

## PROJECT: 22-1008 PLAN, GRANDE RONDE 4-0 DESIGN

Sponsor: Asotin Co Conservation Dist    Program: Salmon State Projects    Status: Preapplication

### Parties to the Agreement

#### PRIMARY SPONSOR

Asotin County Conservation District

**Address** 720 Sixth St Ste B

**City** Clarkston    **State** WA    **Zip** 99403

**Org Type** District-Conservation

**Vendor #** SWV0010207-00

**UBI**

**Date Org created**

**Org Notes**

[link to Organization profile](#)

Org data updated

#### SECONDARY SPONSORS

No records to display

#### LEAD ENTITY

Snake River Salmon Rec Bd LE

#### QUESTIONS

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

### External Systems

#### SPONSOR ASSIGNED INFO

**Sponsor-Assigned Project Number**

**Sponsor-Assigned Regions**

#### EXTERNAL SYSTEM REFERENCE

Source	Project Number	Submitter
HWS	22-1008	AFitzgerald

# Project Application Report - 22-1008

## Project Contacts

Contact Name Primary Org	Project Role	Work Phone	Work Email
<a href="#">Alice Rubin</a> Rec. and Conserv. Office	Project Manager	(360) 867-8584	<a href="mailto:alice.rubin@rco.wa.gov">alice.rubin@rco.wa.gov</a>
<a href="#">Megan Stewart</a> Asotin Co Conservation Dist	Project Contact	(509) 552-8100	<a href="mailto:megan@asotinco.org">megan@asotinco.org</a>
<a href="#">Brad Riehle</a> Asotin Co Conservation Dist	Alt Project Contact	(509) 552-8117	<a href="mailto:brad@asotinco.org">brad@asotinco.org</a>
<a href="#">Ali Fitzgerald</a> Snake River Salmon Rec Bd LE	Lead Entity Contact	(509) 382-4115	<a href="mailto:ali@snakeriverboard.org">ali@snakeriverboard.org</a>

## Worksites & Properties

- # Worksite Name
- #1 Grande Ronde 4-0

Planning	Property Name
✓	4-0 Land & Livestock

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## Worksite Map & Description

Worksite #1: Grande Ronde 4-0

### WORKSITE ADDRESS

Street Address  
City, State, Zip

## Worksite Details

Worksite #1: Grande Ronde 4-0

### SITE ACCESS DIRECTIONS

### TARGETED ESU SPECIES

Species by ESU	Egg Present	Juvenile Present	Adult Present	Population Trend
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Steelhead-Snake River, Grande  
Ronde River Lower Mainstem,  
Threatened

### Reference or source used

### TARGETED NON-ESU SPECIES

Species by Non-ESU	Notes
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Bull Trout

### Questions

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

13849 Grande Ronde River Road

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## Project Location

### RELATED PROJECTS

#### Projects in PRISM

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

#### Related Project Notes

### Questions

#1: Project location. Describe the geographic location, water bodies, and the location of the project in the watershed, i.e. nearshore, tributary, main-stem, off-channel, etc.

The Grande Ronde River is listed as a major spawning area and priority protection reach for fall chinook and migration reach for steelhead that flows directly into the Snake River. The project begins at RM 34.9 and ends at RM 35.2.

#2: How does this project fit within your regional recovery plan and/or local lead entity's strategy to restore or protect salmonid habitat? Cite section and page number.

Northwest Marine Fisheries Service. 2017. ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon (*Oncorhynchus tshawytscha*) & Snake River Basin Steelhead (*Oncorhynchus mykiss*). Portland, OR.  
This project is identified in the Snake River Salmon Recovery Plan and 3 yr workplan.

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

Yes

#3a: How does this project fit into the sequencing of the larger project?

This project was identified in the Grande Ronde Conceptual Restoration Plan during the Geomorphic and Watershed Assessment that was completed for the Grande Ronde River and tributaries in Asotin County in 2021.

#4: Is the project on State Owned Aquatic Lands? Please contact the Washington State Department of Natural Resources to make a determination. [Aquatic Districts and Managers](#)

Yes

## Property Details

Property: 4-0 Land & Livestock (Worksite #1: Grande Ronde 4-0)

✓ Planning

#### LANDOWNER

Name	4-O Land & Livestock LLC
Address	13849 Grande Ronde River Road
City	Anatone
State	WA Zip 99401
Type	Private

#### CONTROL & TENURE

Instrument Type	Landowner Agreement
Timing	Proposed
Term Length	Fixed # of years
# Yrs	10
Expiration Date	12/31/2032
Note	

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## Project Proposal

### Project Description

The Asotin County Conservation District is sponsoring the 4-0 Instream Habitat Project to finalize the design and install instream structures to increase sediment deposition, improve overwinter and high-flow habitat and promote large woody debris accumulation. The project will also include riparian habitat improvement actions.?

This project area was identified as having high potential for restoration benefits in the Draft Grande Ronde Geomorphic Assessment. Focal species for the project include fall chinook, summer steelhead and resident rainbow trout.?

The 4-0 Instream Habitat Project is located southern portion of Asotin County along the Grande Ronde River at 13849 Grande Ronde River Road. The project begins at RM 34.9 and ends at RM 35.2. The Grande Ronde River is listed as an MSA and flows directly into the Snake River.

### Project Questions

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

The 4-0 Grande Ronde Habitat Improvement Project site is located on the inside of the bend of the Grande Ronde River from RM 34.9 to RM 35.2, just downstream of the Washington/Oregon border. In the Grande Ronde Geomorphic Assessment, this site was identified as a location with high potential to provide habitat benefits on the mainstem Grande Ronde River. The primary restoration actions identified for the mainstem Grande Ronde include:

- Protect and Stabilize Established Islands and Side Channels
- Encourage Riparian Vegetation Growth on Bars and Islands.
- Promoting Fish access to Tributary Inlets and Provide Cool Water Refugia at Tributary Confluences.

The existing conditions at this site have formed a perennial side channel and island along the left bank. This side channel and island provide some of the best opportunity on the lower mainstem Grande Ronde to accomplish the first two objectives listed above. The side channel planform has been relatively stable over the historical photographic record, but recently some channel expansion has occurred, forming a steep 15- to 20-foot vertical bank along the left bank that lacks any significant riparian vegetation and cover. Not only has no vegetation been established, but without some interventions the steep to vertical banks are unlikely to support riparian vegetation in the future. Furthermore, both the mainstem Grande Ronde and side channel through this site have little or no in-channel structure or complexity that would provide stability to the island and are furthermore void of instream habitat and hydraulic refugia. The landowner has reached out to and partnered with the Asotin County Conservation District to help improve instream habitat and establish a vibrant, native riparian zone along the extent of the property.

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

Six primary limiting factors for the Lower Mainstem Grande Ronde were identified in the Grande Ronde Subbasin Plan in 2004 specifically for steelhead but largely apply to the other focal species as well and remain relevant today are discussed further in the Geomorphic Assessment and Restoration Prioritization. Of those limiting factors this project, when implemented, will directly address the following:

- Decreased riparian function – This limiting factor would be improved through enhancement of riparian conditions to better accommodate native vegetation, as well as direct plantings of native vegetation. Improving the riparian function has far reaching benefits for multiple species and life's stages of salmonids.

- Lack of key habitat (pools) – Installation of large woody material in the perennial side channel which is expected to add geomorphic structure and habitat diversity, including pools to the side channel. Pools provide holding areas for migrating adult steelhead and other salmonids in the Grande Ronde. Additionally, pools with overhanging cover in side channels and off channel areas such as those on this project site provide resting areas for out-migrating steelhead, allowing more growth before facing predation in the Snake and Columbia.

The project is also expected to provide beneficial or mitigating effects on two additional limiting factors for this reach.

- Temperature – Temperature benefits to this reach may be realized through eventual shading in the side channel from improved riparian function making the pools and habitat provided by the project a cool water refugia, important for multiple life stages of steelhead and other salmonids.

- Predation- Large wood and pool habitat will provide some immediate benefit as predation refugia for steelhead and salmonid juveniles and yearlings. Additionally, the pools and side channel habitat provided here will allow out-migrating juveniles additional time to grow and become less susceptible to future predation in the Snake and Columbia Rivers.

#3: What are the project goals? The goal of the project should be to solve identified problems by addressing the root causes. Then clearly state the desired future condition. Include which species and life stages will benefit from the outcome, and the time of year the benefits will be realized. **Example Goals and Objectives**

The goal of this project is to develop a final design report, construction ready engineered plans and complete environmental compliance requirements. Management objectives that were identified in the Grande Ronde Geomorphic Assessment and Restoration Prioritization focus on side channels and islands like the ones in this project site to provide the best opportunities to improve habitat and refugia in the mainstem Grande Ronde. The project will seek to maximize the habitat benefit provided by the side channel and island by improving instream habitat and riparian conditions.

Improve the geomorphic complexity of the side channel, which currently exists as a plane bed channel with no complexity or habitat benefit.

This will improve habitat year-round since the side channel exists throughout low flows, resulting habitat pools with cover to benefit adult holding locations for steelhead and other salmonids as well as out-migrating habitat for juvenile and yearling steelhead.

Improve the hydraulic condition of the riparian area on the banks of the side channel and islands that have degraded to point of vertical banks lacking in vegetation and with little to no chance of vegetation becoming established.

Establish riparian vegetation on the island and banks of the side channel to improve the overall ecological function of the reach. Plants will quickly provide overhanging cover and shading which will improve the instream habitat conditions for all life stages an

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#4: What are the project objectives? Objectives support and refine biological goals, breaking them down into smaller steps. Objectives are specific, quantifiable actions the project will complete to achieve the stated goal. Each objective should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound). [Example Goals and Objectives](#)

The objective of this project is to provide a set of construction-ready designs, a full design report, complete the environmental compliance, secure permits, conduct cultural survey requirements and develop a bid package within two years of receiving funding. An engineer's cost estimate will also be developed to seek and secure funding for the construction phase.

The objectives for this project revolve around the three primary goals of stabilizing the island and side channel banks, promoting riparian vegetation planting, and improving side channel instream habitat. Because of the bank and island elevations above the ordinary high water mark, upland vegetation planting is proposed as well. Together these actions are expected to improve and maximize the habitat potential that the side channel and island provide. Primary objectives of the design include the following:

1. Create "velocity shadows" to promote deposition on the established islands and banks of the side channel to provide a location for riparian vegetation to establish.
2. Improve 200 to 300 feet of bank conditions through earthwork and sloping where slopes currently exceed 1:1.  
? This will be verifiable immediately after construction and should be maintained until vegetation is established. This bank slope adjustment will allow vegetation to be planted immediately following construction.
3. Establish 5 to 10 acres riparian vegetation on the island and banks of the side channel through riparian plantings.

#5: Scope of work and deliverables. Provide a detailed description of each project task/element. With each task/element, identify who will be responsible for each, what the deliverables will be, and the schedule for completion.

The landowner selected and entered into an agreement with Anchor QEA to complete the initial site assessment and develop the conceptual/alternative design analysis. Based on that framework, ACCD is collaborating with the landowner and Department of Ecology to fund the development of the initial work needed for the preliminary design development.

Deliverables and timeline associated with this grant application include:

1. Design Analysis and Hydraulic Modeling  
? Time Frame: October 2022 to January 2023  
? Lead: Anchor QEA and ACCD
2. Cultural Resource Consultation  
? Time Frame: October 2022 to January 2023  
? Lead: ACCD
3. Preliminary Design Report  
? Time Frame: by April 2023  
? Lead: Anchor QEA and ACCD
4. Design Review  
? Time Frame: by May 2023  
? Lead: ACCD
5. Project Permit Applications  
? Time Frame: September 2023  
? Lead: ACCD
6. Final Design  
? Timeframe: January 2023  
? Lead: Anchor QEA and ACCD
7. Design Review  
? Timeframe: February 2024  
? Lead: Anchor QEA and ACCD
8. Final Design Package and Project Bid Documents Delivered  
? Timeframe: March 2024  
? Lead: Anchor QEA and ACCD

#6: What are the assumptions and physical constraints that could impact whether you achieve your objectives? Assumptions and constraints are external conditions that are not under the direct control of the project, but directly impact the outcome of the project. These may include ecological and geomorphic factors, land use constraints, public acceptance of the project, delays, or other factors. How will you address these issues if they arise?

There is one landowner in the project area who has already provided support for this project to be developed and has already partnered with the Conservation District to start the development of the project designs. That landowner will be engaged throughout the entire review and development of the designs. The collaboration with partners and funding sources to review the designs at multiple phases will ensure the project is supported, resource concerns are being addressed and the project will meet the goals and outcomes that are identified.

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

This project was identified during the Geomorphic and Restoration Prioritization process. Based on the complexity of the project, Asotin County Conservation District has decided the best approach would be to break this project into two phases: design and implementation. This will ensure a full design plan is developed which will provide clear direction for the implementation phase as well as provide all the necessary information to meet the environmental compliance requirements.

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

This project is to develop a construction ready design plan. The development of the design components is currently being considered and will continue to be refined during design reviews. Site evaluation, modeling and analysis that will be completed by Anchor QEA, as a part of the design process to inform the design process. These tools will also be utilized to ensure the project, when implemented, will achieve the desired results for the project area.

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

This project was identified during the Grande Ronde River Geomorphic and Watershed Assessment development. The conceptual restoration plan was developed as a result of the process and this project was included in the plan. Landowners were engaged throughout the Assessment and Conceptual Restoration Plan development through public meetings and onsite visits. There has been no opposition to the conceptual restoration plan that was developed. This project is being proposed on private property and the landowner is willing to proceed with the development of a complete design package.

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

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

Among other effects, the effects of climate change are likely to increase the variability in timing and magnitude of peak and low flows and increase peak stream temperatures. The Geomorphic Assessment and Restoration Prioritization recommends targeting resiliency, reducing peak temperatures, and providing cool water refuge as restoration strategies that will help address these effects. This project will increase the resiliency of the reach by creating habitat and flow refugia in the side channel.

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

Peak temperatures may be marginally decreased with riparian vegetation shading. However, pools formed in the side channel in combination with the overhanging cover and improved riparian vegetation should provide some amount of cool water refugia.

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

The Asotin County Conservation District has been managing natural resource and habitat improvement projects for several years. We have built positive relationships with the landowners of Asotin County and have been successful in implementing projects from start to finish. Asotin County Conservation District also has great relationships with technical partners throughout the region and has utilized their expertise as needed.



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## Planning Supplemental

#1: Is the project an assessment / inventory?  
No

#2: Is your project a Barrier / Screening Diversion Inventory Project?  
No

#3: Is this a fish passage design / screening design project?  
No

#4: Will the project develop a design?  
Yes

#4a: Will a licensed professional engineer design of the project?  
Yes

#4b: Will you apply for permits as part of the project scope?

Yes

## Planning Metrics

### Worksite: Grande Ronde 4-0 (#1)

Area Encompassed (acres) (B.0.b.1)	28.9
Miles of Stream and/or Shoreline Affected (B.0.b.2)	0.30

### DESIGN FOR SALMON RESTORATION

#### Final design and permitting (B.1.b.11.a RCO)

Total cost for Final design and permitting	\$127,000
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Project Identified in a Plan or Watershed Assessment. (1221) (B.1.b.11.a)	Northwest Marine Fisheries Service. 2017. ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon (Oncorhynchus tshawytscha) & Snake River Basin Steelhead (Oncorhynchus mykiss). Portland, OR. Grande Ronde Watershed Assessment and Conceptual Restoration Plan
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Priority in Recovery Plan (1223) (B.1.b.11.b)	The project is identified as a priority in the 3-year workplan and is located in a major spawning area and a priority migration reach for steelhead and priority protection reach in the Snake River Salmon Recovery Plan
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### CULTURAL RESOURCES

#### Cultural resources

Total cost for Cultural resources	\$8,000
Acres surveyed for cultural resources	28.90

## Overall Project Metrics

### COMPLETION DATE

Projected date of completion	03/31/2024
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## Planning Cost Estimates

### Worksite #1: Grande Ronde 4-0

Category	Work Type	Estimated Cost	Note
Cultural Resources	Cultural resources	\$8,000	
Design for Salmon restoration	Final design and permitting (B.1.b.11.a RCO)	\$127,000	
	Subtotal:	\$135,000	
	Total Estimate For Worksite:	\$135,000	

### Summary

Total Estimated Costs:	\$135,000
Total Estimated Planning Costs:	\$135,000

## Cost Summary

	Estimated Cost	Project %	Admin/AA&E %
<u>Planning Costs</u>			
Planning	\$135,000		
SUBTOTAL	\$135,000	100.00 %	
Total Cost Estimate	\$135,000	100.00 %	

## Funding Request and Match

### FUNDING PROGRAM

Salmon State Projects	\$135,000	100.00 %
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### SPONSOR MATCH

## Questions

#1: Explain how you determined the cost estimates

The conceptual design was completed that included site details and recommended actions for the project area. The consultant, Anchor QEA, that completed the conceptual and preliminary design phases have provided cost projections to finalize the design products.

## Cultural Resources

### Worksite #1: Grande Ronde 4-0

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

This project is for planning and design work only. There will a geo technical analysis being proposed for the planning and may require large test pits be excavated

#2: Describe the existing project area conditions. The description should include existing conditions, current and historic land uses and previous excavation/fill (if depths and extent is known, please describe).

The current and historic land use is livestock grazing, residential homes, and farm infrastructure. The river splits into two channels

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in the project area. The river left bank has little to no riparian vegetation and has a very steep bank throughout the project area. There is a ~500 ft. section of eroding cut bank at the upstream end of the project area. There is some limited riparian vegetation on the island. Riparian vegetation on the right bank is in good condition for the expected site potential.

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

No

This project is for planning and design work only.

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

No

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

No

#6: Are there any structures over 45 years of age within this worksite? This includes structures such as buildings, tidegates, dikes, residential structures, bridges, rail grades, park infrastructure, etc.

Unknown

## Project Permits

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

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## Attachments

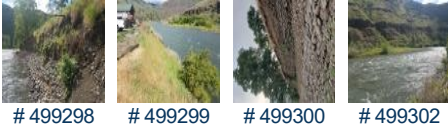
### Required Attachments

4 out of 6 done

Applicant Resolution/Authorizations	
Cost Estimate	✓
Landowner acknowledgement form	
Map: Planning Area	✓
Photo	✓
RCO Fiscal Data Collection Sheet	✓

### PHOTOS (JPG, GIF)

Photos (JPG, GIF)



# 499298 # 499299 # 499300 # 499302

### PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	02/03/2022	Photo	20200515_102316.jpg	BradR	20200515_102316.jpg, 499302	✓
	02/03/2022	Map: Planning Area	Concept_Map.pdf	BradR	Concept_Map.pdf, 499301	✓
	02/03/2022	Photo	20200825_120606.jpg	BradR	20200825_120606.jpg, 499300	✓
	02/03/2022	Photo	20200515_103047.jpg	BradR	20200515_103047.jpg, 499299	✓
	02/03/2022	Photo	20200515_102417.jpg	BradR	20200515_102417.jpg, 499298	✓
	01/31/2022	RCO Fiscal Data Collection Sheet	FiscalDataCollectionSheet 2022.pdf	MeganS	FiscalDataCollectionSheet 2022.pdf, 498931	
	01/21/2022	Project Review Comments	Project Review Comments Report, 22-1008P (01/21/22 10:09:12)	AliF	Project Review Comments Report - 22-1008 (01-21-2022_10-09-12).pdf, 498126	✓
	01/21/2022	Project Application Report	Project Application Report, 22-1008P (01/21/22 10:07:47)	AliF	Project Application Report - 22-1008 (01-21-2022_10-07-47).pdf, 498125	✓
	01/21/2022	Cost Estimate	SRFB_Cost_Estimate - Grande Ronde 4-0.xlsx	AliF	SRFB_Cost_Estimate - Grande Ronde 4-0.xlsx, 498124	✓

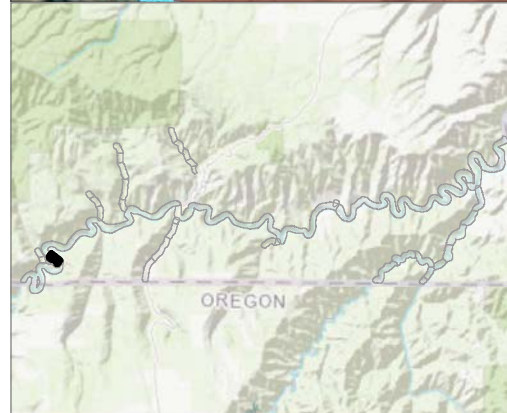
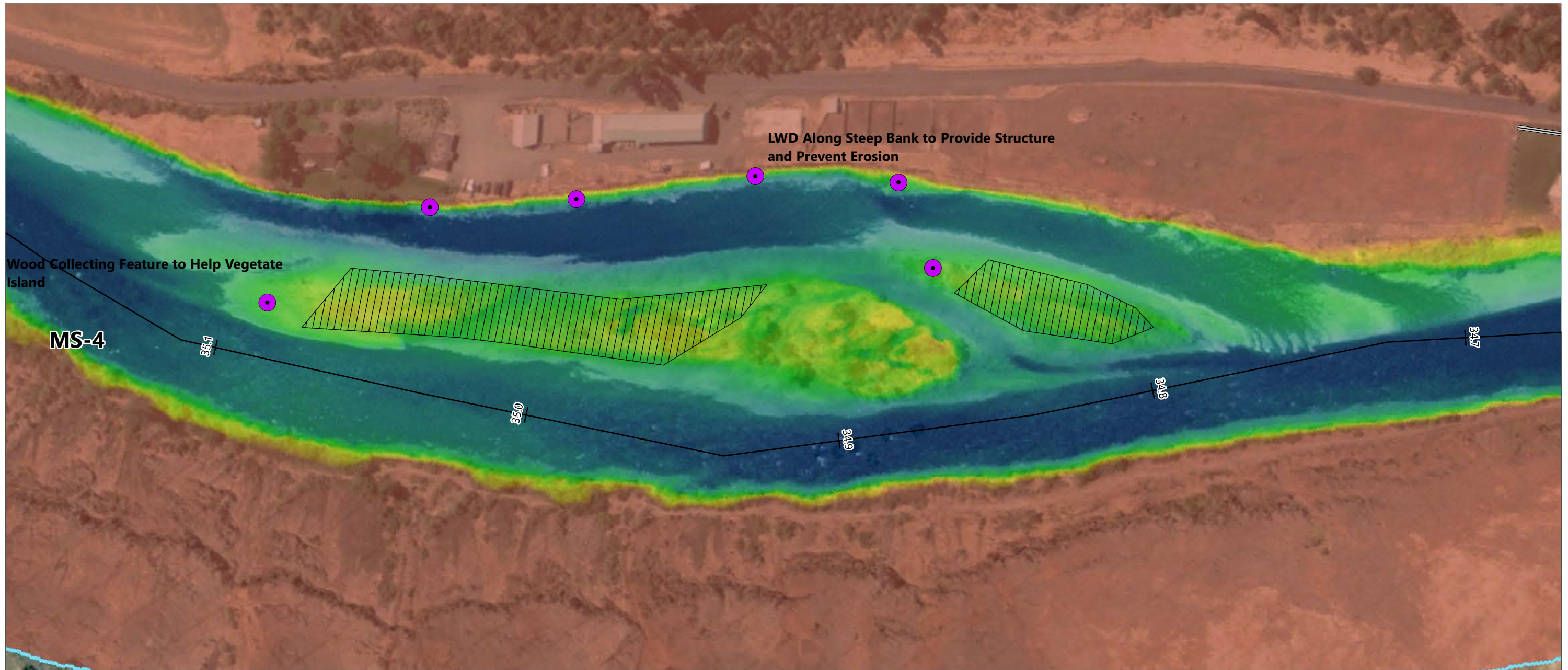
## Application Status

Application Due Date: 06/27/2022




Status Name	Status Date	Submitted By	Submission Notes
Preapplication	01/03/2022		

I certify that to the best of my knowledge, the information in this application is true and correct. Further, all application requirements due on the application due date have been fully completed to the best of my ability. I understand that if this application is found to be incomplete, it will be rejected by RCO. I understand that I may be required to submit additional documents before evaluation or approval of this project and I agree to provide them.

Date of last change: 02/07/2022



**LEGEND:**

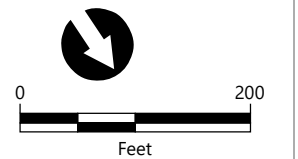
-  Grande Ronde Project Areas
-  Wood Addition
-  Goal: Improve Riparian Veg.

**Relative Elevation in Feet**



**NOTE:**

1. Horizontal datum is WA State Plane South, NAD83, U.S. Feet.
2. Vertical datum is North American Vertical Datum of 1988, feet.
3. Aerial Imagery is ESRI World Imagery (2020).
4. LiDAR elevation data is WA DNR (2018).



Publish Date: 2021/06/28, 2:17 PM | User: thutchison  
 Filepath: Q:\Jobs\Asotin\_Conservation\_District\_0847\Geomorphic Assessment\Working\TAH\CutSheets\Project Area Maps\GrandeRonde\_PA\_DDP\_Maps\_20200622\_Mainstem.mxd





Asotin Co Conservation Dist; Grande Ronde 4-4 Design (#22-1008)

Attachment #499302, 20200515\_102316.jpg



Asotin Co Conservation Dist, Grande Ronde 4-0 Design (#22-1008)

Attachment #489298, 20200515\_162417.jpg



Asotin Co Conservation Dist, Grande Ronde 4-0 Design (#22-1008)

Attachment #489299, 20200515\_163047.jpg





Asotin Co Conservation Dist, Grande Ronde 4-0 Design (#22-1008)

Attachment #489300, 20200825\_120606.jpg

