



GRMW PROPOSAL APPLICATION - FINAL

Project/Application Title: Chesnimnus Creek - Zone 4

Submitted By: Kathryn Frenyea, Nez Perce Tribe

Phone: 541-398-1669

Email: kathrynf@nezperce.org

Mailing Address: 500 N. Main Street, Joseph, OR, 97846

GRMW Request Amount: 1049616.00

Total Cost Share: 1212730.00

Total Project Cost: 2262346.00

Invoice Information (If GRMW is the fiscal agent)

Mary Estes GRMW Fiscal Manager

1114 J Avenue

La Grande, OR 97850

541-663-0570

mary@grmw.org

This proposal is for a RESTORATION type project!

Location/Abstract

General Location	Downstream Extent	Upstream Extent
Latitude: 45.7109780	Latitude: 45.7093410	Latitude: 45.7160880
Longitude: -117.0852390	Longitude: -117.0920590	Longitude: -117.0805070

Opportunity Map

Due to a limitation of the framework tool used to create PDFs, we are unable to display the opportunity map within this document. However, you may still view the opportunity map using the following link:
[Opportunity Map Link](#)

The current project reach is located on private land along Chesnimnus Creek, a tributary to Joseph Creek, roughly 35 miles northeast of Enterprise, OR. The upstream property boundary abutts USFS land. The project reach has been straightened, incised, and confined, resulting in a lack of floodplain connectivity. Combined with a homogenous channel bed and seasonally limited stream flow, the project reach provides little quantity and quality habitat value to juvenile steelhead. Chesnimnus Creek is a designated Major Spawning Area for the Joseph Creek Steelhead Population - the most viable wild steelhead population within the Snake River Basin.

Engineered designs have been developed for the entire 5.5 mile property, which will be phased and implemented in four distinct Zones (1-4). This application is seeking funding to implement Zone 4 - a 2.27 mile reach located immediately below the ranch house, extending to the downstream end of the property.

Project designs aim to:

- Restore hydraulic processes, floodplain connection, and habitat structure
- Protect and enhancing existing riparian vegetation
- Restore riparian processes
- Protect and enhance existing beaver habitat and area of influence

Project partners include the design engineer and funding agencies, United States Forest Service (USFS), Trout Unlimited (TU), Oregon Department of Fish & Wildlife (ODFW), Wallowa Resources, US Fish & Wildlife Services (USFWS), Grande Ronde Model Watershed (GRMW), Bonneville Power Administration (BPA), and the landowners.

Stepwise & Atlas

Prospectus submitted and review by Atlas Implementation Team: Yes

Project prospectus title and/or ID# (if applicable): Chesnimnus Creek - Williams Reach

Associated Subwatershed: MCC1

Associated Opportunity: MCC1 - Lower Ches, Salmon, Alder & Pine

Problem Statement & Opp Score

The problem statement described the critical/limiting life stages and limiting habitat factors identified in the Atlas for the subwatershed in which this project is located and explain which of these species, life stages and limiting factors will be addressed in this project (how the problems will be addressed should be discussed in the 'Proposed Solution' section). This includes past land use history with respect to the project reach and larger watershed—especially any land use that has led to the current impaired condition.

According to the Wallowa Atlas, the most limiting life stages in the MCC1 Subwatershed (Joseph Creek & Tributaries) are incubation/emergence, and summer and winter rearing for steelhead. Riparian vegetation, floodplain condition, bed and channel form, instream structural complexity, and temperature are limiting factors to both steelhead and lamprey, with sediment also listed as a limiting factor for steelhead.

The Wallowa Atlas development team noted that high sediment, water temperature, and habitat fragmentation are all factors contributing to incubation/emergence, and summer rearing limiting life stages, with particular concern regarding future temperature regime alterations. Another annotation states that winter rearing increased in priority due to concerns around losses of winter rearing habitat, specifically on private lands. Chesnimnus Creek is also 303(d) listed as “impaired” for both temperature and sediment (ODEQ 2022) - primary limiting factors to steelhead egg incubation and juvenile rearing life stages.

All restoration actions implemented through this project will aim to address priority limiting life stages and habitat factors identified in the Wallowa Atlas.

The current condition of this reach, and much of lower Chesnimnus Creek, is significantly degraded from natural conditions. Due to decades of channel manipulation, levee construction, vegetation clearing, infrastructure placement, and other anthropogenic interventions, both the stream channel and floodplain have been simplified and disconnected. These land-use practices, combined with a substantial reduction in beaver populations within the watershed, have resulted in loss of off-channel habitat, floodplain connectivity, and native plant propagation. The lack of deep pool habitat, riparian trees and shrubs, and cold-water connection within the floodplain have also contributed to increased instream water temperatures. Rising stream temperatures, reduced stream flows, and changes in runoff timing associated with climate change have further limited habitat availability and suitability for steelhead.

Higher water velocities due to channel straightening and simplification has especially degraded water quality during spring runoff through bank erosion, causing excessive fine sediment deposition in stream and channel scour. Channel confinement and high velocities have also lent to larger imbedded cobble substrate and a plane bed channel lacking aggradation of spawning sized gravels, limiting spawning habitat. A roadbed parallels the entire stream extent further contributing to hydrologic confinement, sediment input instream, and channel simplification.

Where vegetation is present, the riparian corridor is narrowly bracketed by fence, both limiting the width of the riparian area and creating issues during high flows. For decades high water events have caused significant damage to riparian fence infrastructure.

Final Opportunity Score (Atlas opportunity score)

48.0

Permits

All permits associated with the project are listed below along with a date of acquisition and date of expiration.

Permit Name	Date Acquired	Expiration Date
Oregon DSL - Removal/Fill	None	None
NMFS/USFWS - Section 7 ESA	None	None
Federal, State & Tribal - Section 106 Cultural	None	None
ACOE - 404 Permit	None	None
Oregon DEQ - 401 Certification	None	None

Restoration Actions

Below is a list of all restoration actions applicable to this project.

Restoration Action	Justification
2. Channel Reconstruction	
3. Pool Development	
4. Riffle Construction	
7. Levee Modification: Removal, Setback, Breach	
8. Remove - Relocate Floodplain Infrastructure	Infrastructure associated with livestock management (e.g., riparian fencing).
9. Restoration of Floodplain Topography and Vegetation	
11. Perennial Side Channel	
12. Secondary (non-perrenial) Channel	
15. Hyporheic Off-Channel Habitat (Groundwater)	
16. Beaver Restoration Management	
17. Riparian Fencing	Construction of set-back riparian fencing.
18. Riparian Buffer Strip, Planting	
26. Boulder Placement	Boulder placement within sections of constructed riffle.
27. LWD Placement	
29. Restore banklines with LWD - Bioengineering	Provide short-term stability (5 years) at strategic locations by roughening banks using large woody debris, willow clumps, or other natural materials.
34. Upland Vegetation Treatment - Management	Planting, seeding, and weed management in disturbed areas post-construction.

Proposed Solution

The proposed solution states the project goals and articulates the expected outcomes of the project. It explains how the restorations actions selected will address the problems stated in the problem statement.

The goal is to enhance aquatic habitat diversity and restore natural stream function, including the encouragement and/or mimicry of beaver activity, for all freshwater life stages of threatened and sensitive species within the project reach. Specifically, to increase survival and productivity of early life stages of steelhead, lamprey, and other aquatic species. to achieve this biological outcome, project objectives are based on established ecologic, geomorphic, and hydrologic process-based mechanisms. Furthermore, to attain habitat restoration goals that are sustainable and compatible with cattle operations, coordination with landowners is essential.

Design team and stakeholder collaborations and interpretations of the current environmental setting have helped identify the following specific restoration actions for the project reach:

- Treatments that redirect and distribute flow and energy laterally across a broader surface, thereby creating and maintaining increased floodplain connectivity, channel complexity, and a more robust riparian corridor. Channel structure (vegetation, large woody debris [LWD], and variable sediment sizes) is severely limited within the project reach; incorporating hard points with wood structures (bank jams, apex jams, beaver dam analog structures), constructed riffles, and levee removals will be implemented to obstruct downstream flow and redirect flow and energy laterally.
- Redirecting flow into adjacent existing riparian vegetation where feasible will provide immediate bank structure and habitat. Similarly, utilizing existing low-lying, relict topography to capture and redistribute flows across the floodplain will facilitate side channel formation while reducing construction and excavation, enabling a lighter touch during project implementation.
- Realigning the channel (where possible and necessary) will reduce channel

slope, reduce velocities, and increase water surface elevations, which will improve floodplain connectivity and result in more bank length. Combined with the addition of adequate structure, new channel segments will provide increased hydraulic variability, resulting in gravel retention and sorting, scour pools, and slower-moving water microhabitats to the benefit of all life stages of steelhead, lamprey, and other native fish.

- Removing levees and incorporating floodplain excavation, beaver complexes, and side channels to promote hyporheic and cold-water storage and exchange, off-channel habitat, and wet meadow development.
- Addressing landowner expectations to include riparian fence removal/relocation, off-channel livestock watering, preserving or improving existing crossings and access points.
- Utilizing cattle exclusion fencing, incorporating topographic complexity, and planting and seeding using a variety of methods to ensure revegetation efforts result in robust and diverse vegetative communities and habitats.

Objectives

The table below quantifies the appropriate indicators this project will include. Each indicator has a measured current condition, an action taken, a restored condition (post-restoration), a set target condition, and justification/citation explaining why the action will work. Each indicator also includes whether or not the objective will be monitored.

Indicator	Current Condition	Action Taken	Restored Condition	Target Condition	Citation	Monitored?
Large wood frequency bankfull (Pieces/100m)	4.9	27.3	29.8	20 Pieces/100m		Yes
Side channel length (Meters)	1032.0	1143.0	2175.0	N/A		Yes
Connected floodplain area (% Increase)	27.28	9.4	36.68	20% Increase		Yes
Large pool frequency/km (Pools/km)	2.7	7.4	10.1	>= 10/km		Yes

Reporting Requirements: In addition to the objectives outlined above, sponsors who receive funding through GRMW understand they will be required to resubmit the indicators/objectives table and budget after implementation to verify that work was completed as proposed and on budget. If there were any deviations from the proposed actions or budget they will be asked to explain those deviations at that time. If they plan to submit a completion report to BPA or a similar organization, they may include this table as a part of the completion report to meet this requirement. Please note that if they wish to recreate this table in their own document that it must include "proposed" and "actual" columns to accurately reflect the work completed.

Objectives Narrative

Objective Narrative: This block explains why the objectives selected are relevant to this project and why/how the actions selected in the Restoration Actions section should result in the restored condition proposed.

All selected Objectives correlate to proposed High and Medium priority Restoration Actions for MCC-1 (except for #8 and #29) identified by the Wallowa Atlas. The Restoration Actions will aim to improve instream habitat and floodplain function in the following ways:

- Increase the spatial heterogeneity and complexity of high-quality habitat and distribute stream flow and energy through a range of hydrologic conditions through the addition of 372 key pieces of LWD. Reconnect or create 7,962 LF of new secondary channels and off channel connections (at 1.5 yr flow) and improve channel geometry to include a generally low width-to-depth ratio with increased hydraulic diversity and sediment sorting that is favorable for spawning (width, depth, and velocity with ample structure and cover).
- Increase seasonal floodplain connection and function by 9.41 acres (at 1.5 yr flow) to dissipate flood energy while improving flood water storage, hyporheic exchange, floodplain fine sediment storage, in-channel sediment reduction, high-flow juvenile refugia, nutrient exchange, and riparian vegetation.

Explain Target Condition: This block explains why any of the restored conditions of any objectives selected do not meet the target condition. If all restored conditions meet the corresponding target condition, then this field will appear blank.

Some of the target conditions are unknown for MCC-1 due to unavailability of data.

Additional Objectives: This block includes any additional objectives not captured in the objectives table. Objectives should be specific, measurable, achievable, relevant, and time-bound.

Additional project objectives set to be achieved by 2026 include:

- Establish, protect, and maintain a robust native riparian plant community along channel banks and floodplains, increasing shade, improving bank structure and habitat, and providing a buffer from upland and floodplain sediment sources. This will be accomplished through native seeding and planting over approximately 22 acres, installation of 720 LF willow baffles, 703 LF brush bank treatments, and 1,577 LF roughened edge.
- Maintain and enhance existing beaver activity where possible and create habitat features that can be utilized by beaver to expand their area of use and influence through the installation of 203 LF relic BDA structures.
- Protect and/or modify infrastructure while maximizing fish habitat uplift. Livestock management improvements will include the installation of 3 ford crossings, 3 gates, and 2,952 LF of set-back riparian fence (removal of 7,317 LF old fence).

Climate Change Concerns: This block explains considerations made regarding how this proposed work may address climate change concerns.

Climate change was considered in the design. Primary features that address climate change scenarios (runoff timing, lower flows, increased temperature) include side channels, wetlands, and shallow groundwater storage. In addition to these features, there will be increased floodplain connectivity and wetland habitat, which should also enhance shallow groundwater storage and subsequent surface water/groundwater connectivity in warmer months and low-flow conditions. Any resulting expansion of beaver habitat will further ameliorate effects of climate change within the project reach.

Previous Work: This block describes any previous work implemented in this reach and how this project connects to or builds upon those previous efforts.

No previous work has been completed within this reach by the current sponsor.

Other Species: If there any other sensitive or listed species, aquatic or terrestrial, impacted by this project, this block lists them and explains how they might be impacted by this project.

Many species listed on Oregon Conservation Strategy list occupy the Chesnimnus Watershed, part of the Blue Mountains Eco-region year-round. These species include:

American beaver, Western toad, Columbia spotted frog, Townsends big eared bat, Spotted bat, California myotis bat, Western bumblebee, Swainson's hawk, Pileated woodpecker, Three-toed woodpecker, Black backed woodpecker, Great gray owl, Flammulated owl, Gray wolf, and the Monarch butterfly. Seasonal utilization is documented for the following: Loggerhead shrike, Burrowing owl, Ferruginous hawk, and Lewis's Woodpecker.

Additionally, local US Forest service wildlife division staff have confirmed either recent or historic utilization by the following: White headed woodpecker, Western ridged mussel, Rocky Mt. tailed frog, McFarlanes four o'clock, American Pika, Bobolink, Long-billed curlew, Olive-sided flycatcher, Upland Sandpiper, Fringed myotis bat, and the Pallid bat.

Utilization of the watershed by the twenty plus species listed above further demonstrates the extensive impact restoration could have across the ecosystem. Specifically, the improvement of aquatic habitat and adjacent wetlands would enhance habitat for the Western toad, Columbia spotted frog, American beaver, and the Long-billed curlew. Additionally, a key component of project planning includes the utilization of adjacent timber to create instream habitat through placement of whole trees. The thinning of the adjacent overstocked conifers stands will promote habitat improvements for several woodland and bird species listed above as well as reduce the risk of climate related catastrophic fire.

This project will be thoroughly vetted through programmatic consultation with USFWS and NMFS and reviewed by a variety of state and federal permitting agencies. If any sensitive species are identified during these review processes as having a high likelihood of occupancy within the project footprint, the project sponsor will take necessary action (e.g., surveys, monitoring, etc.) to minimize any potential impacts.

Is this a phased project?

Yes

If this is a phased project, can this phase be a standalone project?

Yes

Monitoring

This table shows all objectives specified for monitoring. It explains who will be performing this monitoring, how it will be implemented, how long it will take place for, whether or not it will be shared or available to Atlas partners, and how that data will be shared/made available.

Monitoring Indicator	Monitor	Protocol	Time Monitored (yrs)	Availability/Sharing
Connected floodplain area	GRMW	Remote sensing	3-5 years post project	Yes, any data collected can be made available to Atlas partners and can be shared in the preferred format.
Riparian vegetation	GRMW/NPT	Remote sensing/photo points	3-5 years post project	Yes, any data collected can be made available to Atlas partners and can be shared in the preferred format.
Temperature	Rio/NPT	Hobo loggers	3-5 years post project	Yes, any data collected can be made available to Atlas partners and can be shared in the preferred format.
Redds/Mile (single pass)	NPT/IT partners	SGS	3-5 years post project	Yes, any data collected can be made available to Atlas partners and can be shared in the preferred format.

Landowner Engagement

The following table is applicable to projects which take place on private property. It lists the relevant landowners involved in the project, the landowner agreement, whether or not neighboring landowners have been contacted, and whether or not there were any issues identified (resolved or unresolved) concerning the landowner.

Landowner	File (Click to Download)	Neighbors Contacted?	issues
	None	None	
John P Top	None	None	

Timeline

Will this project be completed within 2 years if awarded funding? Projects that will be completed in the first year of the contract in-water work window will be given funding priority over out-year projects (applies to restoration projects only).

Yes

Project Elements

The table below identifies the major work elements of this project, when the work for each element is proposed to begin, and when that work is expected to end.

Project Element	Proposed Start Date	Proposed End Date
Large wood harvest & haul	May 1, 2026	Aug. 1, 2026
Boulder acquisition & haul	May 1, 2026	Aug. 1, 2026
Mobilization	Aug. 1, 2026	Aug. 31, 2026
Instream habitat & floodplain construction	Sept. 1, 2026	Nov. 16, 2026
Erosion control & isolation	Sept. 1, 2026	Nov. 16, 2026
Site restoration & demobilization	Nov. 9, 2026	Nov. 24, 2026
Seeding, mulching & planting	Nov. 3, 2026	Nov. 17, 2026
Fence construction	Oct. 12, 2026	Nov. 24, 2026

Designs

Level of Current Designs:

80%

Alternatives Analysis:

The restoration plan for the project reach integrates elements of limiting disturbance to existing sensitive resource areas, restoring processes for improved river-floodplain function, establishing key wood structures for beavers to create more permanent main channel structures, and rehabilitation and enhancement of fish habitats and riparian vegetation. Following property tours and in-depth discussions with the landowner and the design team, the following restoration concepts have been considered within the project reach:

- Restore process and habitat by distributing flow and energy laterally and/or reconstructing appropriate primary and secondary channel planforms within the range of recommended target conditions. Preferably, relocate and/or create new channels directly adjacent to existing mature vegetation.
- Restore hydraulic processes, floodplain reconnection, and habitat by providing a greater diversity of channel forms. Channel geometry and planform restoration should focus on reducing channel confinement, increasing sinuosity, and increasing geomorphic complexity. Secondary channels should be incorporated where possible. Restoration efforts should focus on recruitment of natural beaver dams and addition of structural wood members to increase longevity of beaver-created dams in the mainstem to promote deposition, channel aggradation, floodplain connectivity, and hydraulic diversity.
- Protect and enhance existing areas of dense woody riparian vegetation where hydraulic complexity and habitat conditions are already favorable.
- Restore riparian processes by planting woody vegetation with greater plant density along the outside of bends and in floodplain areas susceptible to channel migration and/or avulsion to ensure future channel evolution results in favorable conditions.
- Restore process and habitat by increasing the abundance of instream structure, creating hydraulic diversity and habitat complexity while promoting more floodplain inundation and side channel development.
- Restore localized hydraulic processes and habitat by modifying primary channels to result in diverse habitat units, including pool-riffle sequences with a range of geometry and spatial distribution.

Additional Comments:

Due to the size of the design plan set (95 pages in total), it has been divided into 5 parts. Within these 5 parts, pages relevant to Zone 4 implementation have been separated out for the purpose of this application. Part 1 is attached here, which includes: Design Cover Sheet, Control Points & Key Map, and Access & Staging pages. Parts 2-5 will be uploaded in the "Additional Files" section of this application.

Designs File:

Download Designs File: [Open File in Web Browser](#)

Budget

Download Budget File: [Open File in Web Browser](#)

Budget Narrative: This block explains the budget and any unusual line items or costs.

Construction contingency is based off of recent comps provided by the engineering firm and applies only to construction, not engineering time or related activities (i.e. stake out). TERO (Tribal Employee Rights Office) is mandatory rate of 3.5% of construction funds.

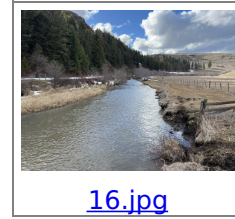
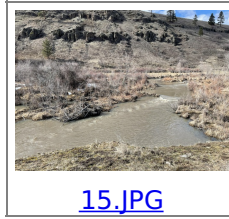
Cost Share

The table below outlines all cost share included for this project including: the organization/source of the cost share, the amount of the cost share (in dollars), whether or not the funds have been secured, whether the funding is cash or in kind, and the reference or contract number if available.

Organization/Cost Share Source	Amount (\$)	Secured?	Cash/In Kind?	Reference/Contract # (If Available)
Private Forestry Accord	\$1,212,730	No	Cash	

Uploaded Photos

By providing pictures the following photos to GRMW the applicant agrees to have their pictures displayed on the GRMW website (grmw.org) and social media accounts.



Additional Files

File Name (Click to Download)	Description
Open File in Web Browser	Zone 4 - Earthwork pages
Open File in Web Browser	Zone 4 - Design Sheet pages
Open File in Web Browser	Zone 4 - Plan and Profile pages
Open File in Web Browser	Zone 4 - Detail Sheets: Erosion Control, Channel Fill & Sequencing, Constructed Riffle, LW Structure pages
Open File in Web Browser	Zone 4 - Detail Sheets: Willow Baffles, BDA, Boulder and Racking, Fence Specs, Cross Sections, and Revegetation pages
Open File in Web Browser	Basis of Design Report
Open File in Web Browser	
Open File in Web Browser	Draft landowner agreement

Signature

Signature	Accepted Terms	Draft Signed	Final Signed	Date Signed
Kathryn Frenyea, Nez Perce Tribe	Yes	Yes	No	Oct. 15, 2025

The signature below affirms everything the applicant has entered into this document is true and accurate to the best of their knowledge and that they agree to stipulations previously outlined in this application such as the sharing of media and reporting requirements should the project be approved by the GRMW Board of Directors.

Kathryn Frenyea, Nez Perce Tribe
Applicant Digital Signature

Oct. 15, 2025
Date Signed (Most Recent)