

**PROJECT: 16-2101 MON, ASOTIN IMW MONITORING YR10**Sponsor: Asotin Co Conservation Dist    Program: Salmon Federal Activities    Status: Active  
Project Start Date: 01/01/2017    Agreement End Date: 01/31/2018

Final Report Status: Accepted 02/07/2018

## Description

### PROJECT AGREEMENT DESCRIPTION

The Asotin County Conservation District proposes to support one year of ongoing monitoring in the Asotin Cr Intensively Monitored Watershed project (Asotin IMW). The project started in 2008 and is expected to run until 2019. Funds will support i) juvenile steelhead PIT tagging and mark-recapture surveys, and ii) habitat monitoring using the Columbia Habitat Monitoring protocol (CHaMP). These two monitoring efforts are being used to assess the effectiveness of large woody debris (LWD) to increase juvenile productivity in Asotin Cr. Three tributaries will be monitored: Charley, North Fork Asotin, and South Fork Asotin Cr. Funds are needed because the current IMW monitoring budget being provided by Pacific State Marine Funding Commission (PSMFC) has been reduced in 2016 to \$178,000 from an average of ~\$250,000. It is critical at this stage in the Asotin IMW to maintain the basic monitoring level to ensure its goals can be completed: namely to determine the effectiveness of LWD restoration methods, determine the causal mechanisms of habitat and fish responses, and to provide recommendations for implementing LWD restoration in other watersheds. Fish monitoring occurs in 12 sites, each 300-500m long, four in each tributary. Habitat monitoring occurs in 12 CHaMP sites in Charley and North Fork Asotin Cr, each 160-200m long. This project will support ESA listed steelhead recovery. All data will be made publicly available. Data analyses will be conducted with other funds.

### FINAL PROJECT DESCRIPTION

This project was an ongoing multi-year monitoring project to assess the effectiveness of stream restoration at increasing steelhead production. In 2017, we used these funds to conduct a complete round of habitat monitoring in Asotin Creek using the Columbia Habitat Monitoring Protocol (CHaMP) along with our other funding source (PSMFC). We completed 18 CHaMP sites from August-October 2017 and post-processed all the data. With the remaining monitoring funds we began analysis and summary of the CHaMP data to support a 10 year summary report for the IMW. The summary report will be completed in early 2018 and a copy will be provided to RCO.

## Narrative

This is an exciting time for the IMW – we have completed 5 years of pre-restoration monitoring, implemented 14 km of restoration treatment, and completed 5 years of post-treatment monitoring. We have detected significant changes in the habitat (e.g., increases in LWD, pools, and bar development) and detected changes in juvenile steelhead abundance (~30% increase in abundance across all three streams). We have calculated seasonal survival of juvenile steelhead from 2008-2016 and began to estimate the number of smolts produced from treatment and control sections and will be testing to see if there is a statistical difference between treatment and controls in the upcoming 10 year summary report. We expect to receive some federal funding for the next 4 years to help complete this project.

## Worksites

### Worksite #1: Astoin

**Worksite Address (Optional)**

Street Address

City

State, Zip

## Worksite Details

### Worksite #1: Astoin

**Worksite Name**    Astoin**WORKSITE DESCRIPTION**

The project will take place within the Asotin Creek watershed in the IMW study area, which includes Charley Creek, North Fork Asotin Creek, and South Fork Asotin Creek. Monitoring is the only activity occurring.

**Geographic Coordinates****From mapped point:**    Latitude    46.272834    Longitude    -117.293607**For Directions:**    Latitude    46.273813    Longitude    -117.292993**SITE ACCESS DIRECTIONS**

The Asotin watershed and IMW study area can be accessed from the town of Asotin by heading up Asotin Creek Rd.

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## Properties

The selected project has no properties

## Monitoring Metrics

### Worksite: Astoin (#1)

Targeted salmonid ESU/DPS (A.23)

The salmon ESU (Evolutionarily Significant Unit) or steelhead DPS (Distinct Population Segment) name that the project is targeting. For species where ESU/DPS name is not known or determined, use the species name with unidentified ESU (e.g., Chinook salmon - unidentified ESU).

Targeted species (non-ESU species)

Select one or more of the fish species that this project will benefit.

Priority in Recovery Plan

Priority in Recovery Plan. How is the project prioritized or justified by the above plan? (i.e. addresses a priority action, occurs in a priority area, or targets a priority species). Include page reference. If project was not identified in a Plan, enter 'None'

Number of Reports Prepared (E.0.e.1)

Number of reports prepared by the project on management or restoration data collected and RM&E outcomes. These reports could be progress reports, monitoring reports, or final reports associated with research. Reports should be uploaded into the PCSRF database (see A.19.a and A.19.b). If none, enter zero.

Name Of Report (E.0.e.2)

Name of report(s) (Author, date, title, source, source address. Endnote citation format). If no reports prepared, enter 'none'.

Project Identified in a Plan or Watershed Assessment (E.0.c)

Name of the Plan, Watershed Assessment or Recovery Plan that identifies the need or justification for conducting this project. (Author, date, title, source, source address. Endnote citation format). If project was not identified in a Plan, enter 'none'.

Number of Cooperating Organizations (E.0.d.1)

Number of organizations cooperating with this project by concurrently conducting field work on other components of a Comprehensive Strategy or Program. If none, enter zero.

Name Of Cooperating Organizations (E.0.d.2)

Name(s) of cooperating organizations. If none, enter 'none'.

Complement Habitat Restoration Project (E.0.b)

Name of the habitat restoration project that is complemented by this project. Record name of the habitat project complemented, project ID number and project sponsor. If project does not complement a habitat project, enter 'none'.

### Current Agreement

### Final

No Salmon ESU or Steelhead DPS

Chinook Salmon-Snake River Fall-run ESU

✓ Chinook Salmon-Snake River Spring/Summer-run ESU

Chinook Salmon-unidentified ESU

✓ Steelhead-Snake River Basin DPS

Steelhead/Trout-unidentified DPS

None

Unknown

Brook Trout

Brown Trout

Bull Trout

Cutthroat

Kokanee

✓ Rainbow

Searun Cutthroat

No Salmon ESU or Steelhead DPS

Chinook Salmon-Snake River Fall-run ESU

✓ Chinook Salmon-Snake River Spring/Summer-run ESU

Chinook Salmon-unidentified ESU

✓ Steelhead-Snake River Basin DPS

Steelhead/Trout-unidentified DPS

None

Unknown

Brook Trout

Brown Trout

Bull Trout

Cutthroat

Kokanee

✓ Rainbow

Searun Cutthroat

*Not Collected at Closure*

0

0

None

None

Snake River Salmon Recovery Board (2011 Version). Snake River Salmon Recovery Plan for SE Washington. Dayton, WA. Snake River Salmon Recovery

2  
Snake River Salmon Recovery Region Provisional Work Plan 2013-2018. Dayton, WA. Ecological Research (Asotin IMW) and WDFW.

Astoin IMW Restoration Treatments (11-1573, 12-1637, 15-1321)

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Asotin IMW Restoration Treatments (11-1573, 12-1637, 15-1321)

### Monitoring

Field projects that monitor effectiveness of restoration projects; salmonid abundance; biological or physical indices; salmonid harvests; or, water quality/quantity (flow). Monitoring projects collect fish abundance or habitat condition data usually over multiple years to assess trends or to assess effectiveness of restoration actions.

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Acres of watershed area monitored (E.1.b.2)	180.0	180.0
Number of acres of watershed area monitored by this project worksite (to nearest 0.1 acre). If there is more than one type of monitoring and the monitoring types overlap area, report total area for all types (i.e., do not double-count areas of overlap).		
Record Name Of Strategy/Program (E.1.d)	Seber, G.A.F. 1982. The estimation of animal abundance, 2nd Edition. Charles Griffin and Company, London	Seber, G.A.F. 1982. The estimation of animal abundance, 2nd Edition. Charles Griffin and Company, London
Record name of strategy/program (Author, date, title, source, source address. Endnote citation format).		
Square miles of water monitored (E.1.b.3)	0.01	
# square miles (to nearest 0.01 mile) of water area monitored.		
Stream Miles Monitored (E.1.b.1)	25.00	25.00
Number of miles of stream monitored for habitat condition, water quality, or salmonid abundance and productivity at this project worksite(to nearest 0.01 mile).	the Columbia Habitat Monitoring Program.	the Columbia Habitat Monitoring Program.
<b>Intensively monitored watershed (E.1.c.15)</b>		
Intensively monitored watershed.		
Total cost for Intensively monitored watershed	\$111,000	<i>Not Collected at Closure</i>
Enter the cost (to the nearest dollar) of this work type, as close as you can reasonably get it.		
# acres (to nearest 0.1 acre) Intensively monitored watershed (E.1.c.15.c)	180.0	180.0
# acres (to nearest 0.1 acre) of Intensively monitored watershed.		
# miles (to nearest 0.01 mile) Intensively monitored watershed (E.1.c.15.a)	25.00	25.00
# miles (to nearest 0.01 mile) of stream in the intensively monitored watershed.		

## Overall Metrics

	Current Agreement	Final
<b>Completion Date</b>		
Projected date of completion	12/31/2018	1/31/2018
Estimated date the scope of work will be completed.		
<b>Project Goals</b>		
Goals, purpose, and expected benefits (A.17)	The Asotin County Conservation District will use this grant to support one year of ongoing monitoring in Asotin Creek.	The Asotin County Conservation District will use this grant to support one year of ongoing monitoring in Asotin Creek. Asotin
Short description of the goals and purpose of the project and how it is expected to benefit salmonids or salmonid habitat.		

## Monitoring Costs

	Proposed	Final
<b>Worksite: Astoin (#1)</b>		
SPLIT OUT FINAL TOTAL BELOW	\$111,000.00	\$111,000.00
Monitoring Costs (E.1.a)	\$111,000	\$111,000
Difference		\$0

Final amounts include a pending billing  
Date of Last Released Billing 01/11/2018

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Billed Summary

Final amounts include a pending billing  
Date of Last Released Billing 01/11/2018

Category	Project Agreement		Totals To Date		
	RCO	Total	Expended	Non Reimbursable	Total Billed
Non-Capital					
Non-Capital Costs			86,000.00	25,000.00	111,000.00
Equipment					
Non-Capital Total	86,000.00	111,000.00	86,000.00	25,000.00	111,000.00
Total	86,000.00	111,000.00	86,000.00	25,000.00	111,000.00

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## Sponsor Match

	Proposed	Final
<b>Project Funding</b>		
PCSRF Federal Funds (A.10)	\$86,000.00	\$77,400.00
State Funds (A.11)		
Pending Billing - RCO Share Approved		\$0.00
Retainage - RCO amount retained		\$8,600.00
<b>Sponsor Match: Monetary Funding</b>		
Amount of other monetary funding (A.12)	\$0	\$0
Source of other monetary funding (A.12.a)	n/a	n/a
<b>Sponsor Match: Donated Un-paid Labor (volunteers)</b>		
Value of Donated Unpaid Labor (Volunteers) (A.13.a.2)	\$0	\$0
Source of Donated Un-paid labor contributions (A.13.a.4)	n/a	n/a
Number of hours volunteers contributed to the project (A.13.a.1)	Collected at Closure	0
Describe how the value of the volunteers was determined (A.13.a.3)	Collected at Closure	n/a
<b>Sponsor Match: Donated Paid Labor</b>		
Value of Donated Paid Labor (A.13.b.1)	\$0	\$0
Source of Donated Paid Contributions (A.13.b.2)	n/a	n/a
<b>Sponsor Match: Other In-kind Contributions</b>		
Value of Other In-Kind Contributions (A.13.c.1)	\$25,000	\$25,000
Source of Other In-Kind Contributions (A.13.c.3)	Integrated Status and Effectiveness Monitoring Program (ISEMP) for fish surveys and data evaluation.	Integrated Status and Effectiveness Monitoring Program (ISEMP) for fish surveys and data evaluation.
Description of other In-Kind contributions (A.13.c.2)		
Amount Total	\$111,000	\$111,000
Total Billed		\$111,000
Difference		\$0

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Attachments

PHOTOS (JPG, GIF)

FILES AND PHOTOS

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
No attachments match filter criteria						

Certify & Submit

Status History			
Report Status	Date	User	Note
Accepted	02/07/2018	Keith Dublanica	I have accepted the Final Report for PRISM, however, the project sponsor is aware there is a more comprehensive summary expected before project agreement closure. -kd
Submitted	02/06/2018	Megan Stewart	
Draft	01/25/2018	Megan Stewart	