

PROJECT: 22-1010 PLAN, ASOTIN CREEK PA11.2 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.

Bonneville Power Administration - Funding partner and environmental compliance

External Systems

SPONSOR ASSIGNED INFO

Sponsor-Assigned Project Number

Sponsor-Assigned Regions

EXTERNAL SYSTEM REFERENCE

| Source | Project Number | Submitter |
|--------|----------------|-------------|
| HWS | 22-1010 | AFitzgerald |

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Project Contacts

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

Worksites & Properties

- # **Worksite Name**
#1 Asotin Creek PA 11.2

| Planning | Property Name |
|----------|---------------|
| ✓ | WDFW |
| ✓ | Hendrickson |
| ✓ | Therrell |

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Worksite Map & Description

Worksite #1: Asotin Creek PA 11.2

WORKSITE ADDRESS

Street Address
City, State, Zip

Worksite Details

Worksite #1: Asotin Creek PA 11.2

SITE ACCESS DIRECTIONS

From Asotin, take Asotin Cr. Rd. approximately 13 miles to the project site.

TARGETED ESU SPECIES

| Species by ESU | Egg Present | Juvenile Present | Adult Present | Population Trend |
|---|-------------|------------------|---------------|------------------|
| Steelhead-Snake River, Asotin Creek, Threatened | ✓ | ✓ | ✓ | Unknown |

Reference or source used

TARGETED NON-ESU SPECIES

| Species by Non-ESU | Notes |
|--------------------|-------|
| Bull Trout | |

Questions

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

Approximately 13 miles up Asotin Creek Road

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Project Location

RELATED PROJECTS

Projects in PRISM

| PRISM Number | Project Name | Current Status | Relationship Type | Notes |
|--------------|--------------|----------------|-------------------|-------|
|--------------|--------------|----------------|-------------------|-------|

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.

Asotin Creek is identified as a Priority Restoration Reach which is listed as a major spawning area that drains directly into the Snake River. The project begins at RM 14.2 and ends at RM 15.6.

#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 as a top priority and located in a minor spawning area for Steelhead and a priority restoration reach 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 Asotin County Conceptual Restoration Plan during the Geomorphic and Watershed Assessment that was completed for Asotin, George, Alpowa, Couse and Tenmile Creek watersheds in Asotin County in 2018.

#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](#)

No

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Property Details

Property: WDFW (Worksite #1: Asotin Creek PA 11.2)

✓Planning

LANDOWNER

Name Department of Fish and Wildlife (WDFW)
Address PO Box 43135
City Olympia
State WA Zip 98504-3135
Type State

CONTROL & TENURE

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

Note

Property: Hendrickson (Worksite #1: Asotin Creek PA 11.2)

✓Planning

LANDOWNER

Name Tom Hendrickson
Address 7095 Asotin Creek Road
City Asotin
State WA Zip 99402
Type Private

CONTROL & TENURE

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

Note

Property: Therrell (Worksite #1: Asotin Creek PA 11.2)

✓Planning

LANDOWNER

Name J&J Therrell Family LLC
Address PO Box 632
City Leavenworth
State WA Zip 98826
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 Asotin Creek PA 11.2 Stream Restoration Design Project to develop a full design report, ready to construct engineering plans and complete environmental compliance including permit and cultural resource requirements. PA 11 was identified as a Tier 1 project in the Asotin County Conceptual Restoration Plan. This grant application will target 1.4 miles of the project area. The conceptual plan for PA 11.2 includes improving access to side channels, controlling invasive and upland vegetation encroachment and add large woody debris to increase complexity. The Asotin Creek PA 11.2 Stream Restoration Design Project is located south of the City of Asotin, WA along Asotin Creek Road. The project begins at RM 14.2 and ends are RM 15.6. Asotin Creek is listed as an MSA and Priority Restoration Reach that 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.

Project Area 11 is a long reach on Asotin Creek, so this project focuses on the upper portion beginning at RM 14.2 and ends at RM 15.6. This project area will be identified as PA11.2 and is upstream of the Charley Creek confluence to the confluence on the North and South Forks of Asotin Creek. There are three landowners, two private and Washington Department of Fish and Wildlife. The private land is used as a working cattle ranch and significant portion is in the planning phase to be enrolled in the Conservation Reserve Enhancement Program.

The geomorphic function in PA 11.2 is moderate primarily due to limited floodplain access. There are many relic side and flood channels in the valley bottom however the main channel is incised in several areas. In this reach, between RM 14.2 to 14.6 the channel is pinned against the valley margin and will likely remain static without intervention. The channel bed and banks are armored by cobble and boulders. The majority of the channel was shaded by canopy of mature alders and cottonwood trees, however there was impacts to the vegetation during the 2021 wildfire. There are areas of the open floodplain where there is invasive vegetation encroachment.

The Asotin Conceptual Restoration Plan recommends adding large woody debris throughout the main and secondary channels and improving floodplain access. The levees on between 14.6 and 14.7 should be removed to improve floodplain connectivity and increase lateral accommodation space for the mainstem channel. Invasive vegetation should be controlled, and additional riparian planting established throughout the floodplain.

Adding large woody debris throughout the mainstem channel will increase sediment retention and aggrade the channel overtime to promote overbank flows into relic side and flood channels. This will ultimately improved floodplain connection and riparian recovery. The addition of large woody debris will also improve sediment sorting and create more suitable spawning and rearing areas for salmonids. Flood channels and backwaters will provide refuge during high flows for juvenile salmonids.

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

The primary limiting factors identified in the Asotin Conceptual Restoration Plan for PA 11 include habitat diversity, temperature and key habitat quantity. Fish species presence and use by life stage were also identified in the Restoration Plan for steelhead, spring chinook, fall chinook and bull trout. Fish life stages identified for steelhead and spring chinook included peak activity for migration, spawning, rearing and holding. Low to moderate activity for fall chinook for migration, spawning, rearing and holding. For bull trout, migration was identified as a peak activity.

#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 construction ready designs for the upper portion of PA-11 which includes RM 14.2 to RM 15.6. This will address the management objectives that were identified in the Asotin Conceptual Restoration Plan. The project will be designed to increase access to side and flood channels which will improve floodplain connection, promote riparian function and provide instream habitat complexity through the placement of structures to enhance juvenile Snake River steelhead habitat for all life stages. This project area is in relatively good condition and was listed as a Tier 1 project that would be likely to provide an immediate physical and biological response to address the limiting factors.

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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. We anticipate this design will incorporate the following objectives as determined through the design process:

- improve access to 3,000 feet of flood/side channel habitat to support juvenile rearing and over-wintering habitat
- provide over 10 acres of floodplain connectivity with a target of overbank flows at the 2-year flow reoccurrence
- install habitat structures over approximately 9,000 feet of channel length to provide instream channel complexity and promote overbank flows
- control invasive vegetation and upland vegetation encroachment on 5 to 7 acres to improve the riparian condition (full weed management survey and plan will be completed, and all invasive species and noxious weeds will be identified and mapped).
- develop a planting plan to enhance over 80 acres in the project area with native tree, shrub and grass species to support long term riparian function and condition.

#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.

Hire consultant – October 2022
- This will be done through a competitive RFP process as soon as the SRFB contract is in place
Review of Conceptual Design – December 2022
- Conceptual Restoration Plan was developed during the Asotin Geomorphic and Watershed Assessment process. (PA 11 details are in the Asotin County Conceptual Restoration Plan: Technical Document & Appendices Section 7.1.5 on pages 38-40)
Complete Survey & Hydraulic Modeling – January 2023
Cultural Resource Review – March 2023
Preliminary Design – April 2023
Design Review – May 2023
- Asotin County Conservation District will invite SRSRB, RTT and landowner to provide review in addition to funding sources
Draft Design – July 2023
Design Review – August 2023
Permit Applications – September 2023
Final Design – November 2023
- This will include final drawings, design report, technical/construction specifications, construction quantities and cost estimate
Design Review – December 2023
Delivery of Full Design Package & Bidding Documents – January 2024

#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 are three landowners in the project area and they have already provided support for this project to be developed. They will be included in the review and development of the designs. There had been significant recovery to the riparian vegetation throughout the project area until the 2021 wildfire and it will be a high priority to recover instream and riparian habitat.

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

This project was identified during the Geomorphic & Watershed Assessment and Conceptual Restoration Plan 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.

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

This project is to develop a construction ready design plans. During the development of the designs, there will be a phase that identifies design options and a local team as well as RCO will be a part of selecting the design option to utilize. Site evaluation, modeling and analysis that will be completed by the selected consultant, 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 not negatively impact infrastructure (bridge and roads) or area above or below 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 Asotin County 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 for PA 03. This project is being proposed on private property and the landowner is willing to proceed with the development of a design for the future implementation of the project. There are no identified public safety concerns identified at this time. In the event there is a safety concern identified, ACCD will address the concerns while completing the designs.

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

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

Many streams in Asotin County, including Tenmile Creek, originate in the Blue Mountains and the current hydrologic regime is snow-rain dominated for these streams, however it is anticipated to shift to a rain dominated regime. This will likely decrease summer base flows and increase summer water temperatures. Healthy stream and riparian areas conditions are essential during climate change shifts since they provide a critical location in the ecosystem for habitat for both fish and wildlife. The restoration work proposed will improve the resiliency of the project area and overall watershed.

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

This project will result in the implementation of structures and instream habitat rehabilitation increasing salmon and steelhead resiliency to climate change.

#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.

#12: Will veterans (including the veterans conservation corps) be involved in the project? If yes, please describe.
No

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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 and complete cultural resource requirements

Planning Metrics

Worksite: Asotin Creek PA 11.2 (#1)

| | |
|---|------|
| Area Encompassed (acres) (B.0.b.1) | 85.1 |
| Miles of Stream and/or Shoreline Affected (B.0.b.2) | 1.40 |

DESIGN FOR SALMON RESTORATION

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

| | |
|--|-----------|
| Total cost for Final design and permitting | \$114,000 |
|--|-----------|

| | |
|---|---|
| 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. Asotin County Watershed Assessment and Conceptual Restoration Plan |
|---|---|

| | |
|---|---|
| Priority in Recovery Plan (1223) (B.1.b.11.b) | The project is identified as a top priority and located in a major spawning area for steelhead and a priority restoration reach in the Snake River Salmon Recovery Plan and 3 year workplan |
|---|---|

CULTURAL RESOURCES

Cultural resources

| | |
|---------------------------------------|---------|
| Total cost for Cultural resources | \$6,000 |
| Acres surveyed for cultural resources | 85.10 |

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Planning Cost Estimates

Worksite #1: Asotin Creek PA 11.2

| Category | Work Type | Estimated Cost | Note |
|-------------------------------|--|----------------|------|
| Cultural Resources | Cultural resources | \$6,000 | |
| Design for Salmon restoration | Final design and permitting (B.1.b.11.a RCO) | \$114,000 | |
| | Subtotal: | \$120,000 | |
| | Total Estimate For Worksite: | \$120,000 | |

Summary

| | |
|---------------------------------|-----------|
| Total Estimated Costs: | \$120,000 |
| Total Estimated Planning Costs: | \$120,000 |

Cost Summary

| | Estimated Cost | Project % | Admin/AA&E % |
|-----------------------|----------------|-----------|--------------|
| <u>Planning Costs</u> | | | |
| Planning | \$120,000 | | |
| SUBTOTAL | \$120,000 | 100.00 % | |
| Total Cost Estimate | \$120,000 | 100.00 % | |

Funding Request and Match

FUNDING PROGRAM

| | | |
|-----------------------|----------|---------|
| Salmon State Projects | \$96,000 | 80.00 % |
|-----------------------|----------|---------|

SPONSOR MATCH

| | | | |
|------------------------|--|-----------|---------------------------------------|
| Other Monetary Funding | Grant - Federal | | |
| Amount | | | \$24,000.00 |
| Funding Organization | | | Bonneville Power Administration (BPA) |
| Grant Program | | | Fish & Wildlife Program |
| | Match Total: | \$24,000 | 20.00 % |
| | Total Funding Request (Funding + Match): | \$120,000 | 100.00 % |

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. There have been several design projects completed throughout the region to develop construction ready designs for instream habitat projects. Based on those project costs and the priorities for this project area the cost estimates were determined.

Cultural Resources

Worksite #1: Asotin Creek PA 11.2

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

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This project is for planning and design work only.

#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 project area is a riparian area dominated by Alder and cottonwood. Invasives and upland encroachment threaten riparian function. Historically the adjacent land use has been cattle grazing and winter feeding. Grazing continues on the privately owned part of the project area. There are many relic side and flood channels in the valley bottom, but the channel is incised so access to secondary channels is limited. Between RM 13.9 and 14.6, the channel is pinned against the valley margin and will likely remain static without intervention. The channel bed and banks are armored by cobble and boulders, and poorly sorted.

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

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

#4a: Please list the federal agency and funding sources.

BPA

#4b: Does the federal funding you are utilizing as match require you to receive state funding?

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.
No

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

5 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)



499175 # 499176 # 499177 # 499178

PROJECT DOCUMENTS AND PHOTOS

Project Documents and Photos

| File Type | Attach Date | Attachment Type | Title | Person | File Name, Number Associations | Shared |
|-----------|-------------|----------------------------------|--|--------|--|--------|
| | 02/02/2022 | Landowner acknowledgement form | Appendix_F_Landowner_Ack_Form - T. Hendrickson_11.2.pdf | BradR | Appendix_F_Landowner_Ack_Form - T. Hendrickson_11.2.pdf, 499179 | |
| | 02/02/2022 | Photo | DSCF8830.JPG | BradR | DSCF8830.jpg, 499178 | ✓ |
| | 02/02/2022 | Photo | DSCF8824.JPG | BradR | DSCF8824.jpg, 499177 | ✓ |
| | 02/02/2022 | Photo | DSCF8823.JPG | BradR | DSCF8823.jpg, 499176 | ✓ |
| | 02/02/2022 | Photo | DSCF8581.JPG | BradR | DSCF8581.jpg, 499175 | ✓ |
| | 02/02/2022 | Map: Planning Area | Maps_PA 11.2.pdf | BradR | Maps_PA 11.2.pdf, 499174 | ✓ |
| | 01/31/2022 | RCO Fiscal Data Collection Sheet | FiscalDataCollectionSheet 2022.pdf | MeganS | FiscalDataCollectionSheet 2022.pdf, 498926 | |
| | 01/21/2022 | Cost Estimate | SRFB_Cost_Estimate - Asotin Creek PA 06 Restoration.xlsx | MeganS | SRFB_Cost_Estimate - Asotin Creek PA 06 Restoration.xlsx, 498149 | ✓ |

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



Asotin Co Conservation Dist. Asotin Creek PA11.2 Design (#22-1010)
Attachment #499175, DSCF8581.JPG



Asotin Co Conservation Dist: Asotin Creek PA11.2 Design (#22-1010)
Attachment #499176_DSCF8E23.JPG



Asotin Co Conservation Dist, Asotin Creek PA11.2 Design (#22-1010)

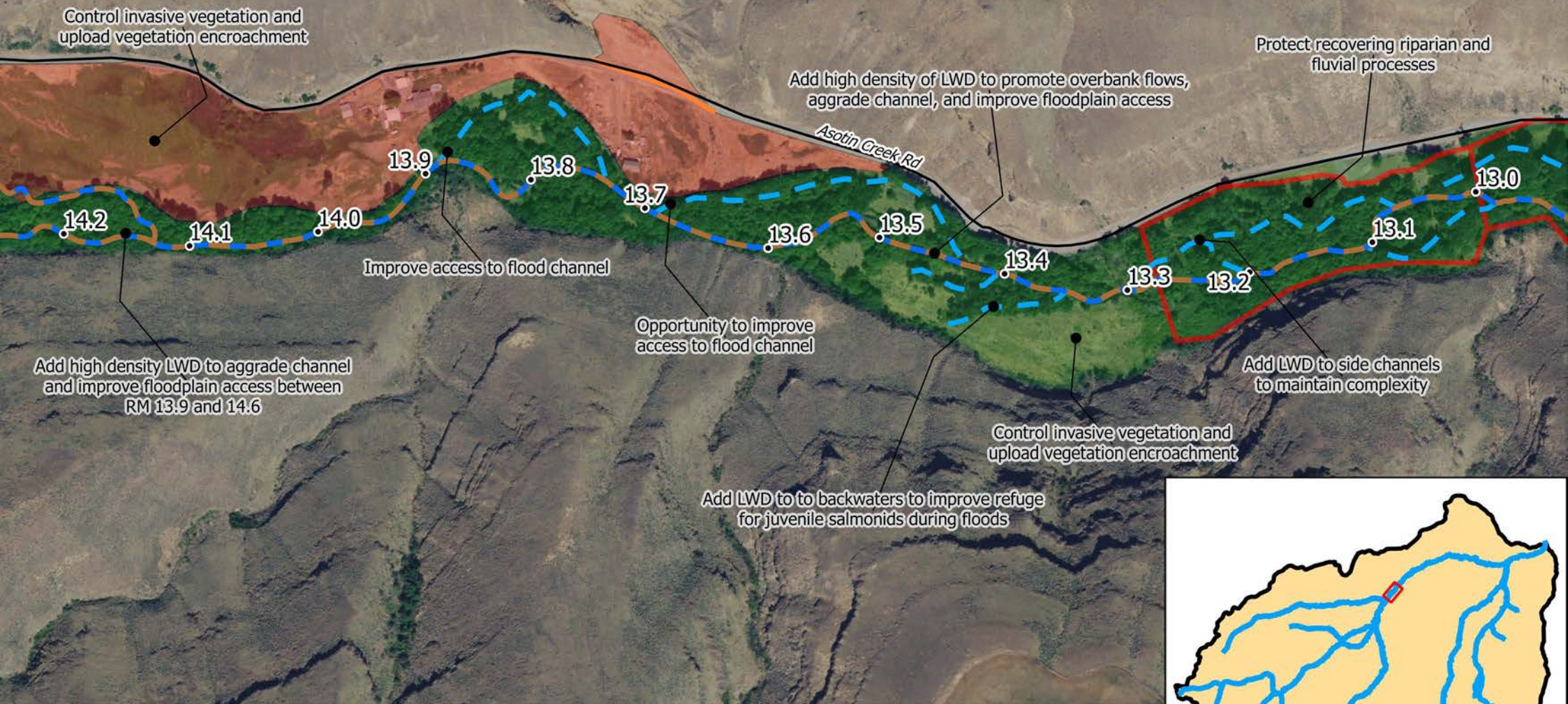
Attachment #499177_DSCF8E24.JPG



Asotin Co Conservation Dist. Asotin Creek PA11.2 Design (#22-1010)

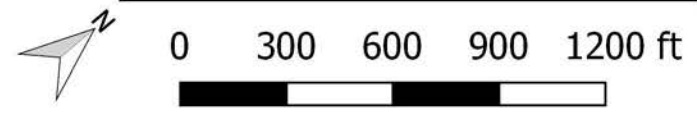
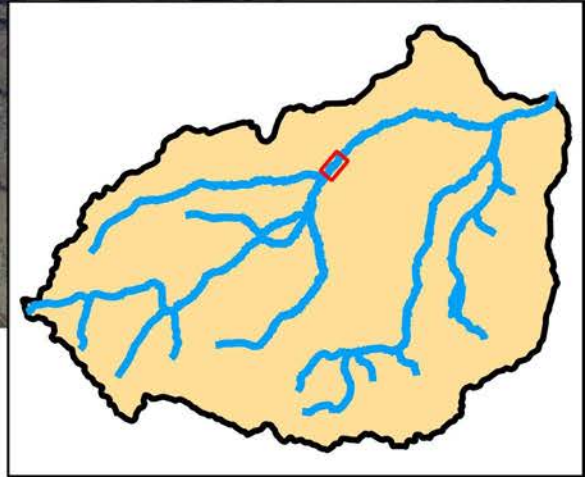
Attachment #499178, DSCF8830.JPG

Asotin Creek
 Reach AC_04
 Project Area 11
 River Mile 13.0 to 14.2

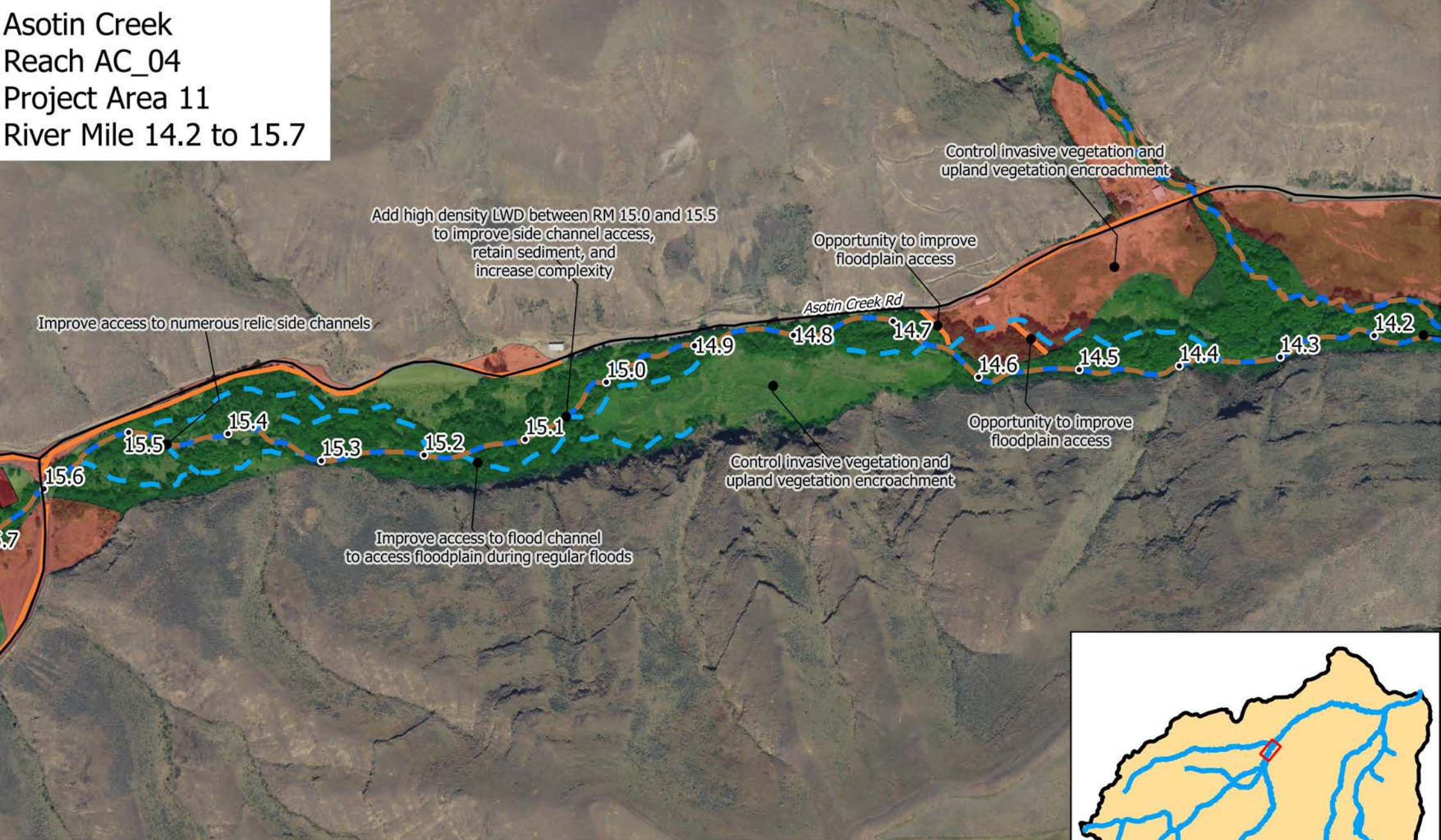


Legend

| | |
|-----------------------|---------------------------|
| ● Mile Markers | --- Side Channel |
| — Major Roads | □ Protect Processes |
| — Increase Complexity | ■ Connected Floodplain |
| — Levee | ■ Disconnected Floodplain |



Asotin Creek
 Reach AC_04
 Project Area 11
 River Mile 14.2 to 15.7



Legend

| | |
|-----------------------|---------------------------|
| ● Mile Markers | --- Side Channel |
| — Major Roads | □ Protect Processes |
| — Increase Complexity | ■ Connected Floodplain |
| — Levee | ■ Disconnected Floodplain |

