Subbasin, is a major spawning area for Upper Columbia River Spring Chinook and Steelhead, and provides migration and rearing habitat for Columbia River Bull Trout. Failure to acquire this property, along with infrastructure removal will increase the risk of a change in ownership and further and/or continued development. Acquisition at this time presents a unique opportunity to secure protections of a lynch pin property within a large area of publicly owned land. Without the proposed acquisition and restoration, the property could be purchased for similar uses preventing restoration and jeopardizing access to the perennial side channel.

Acquisition would ensure access for implementation of coordinated habitat restoration actions such as levee removal and side channel enhancement that would extend beyond the target property to include adjacent public lands. This project will permanently protect important habitat for egg, juvenile, and adult life stages for both Spring Chinook and Steelhead and adult and juvenile life stages for bull trout.

#4: **Project Objectives.** 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**

This project seeks to immediately acquire and protect an approximately 8.7acre residential and commercial excavation business parcel adjacent to the Chewuch River. The parcel includes approximately 680 feet of the 3,500' long MacPherson side channel. Acquisition would retire any future residential building sites, remove existing infrastructure and provide unified and permanent protection needed to facilitate future restoration that would extend beyond the boundaries to include adjacent federal and WA State public lands.

Restoration activities may include removing the upstream levee and initiating flow paths to allow the side channel to develop and maintain multiple pathways that support riparian species and provide aquatic species habitat. Following levee removal restoration actions would include planting native trees and shrubs as well as monitoring, maintaining natural regeneration and monitoring and controlling any invasive plants. This acquisition would connect and permanently protect the upstream and downstream floodplain along the Chewuch River and restore and permanently protect the existing perennial side channel.

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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.

MSRF proposes to acquire the subject property through fee simple title. Approximately 8.7 acres would be purchased. The estimated purchase price was negotiated with the family with the agreement that the final purchase price would be determined through a reviewed appraisal process. All deliverables are the responsibility of MSRF staff. Deliverables are as follows:

1. Negotiate purchase and sale agreement with seller. Outcome: Reliable standards for performance of purchase. Target date: Fall 2026/Winter 2027.
2. Order updated appraisal/review, pending notification of grant award. Target date: Fall 2026/Winter 2027
3. Finalize purchase agreement based on completed appraisal, leading to final agreement for purchase. Target date: Winter 2027.
4. Initiate / finalize title review to ensure that all encumbrances and exceptions are fully documented. Spring 2027/Summer 2027
5. Complete survey and public purposes segregation through Okanogan County. Outcome: clear legal description and segregation of target property. Target date: Spring 2027/Summer 2027.
6. Prepare draft deed of right for RCO and PRCC Habitat Subcommittee review. Outcome: PRCC Habitat Subcommittee/RCO approval of the conditions within the proposed Deed of Right. Target date: Summer 2027.
7. Develop baseline survey, including level 1 contaminants survey, and stewardship agreements to address interim and long term uses. Target date: Spring 2027/Summer 2027. Include review of the stewardship plan with the PRCCHSC
8. Acquisition closing. Outcome: clear title subject to acceptance of title report and appraised values. Target date: Summer 2027.
9. Recorded documents to RCO and PRCC Habitat Subcommittee. Outcome: transfer of development rights completed. Target date: Summer 2027/Fall 2027.
10. Hire contractors and oversee removal of all infrastructure, weed abatement, decompaction of roads, driveways and equipment yard and seeding.
11. Project Complete – acquisition completed and protections in place. Target date: Fall 2027.
12. Final report and invoices to RCO/HCP Trib Comm leading to final approval and payment by funders. Target date: Fall 2027.

#6: **Assumptions and Constraints.** 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?

The project assumes that MSRF and the current owners can reach mutual agreement on the value of the property to be acquired. MSRF developed the application based on a value provided through a current market analysis by a local relator. The value has been reviewed against current sales and found to be consistent. The Seller recognizes that the value will have to be confirmed through an approved and reviewed appraisal process and has consented to submission of the application. MSRF has a good relationship with the family and anticipates that we will be successful in finalizing the purchase of the property based on the professional appraisal value. The landowner has delayed selling and listing the property for sale with the hope of a conservation purchase of the floodplain property.

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#7: **Previous Lessons Learned.** How have lessons learned from completed projects or monitoring studies informed this project?

MSRF has more than 20 years of experience with land acquisition and stewardship/management in the Methow watershed in support of restoration projects and habitat protection. MSRF has a proven history of implementing projects on properties we have acquired and collaborating with others to expand benefits onto adjacent properties. MSRF currently manages more than 400 acres of protected habitat in coordination with multiple funders and project sponsors.

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

The property has been owned by the Delange family for over 20 years. They own and operate a local excavation company and reside on the property. They reached out to MSRF to determine whether we might be able to purchase the property to allow for conservation of the floodplain and side channels. Over the past 2 months, MSRF has been working with the family to develop a proposal that would meet their needs and provide an opportunity to acquire and protect the property. The family has agreed to wait to put the property on the market until MSRF has had the opportunity to acquire it with conservation funding.

#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 including USFS, WDFW and the Skyline ditch company were consulted through electronic and verbal correspondence. No concerns were given regarding the acquisition of the property. There are no adjacent private landowners.

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

Yes

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

Riparian and floodplain connectivity have been identified as top priorities to mitigate negative effects of climate change. Protecting wetlands and riparian forest supports carbon sequestration, provides shade, and opportunities for thermal refugia. Protecting this parcel will ensure the riparian stands are not removed for further development, and provides opportunities for further side channel connectivity, levee removal and riparian forest re-establishment.

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

Protecting this parcel will protect floodplain and wetland habitats expanding opportunities in the perennial side channel and connected riparian forest after levee removal. Protection of the habitat on this property will allow restoration actions to increase the range of off-channel habitat types fish can access as conditions change. The MacPherson flats property is a missing link that if acquired would provide continuity to the surrounding public land and significant habitat uplift to the reach.

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#11: **Project Team Experience.** Describe the project management team's experience managing this type of project. Describe other projects where they have successfully used a similar approach.

MSRF is actively involved with land acquisition and management where such actions support future implementation and development of restoration projects. MSRF has engaged in property acquisition and management since 2002 and currently manages 400 + acres of owned land. Project experience has been focused on protection of in-stream, riparian and floodplain habitats while balancing residential and agricultural land uses. Our restoration experience includes in-stream habitat complexity, floodplain reconnection, riparian restoration, irrigation efficiency, and passage improvement projects. A short list of similar acquisition/protection projects managed by MSRF is provided below:

- Twisp River Ponds – Seven properties 2002-2006
- Chewuch River Floodplain – 3 properties in the Lower Chewuch 2006-08
- Upper Beaver Creek Acquisition – 138 acres 2011
- Whitefish Island Acquisition (Bird) – 17 acres – 2012
- Twisp River Floodplain – 39 acres 2011-2018
- M2 Sugar Levee – 36 acres – 2012-2018

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

No

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Acquisition Supplemental

#1: Do you plan to restrict or limit general public availability or use of the site in any way? If yes, describe the type of restriction, the portion of the project area that will be restricted (an illustrative map may be requested), and the reason(s) the public will be restricted.

No

No restrictions or limitations on public access are proposed. The project lies adjacent to public access areas owned by WDFW that would provide access upon completion of the project

#2: Is this a reach-scale or geographic envelope project?

No

#3: Will this project use grant funds (or match) to acquire upland acreage?

No

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

Acquisition will result in permanent protection with clear goals and objectives for future restoration actions that will prevent future residential development or clearing on the property and ensure permanent protection and conservation of critical habitat function. MSRF will submit proposed Deed of Right language to funding entities for review to ensure adequate conditions for the protection, conservation, and restoration of the property. The property will be managed in conjunction with MSRF owned properties in the Chewuch sub-watershed and include provisions for public access. MSRF will use the updated Chewuch River Reach Assessment, which will inform future restoration actions on the acquisition property and adjacent public/private lands. MSRF will work closely with partners to ensure that future actions are compatible with long-term restoration strategies developed for the Chewuch River.

Restoration Supplemental

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

None

#1a: What level of design will be produced prior to construction?

Preliminary /
Field Fit

#1aa: If you are proposing to follow the field fit guidance in [Appendix D](#) then describe your proposed design process and deliverables to be completed prior to construction. Refer to the project deliverables table from Appendix D in your description.

A site plan will be developed to remove the infrastructure including home, shop, outbuildings, culverts and hardened surfaces. Maps will include existing riparian vegetation, natural regeneration, weed populations, and areas to be planted.

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

No

#2a: Describe the qualifications of the design team.

MSRF Staff has over 75 years of collective experience managing and implementing restoration projects. Project staff are skilled at site assessment, ecological restoration, project management, and site restoration.

#3: Does the project include measures to stabilize an eroding stream bank?

No

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#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.

All equipment brought on site to perform infrastructure removal will be required to be clean and free of weed seed. Wood chips used to mulch existing and riparian plantings will be free of seed from weed trees by sourcing chips from local tree experts that specialize in chipping native cottonwood, aspen, pine and fir trees from the Methow Valley.

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

The short-term maintenance and stewardship of the property will include overseeing removal of existing infrastructure and monitoring natural forest regeneration and weed encroachment for the first few years of establishing shade and cover for the areas void of trees and shrubs. The long-term stewardship and maintenance obligations will be yearly efforts to monitor and address weeds and riparian forest establishment. Future stewardship and maintenance of targeted plantings will be requested during future restoration opportunities. The proposed project budget includes a level one contaminants survey to determine whether there are hazardous substances or other environmental problems on the property.

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Acquisition Metrics

Property: Delange (Worksite #1: MacPherson Flats)

REAL PROPERTY ACQUISITION

Miles of Streambank and/or Shoreline Protected by Land or Easement Acquisition 0.10

Land

Clean up of hazardous substances required (yes/no) No

Total cost for Land \$472,500

Acres by Acreage Type (fee simple)		Acres
	Lake	0
	Riparian	7.38
	Tidelands	0
	Uplands	0.54
	Wetlands	0.85
	Total	8.77

Acres zoned as agricultural land 0

Existing structures on site Structures to be demolished

Market value of property improvements \$380,000

INCIDENTALS

Closing, Recording, Taxes, Title

Total cost for Closing, Recording, Taxes, Title \$14,250

Environmental Audits

Total cost for environmental audits \$3,488

Stewardship plan

Total cost for Stewardship plan \$5,100

Survey (Acq)

Total cost for Survey(Acq) \$7,500

ADMINISTRATIVE COSTS (ACQ)

Administrative costs (Acq)

Total cost for Administrative costs (Acq) \$7,830

Restoration Metrics

Worksite: MacPherson Flats (#1)

Miles of Stream and/or Shoreline Treated or Protected (C.0.b) 0.19

Project Identified In a Plan or Watershed Assessment (C.0.c) Lower Chewuch Watershed Assessment (MSRF 2025, <https://www.ucsr.org/wp-content/uploads/2026/01/2025-Lower-Chewuch-River-Reach-Assessment-Final.pdf>)

Priority in Recovery Plan In a priority area, addresses unacceptable limiting factors.

Type Of Monitoring (C.0.d.1) None

Monitoring Location (C.0.d.2) No monitoring completed

RIPARIAN HABITAT PROJECT

Total Riparian Miles Streambank Treated (C.5.b.1) 0.38

Total Riparian Acres Treated (C.5.b.2) 7.4

Debris/structures removal (C.5.j.1)

Total cost for Debris/structures removal \$63,750

Acres of Riparian Area Treated (C.5.i.2) 7.4

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Number of Riparian Area Features (C.5.c.1)

Planting (C.5.c.1)

Total cost for Planting	\$7,500
Species Of Plants planted in riparian (C.5.c.2)	Salix lucida, Elymus lanceolatus, Elymus glauca, Populus trichocarpa
Acres Planted in riparian (C.5.c.3)	4.0
Miles of streambank planted (C.5.c.4)	0.18
Average Riparian Width	260
Site Potential Tree Height at 200 years (SPTH-200)	102

CULTURAL RESOURCES

Cultural resources

Total cost for Cultural resources	\$3,750
Acres surveyed for cultural resources	8.00

ARCHITECTURAL & ENGINEERING

Architectural & Engineering (A&E)

Total cost for Architectural & Engineering (A&E)	\$1,395
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Overall Project Metrics

COMPLETION DATE

Projected date of completion 12/15/2027

PROJECT ACQUISITION

Acquisition Primary Purpose Habitat Conservation
Habitat Restoration

ACQUISITION COST ESTIMATES

Property: Delange (Worksite #1: MacPherson Flats)

Work Type	Estimated Cost	Property Value Determination: Estimate of Value
Closing, Recording, Taxes, Title	\$14,250	
Environmental Audits	\$3,488	
Land	\$472,500	
Stewardship plan	\$5,100	
Survey (Acq)	\$7,500	
Subtotal:	\$502,838	
Administration:	\$7,830	
Total Estimate For Property:	\$510,668	

Summary

Total Estimated Costs	\$502,838
Without Admin:	
Total Estimated Admin:	\$7,830
Total Estimated Acquisition Costs:	\$510,668

Restoration Cost Estimates

Worksite #1: MacPherson Flats

Category	Work Type	Estimated Cost	Note
Cultural Resources	Cultural resources	\$3,750	
Riparian Habitat Project	Debris/structures removal (C.5.j.1)	\$63,750	
	Planting (C.5.c.1)	\$7,500	
	Subtotal:	\$75,000	
Admin, Architecture, and Engineering		\$1,395	
	Total Estimate For Worksite:	\$76,395	

Summary

Total Estimated Costs Without AA&E:	\$75,000
Total Estimated AA&E:	\$1,395
Total Estimated Restoration Costs:	\$76,395

Cost Summary

	Estimated Cost	Project %	Admin/AA&E %
Acquisition Costs			
Land/Incidentals	\$502,838		
Admin	\$7,830		1.56 %
SUBTOTAL	\$510,668	86.99 %	

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<u>Restoration Costs</u>	Estimated Cost	Project %	Admin/AA&E %
Restoration	\$75,000		
Admin, Architecture, and Engineering	\$1,395		1.86 %
SUBTOTAL	\$76,395	13.01 %	
Total Cost Estimate	\$587,063	100.00 %	

Funding Request and Match

FUNDING PROGRAM

Salmon State Projects	\$587,063	100.000000
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SPONSOR MATCH

Questions

#1: Explain how you determined the cost estimates

Cost estimates are based on past professional experiences in acquisitions and an estimate of value was based on a comparative market analysis. Property cost will be based on a professional appraisal to federal standards.

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Other Funding

OTHER FUNDING DETAILS

Other Funds: Monetary Funding	Local Grant	
Amount		\$195,688
Funding Organization		Priest Rapids Coordinating Committee
Grant Program		Habitat Fund
Other Funding Detail Total:		\$195,688

Cultural Resources

Cultural Resource Areas

Worksite #1: MacPherson Flats

Area: Acquisition Property

#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)

The project actions include removal of culverts, roads, a house and outbuildings and related infrastructure and appurtenances.

#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 project actions include removal of culverts, roads, a house and outbuildings and related infrastructure and appurtenances.

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

The project actions include removal of culverts, roads, a house and outbuildings and related infrastructure and appurtenances.

#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 property is currently a home and commercial business. The property owners operate an excavation business with an extensive equipment yard. Current zoning is residential single family.

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

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

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

#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

#10: Describe any ground disturbing activities that you plan to undertake within the next 5 years (separate from this project).

...

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We may develop a future floodplain reconnection project that includes this property as well as adjacent state and federal land. Cultural review would be completed separately for the larger.

Project Permits

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

Permit Questions

- #1: Are you planning to use the **Limit 8** streamlined Environmental Species Act consultation pathway?
No

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Attachments

Required Attachments

8 out of 8 done

Applicant Resolution/Authorizations	✓
CCA Tribal Notification	✓
Cost Estimate	✓
Landowner Acknowledgement	✓
Map: Parcel map	✓
Map: Restoration Worksite	✓
Photo	✓
RCO Fiscal Data Collection Sheet	✓

PHOTOS (JPG, GIF)

Photos (JPG, GIF)



708152 Primary # 708151

PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	04/17/2026	Riparian Enhancement Plan	MacPherson flats Enhancement planting plan 26-1639_DRAFT.doc	JessicaG	MacPherson flats Enhancement planting plan 26-1639_DRAFT.docx, 708156	✓
	04/17/2026	Photo	MSRF - MacPherson Channel Restoration.JPG	JessicaG	MSRF - MacPherson Channel Restoration.jpg, 708152	✓
	04/17/2026	Photo	MacPherson Side Channel.JPG	JessicaG	MacPherson Side Channel.jpg, 708151	✓
	04/17/2026	Map: Restoration Worksite	MacPherson restoration worksite map.pdf	JessicaG	MacPherson restoration worksite map.pdf, 708150	✓
	04/17/2026	Map	Vicinity Map.pdf	JessicaG	Vicinity Map.pdf, 708149	✓
	04/17/2026	Map: Parcel map	Parcel Map.pdf	JessicaG	Parcel Map.pdf, 708148	✓
	04/17/2026	Cost Estimate	Macpherson flats acquisition budget - CS 4.17.26.xlsx	BrianF	Macpherson flats acquisition budget - CS 4.17.26.xlsx, 708147	✓
	04/16/2026	Landowner Acknowledgement	Signed Landowner ack form Delange.pdf	JessicaG	Signed Landowner ack form Delange.pdf, 707741	
	04/15/2026	Applicant Resolution/Authorizations	ApplicantAuthorizationResolution 26-1639.pdf	MarleneF	ApplicantAuthorizationResolution 26-1639.pdf, 707193	✓
	04/14/2026	RCO Fiscal Data Collection Sheet	Fiscal Data Collection & NICRA for 2026 Apps.pdf	MarleneF	Fiscal Data Collection & NICRA for 2026 Apps.pdf, 706965	
	04/13/2026	CCA Tribal Notification	MSRF Placeholder CCA Tribal Notification.docx	JessicaG	MSRF Placeholder CCA Tribal Notification.docx, 706791	✓
	04/01/2026	Project Application Report	Project Application Report, 26-1639C (04/01/26 16:33:47)	JessicaG	Project Application Report - 26-1639 (04-01-2026_16-33-47).pdf, 705189	✓

Application Status

Application Due Date: 06/22/2026

Status Name	Status Date	Submitted By	Submission Notes
Application Submitted	04/17/2026	Jessica Goldberg	
Preapplication	03/26/2026		

I certify that, to the best of my knowledge, all information in this application is true and complete, and if artificial intelligence (AI)

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was used to prepare this application, I accept full responsibility for ensuring its accuracy and compliance. I understand incomplete applications will be rejected by RCO and that I may be asked to submit additional documentation before evaluation or approval of this project. I understand that if a grant is awarded to my project, I will be bound by all representations and commitments in this application, which RCO may enforce to the fullest extent permitted by law. (Jessica Goldberg, 04/17/2026)

Date of last change: 04/17/2026

CUMULATIVE TOTALS

This sheet contains automatic calculations

Project Name	MacPherson flats acquisition
SRFB #	26-1639
Sponsor	Methow Salmon Recovery Foundation

	OVERALL PROJECT Cost	GRANT REQUEST Amount	PRISM MATCH Amount	OTHER FUNDING NOT REPORTED AS MATCH IN PRISM Amount	Budget Check
<u>Sheet #1 Acquisition</u>					
Property Costs	\$ 630,000	\$ 472,500	\$ 157,500	\$ -	0
Incidental Costs	\$ 40,450	\$ 30,338	\$ 10,113	\$ -	0
Administrative Costs	\$ 10,440	\$ 7,830	\$ 2,610	\$ -	0
Indirect Costs	\$ -	\$ -	\$ -	\$ -	
STotal	\$ 680,890	\$ 510,668	\$ 170,223	\$ -	0
<u>Sheet #2 Design</u>					
Design Costs	\$ -	\$ -	\$ -	\$ -	
Indirect Costs	\$ -	\$ -	\$ -	\$ -	
STotal	\$ -	\$ -	\$ -	\$ -	0
<u>Sheet #3 Restoration</u>					
Construction Costs	\$ 100,000	\$ 75,000	\$ 25,000	\$ -	0
AA&E	\$ 1,860	\$ 1,395	\$ 465	\$ -	0
Indirect Costs	\$ -	\$ -	\$ -	\$ -	
STotal	\$ 101,860	\$ 76,395	\$ 25,465	\$ -	0
Totals	\$ 782,750	\$ 587,063	\$ 195,688	\$ -	0

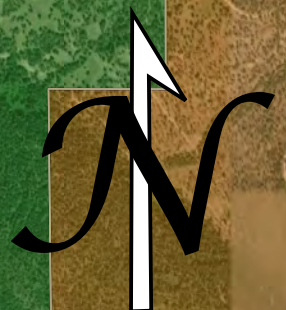
MacPherson Flats Vicinity

Chewuch River

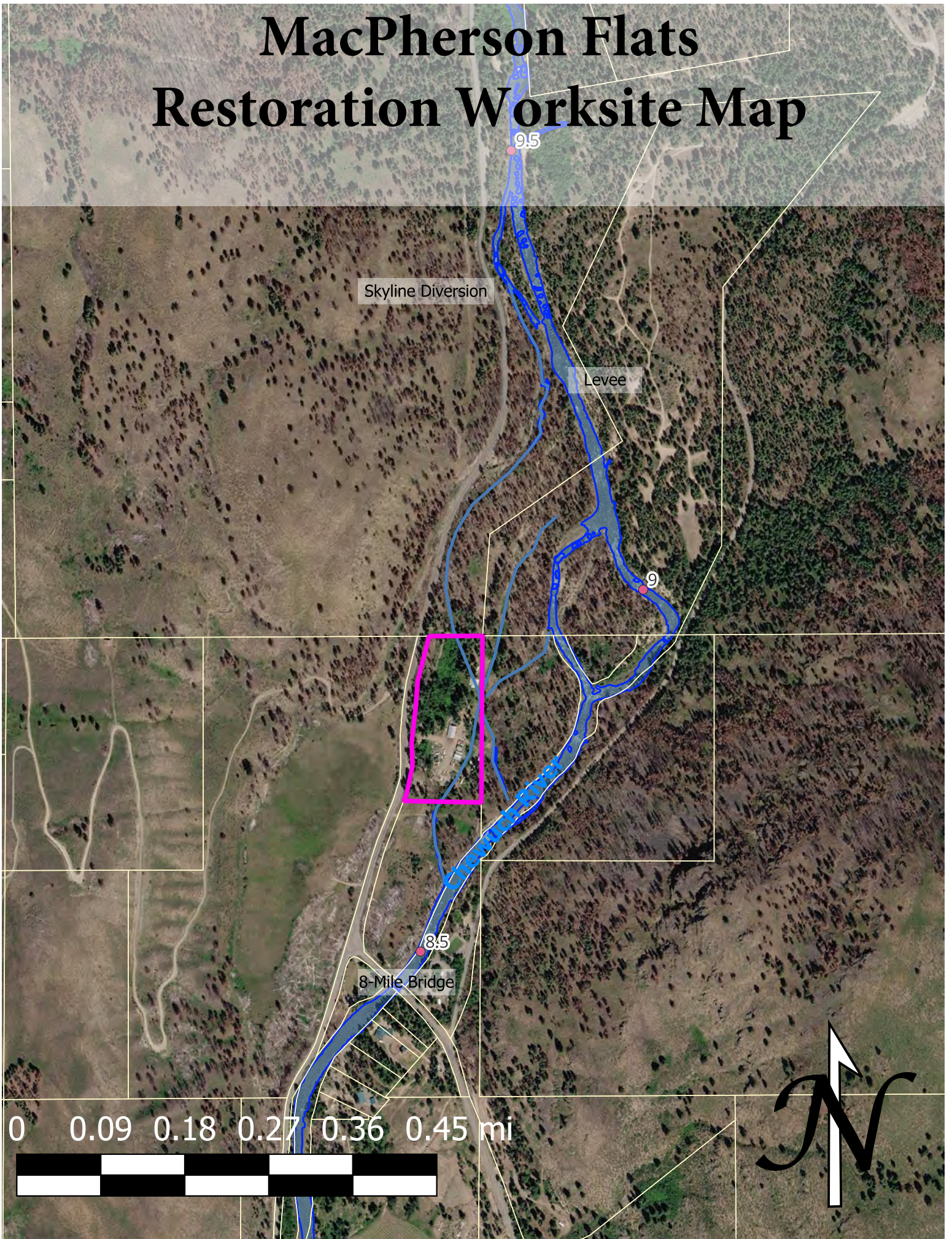
Land Ownership

-  Proposed Acquisition
-  US Forest Service
-  Confederated Tribes of Colville Reservation
-  WA State DNR
-  WDFW
-  Conservation Easements
-  Ok. Co. Parcel Boundaries



0.2 0 0.2 0.4 0.6 0.8 1 mi



MacPherson Flats Restoration Worksite Map



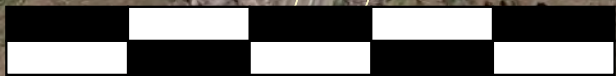
MacPherson Flats Parcel Map

 Proposed Acquisition
 Ok. Co. Parcel Boundaries
Google Satellite



Chewuch River

0 0.02 0.04 0.06 0.08 0.1 mi







Draft MacPherson Flats Riparian Restoration Project Riparian Enhancement Plan

1. Existing Conditions Assessment

Overview: The MacPherson flats acquisition and riparian restoration project is a privately parcel encompassing 8.7 acres of riparian along the Chewuch River in Okanogan County, WA. A total of 8.7 acres of plantings will be installed and/or maintained. The project area is a burned and managed floodplain with adjacent riparian forest naturally regenerating from wildfire. Previous and continued land clearing as well as the channelization of the river for flood control have prevented much of the natural riparian species to re-populate. Adjacent forests provide proof and examples of riparian forests and their roles in providing shade, nutrients, woody debris, and complexity to the riverine environment.

Target species: The Upper Columbia Salmon Recovery Board (UCSRB) prioritization strategy (2021) provides context on the priority species, life stages, strategies, and habitat conditions within the project reach vicinity. The project reach is located in Reach Chewuch River Pearygin 08. As summarized in the 2021 Habitat Action Prioritization Strategy the priority species include Upper Columbia Spring Chinook and Steelhead. Priority life stages include Summer and Winter rearing.

Environmental Setting: Much of the Chewuch River is within the Columbia basin foothill riparian woodland and shrubland as described by the WA DNR (2015). Habitats in the Chewuch watershed are a mixture of Ponderosa pine and Douglas fir forests, shrub steppe and Aspen/Cottonwood riparian areas. Dominant climax species along the Pearygin 08 reach in the Chewuch River include Cottonwood and Ponderosa pine.

Land use: Loss of riparian and floodplain ecosystems along the Chewuch River and throughout the Upper Columbia has significantly altered the processes that create and maintain fish habitat. Riparian forests provide critical components of fish habitat such as leaf litter and large wood, as well as ecosystem services like maintaining water quality, supporting nutrient cycling, and influencing sediment dynamics. Over the last century and a half, expansion of agricultural and residential development along the valley floor cleared riparian forests and has resulted in confinement and simplification of the Chewuch River, reducing both the quantity and productivity of fish habitat. Floodplain areas have been attractive for development given the relatively flat terrain, good soils, and easy access to irrigation water. As a result, most of these transitional areas have been converted to agriculture and residential uses. These actions created a legacy of isolated floodplains, hardened banks and simplified habitats for Chinook, steelhead, and the organisms and processes upon which they depend. Much of this reach has been negatively affected by human activity and a significant portion of the riparian of the reach

has been cut-off from the river with a levee. Since then, riparian vegetation has recovered in limited areas, with much of the area persisting in a sparsely vegetated condition. The majority of the acreage stays dry enough to prevent natural regeneration of riparian species critical to sustaining large wood production and verdant riparian expanses in the reach. A substantial riparian buffer in this this reach can also buffer the river from post fire sediment run-off.

Soils: U.S. Department of Agriculture mapped soils within the property planting areas as Newbon gravelly loam and Winthrop loamy sand. The well drained soil profile is loamy sand to 5 inches followed by gravelly sandy loam and progressing to gravelly loamy sand and very gravelly sand. USDA survey water depth properties are consistent with other riparian sites in the overall reach at 80" to water table at low water.

Hydrology/Water Quality: Precipitation in the form of rain and snow is the main source of fresh water in the Chewuch Basin. The Chewuch River can have an abundance of clear and cold water providing high quality habitat for salmonids including ESA listed Upper Columbia Steelhead and Spring Chinook. With rising land temperatures and the modelled climatological pattern of annual precipitation of more rain than snow in the Cascade Mountains, critical habitats will benefit from more buffers to add shade to reduce river temperatures, provide nutrients for adult and juvenile fish and complex habitats for all aquatic species.

Site Constraints: The hot, dry summers in the Upper Columbia makes care of young plants difficult until they establish roots down to perennial ground water. Available annual rainfall can slow growth of planted stock and stunt growth. Some of the plantings in this project area are expected to require irrigation, while some will benefit from the braided side channels long enough to sustain annual growth and vitality. Mulch and manual weed control for up to 5 years will help establish self-sustaining plants where human impacts are removed. Expected heavy deer pressure can stunt and even kill young establishing plants. Deer browse protection will be employed where riparian conditions allow. Where deer browse cages and/or deer fencing is inapplicable, larger plants will be installed to hasten growth. Past success in this reach with the similar soil profiles and types have proven successful with consistent irrigation, proper planting techniques and care.

2. Restoration Objectives

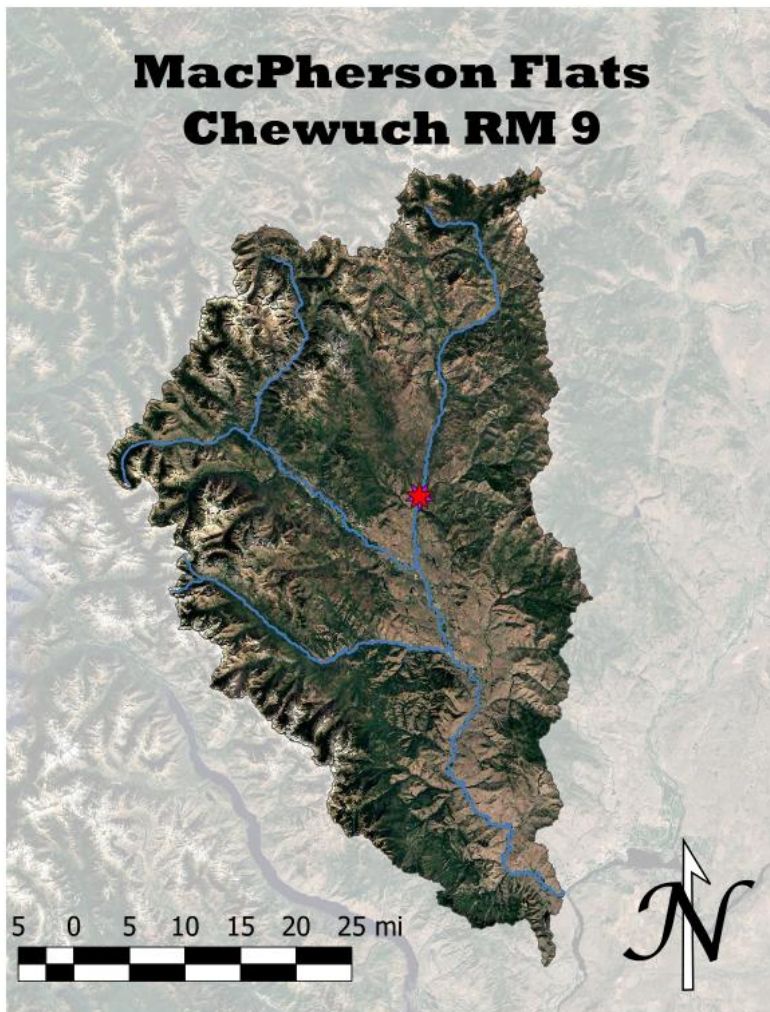
The root cause of this riparian floodplain being denuded or poorly revegetating on its own is human activity and wildfire. The current condition of the floodplain, and sparsely vegetated side channel, will evolve into a mixed shrub and tree forest that will provide nutrient cycling, help maintain water quality, and provide shade for salmonids at all life stages.

Specific objectives include establishing 8.7 acres of riparian forest by planting and/or maintaining naturally regenerating native trees and shrubs including Cottonwood, Birch, Alder, Ponderosa pine, Serviceberry, Chokecherry, Black hawthorn, and Willow. Approximately half of the acreage is expected to not naturally regenerate native trees and shrubs quickly and need supplemental planting. These plantings will take 1-5 years to establish and will be self-

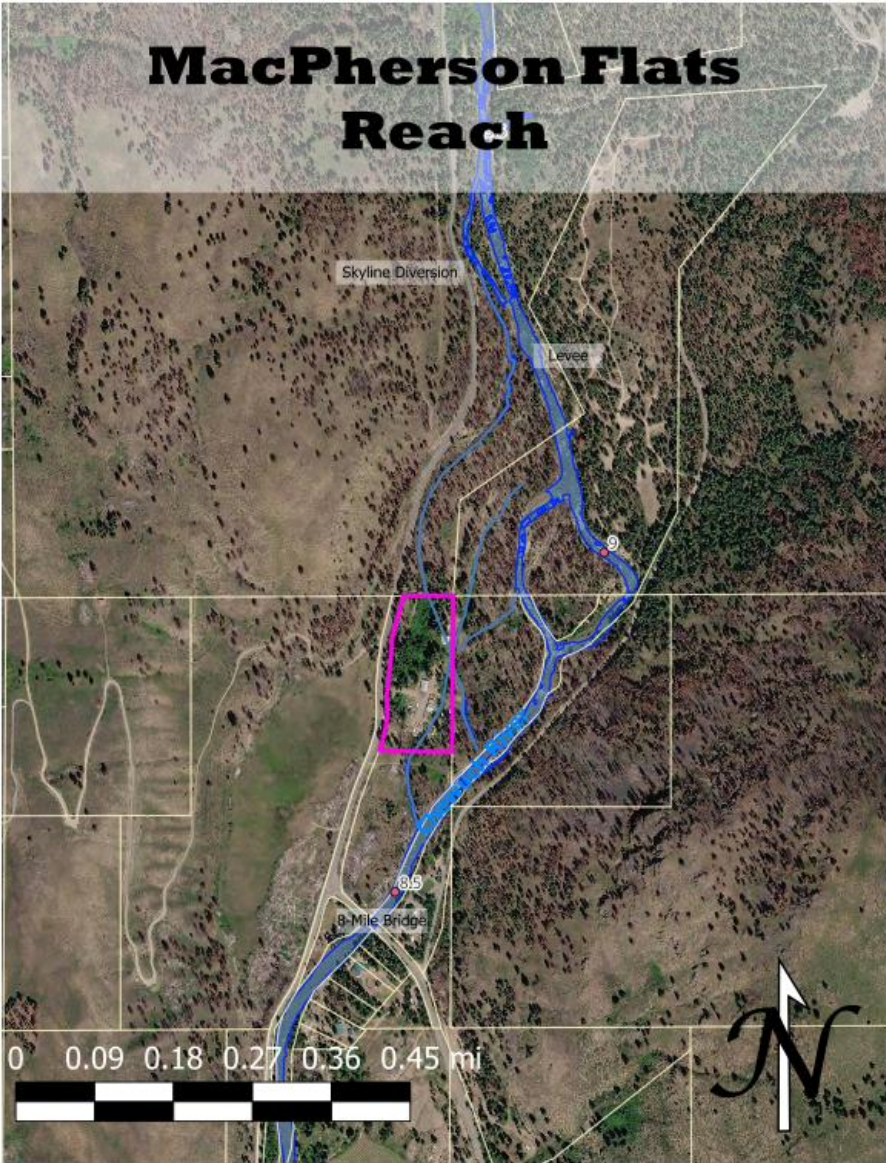
sufficient once established. The water table at low water is between 2 and 5 feet below existing grade of the planting areas. Future restoration on public land above the acquisition will lower the floodplain in portions of the planting areas and allow for more side channels to develop and naturally revegetate. On the acquired parcel trees and shrubs will be planted in a manner to encourage deep rooting by soaking the root horizon and mulching to keep the roots moist, provide microbiological cycling, and keep competitive grasses away from the plant stem. Plantings of a similar nature and similar elevation have proven successful in the reach making the proposed plantings achievable over the grant period. Trees will provide shade to the channels and mainstem, leaf litter, small woody debris, and seed for recruitment. Shrubs will also provide leaf litter and vegetative plant material for nutrient cycling and a food web to benefit aquatic species including ESA listed Spring Chinook and Upper Columbia Steelhead.

3. Plan Maps

Project Reach



Proposed planting area map



4. Site Preparation Methods

Planting contractor will prepare planting sites by removing any grass or other non-native vegetation and prepare the planting sites in rows or spacing of approximately 12' centers.

Secondly, mulch will be deposited at each planting site with composted wood chips from native trees and shrubs or site sourced forest detritus.

Contractor will plant into each prepared site with a native tree or shrub, mixing composted wood chips or site sourced forest detritus into the root horizon.

After planting, each site will be top dressed with extra mulch or forest detritus to reduce competitive grass growth near the plant stem.

The sponsor will secure funding, hire, and supervise field crews to complete site preparation work. The sponsor will secure any permits and licenses needed to complete work, including land-use permits and permission, and will ensure field crews possess necessary licenses and qualifications.

Maintenance of the tree and shrub plantings will be included in the Post-Implementation Maintenance Table B and adaptive management section below.

5. Riparian Planting Methods

Planting will consist of potted plant stock (1 gallon or 40 cubic inch). The sponsor will source native plant stock from a local native plant nursery and cross reference available tools such as the seed-lot selection tool ([seed-lot selection tool](#)) to choose material to increase resilience under the modelled climate change scenario for the region. The sponsor will install potted stock no later than the end of December. A species list is included in Table A. This list is subject to change based on plant availability and landowner input.

Plant stock installation will occur with a shovel or mini excavator. Holes will be dug 2 times larger than the potted plant materials container size. Plants will be watered in where irrigation is accessible and tamped by hand or foot to ensure root to soil contact and be left adequately moist. Plants will then be lightly mulched with leftover composted wood chips or forest detritus to prevent competitive grasses from re-establishing and provide a carbon source for microbiological activity to thrive and produce nutrients over time. Mulch will trap moisture from rain and snow, as well as irrigation in the summer months. At project sites with access to irrigation, plants will be irrigated weekly in the first two years and reduced to 1-2 times a month in years 3-5 as presented in the maintenance plan. Where irrigation is not available deep rooted and larger plant materials is preferred.

All heavily disturbed areas will be seeded with native grass and/or a sterile erosion control mix that will prevent soil erosion and invasive weed populations to take hold. Seeding will take place in the fall or prior to spring post snow melt and monitored for germination and effectiveness.

Weeds will be controlled with a combination of weed abatement tools including herbicide, mowing, hand pulling and biological controls. Weed population mapping and follow up monitoring will drive which weed abatement tools to continue to use on the property.

Table A: Species List

Species		Quantity
Acres		
Trees		
Ponderosa pine	<i>Pinus ponderosa</i>	100
Black cottonwood	<i>Populus trichocarpa</i>	200
Alder	<i>Alnus incana</i>	150
Birch	<i>Betula occidentalis</i>	150
Total Trees		600
Shrubs		
Serviceberry	<i>Amelanchier alnifolia</i>	25
Chokecherry	<i>Prunus virginiana</i>	25
Black hawthorn	<i>Crataegus douglasii</i>	25
Snowberry	<i>Symphoricarpos alba</i>	25
Wood's rose	<i>Rosa woodsii</i>	25
Dogwood	<i>Cornus alba</i>	200
Pacific Willow	<i>Salix lucida</i>	100
Total Shrubs		425
Total Plants		1,025

6. Implementation Monitoring

To evaluate if the enhancement activities meet the restoration objectives (section 2), the sponsor will perform implementation monitoring in years one through five. Percent survival of tree stock will be based on quantitative counts from year one through five.

Naturally regenerating species will be included in this count. The sponsor will use high resolution drone imagery to determine the percentage of canopy cover of trees, possibly other species, using an off-the-shelf analysis software.

- Percent survival of tree and shrub species (quantitative), years one through five
- Vigor and health assessment of species (qualitative)

Monitoring results will allow sponsor to assess the need for adaptive management of the restoration site. Monitoring likely will occur between May and July, to target growing season and correspond with annual maintenance activities. As part of quantitative and qualitative monitoring efforts, the sponsor will take a minimum of three photos at six established photo stations. Drone imagery of the entire site also may be captured.

Table B: Maintenance Schedule

Mowing and mechanical weed abatement	Years 1-5 in summer and fall
Replant native species to maintain survival objectives	Years 1-2 in spring or fall
Maintain herbivory protection	Years 1-5 in spring
Mulch as needed	Years 1, 3, and 5 in spring
Irrigation	Years 1-5 in summer (as needed)
Remove herbivory protection	Year 5
Remove any irrigation or maintenance infrastructure	Year 5

The native plantings will be maintained annually for 5 years. Annual maintenance includes deer browse repair from winter snow and harsh weather, annual fertilization with time release fertilizer and/or compost, periodic mowing of grasses and annual and perennial broadleaf plants in between planting rows, periodic irrigation June through August, periodic inspection of plantings and their health and vigor. With successful maintenance and limited unpredicted constraints, the plantings should be able to survive on their own and be a self-sustaining young forest.

7. Adaptive Management

Under heavier loss conditions, the following adaptive management will be considered.

Rodent: Vole and small rodent damage in the first two years of establishment can cause high mortality in a field planting site. Adding extra mulch, providing hawk perches, and wrapping young stems in soffit screens (small gauge wire mesh) can be employed as secondary measures to prevent vole and rodent damage.

Flooding: In the event of a flood event that inundates the plantings, care to replace or resurrect the fencing will be necessary.

Irrigation: Extra irrigation will be employed if temperatures are extraordinarily high, and/or if there is limited winter and/or spring precipitation.