PROJECT: 15-1485 MON, WHIDBEY BASIN POCKET ESTUARY CENSUS

Sponsor: Skagit River Sys Cooperative Program: Salmon Federal Projects Status: Active

Project Start Date: 12/09/2015 Agreement End Date: 12/31/2017

Final Report Status: Accepted 06/21/2018

Description

PROJECT AGREEMENT DESCRIPTION

Our project will census nearshore pocket estuary habitat within the Whidbey Basin using remote sensed imagery from a contemporary time period and GIS methods. Indicators measured include: 1) count of pocket estuaries accessible to juvenile salmon, 2) the extent of habitat by types, and 3) their landscape position (i.e., connectivity). The contemporary time period will depend on the imagery available but will likely be 2013 or 2014. This project will complement work being done by the Puget Sound Partnership (PSP) sponsored Skagit Monitoring Pilot Project (PSP Interagency Agreement #2015-64). Monitoring methods from this project are identical to the methods of the Skagit Pilot and follow the RITT Common Framework. The Skagit Pilot is being used to help develop regional guidance for monitoring of Common Indicators for Puget Sound Lead Entities. Pocket estuary metrics are included in the list of the Puget Sound Common Indicators. In the Skagit Pilot, we are measuring Whidbey Basin pocket estuary habitat for a time period representing habitat conditions around the time the Puget Sound Chinook Recovery Plan was adopted (~2005). With monitoring results from both time periods, the Whidbey Basin Lead Entities (including Island County) will have a trend result for Whidbey Basin pocket estuary habitat for the first decade of Puget Sound Chinook Recovery Plan implementation.

FINAL PROJECT DESCRIPTION

Our project census nearshore pocket estuary pocket within the Whidbey basin and west Whidbey shoreline using remote sensing imaging. Indicators measured included: 1) count of pocket estuaries accessible to juvenile salmon, 2) the extent of habitat by types, and 3) their landscape position (i.e., connectivity). The time period was 2014. This project complements work done by the Puget Sound Partnership Skagit Monitoring Pilot Project. Monitoring methods from this project followed the Skagit Pilot and RITT Common Framework, but added four additional steps to improve accuracy. The Skagit Pilot was being used to help develop regional guidance for monitoring of Common Indicators for Puget Sound Lead Entities. Pocket estuary metrics are included in the list of the Puget Sound Common Indicators. The Skagit Pilot measured Whidbey Basin pocket estuary habitat for a time period representing habitat conditions around the time the Puget Sound Chinook Recovery Plan was adopted (~2005). This project provided the Whidbey Basin Lead Entities (including Island County) with a trend result for Whidbey Basin pocket estuary habitat for the first decade of Puget Sound Chinook Recovery Plan implementation. This project also provided a baseline result for pocket estuaries for the west Whidbey shoreline for 2014.

Narrative

Project History: Island County identified a data gap in trends of habitat for pocket estuaries in the Whidbey basin as a high priority. We wrote the proposal to fill that data gap and in the proposal the geographic scope of the census was asked to be increased to include the west side of Whidbey island. GIS census methods were utilized from the previously completed Skagit pilot with four additional steps included to improve accuracy of results.

Project Changes: Enhanced geographic scope to include west Whidbey pocket esturaries.

Lessons Learned: Internal staffing issues and needed to extend the project deadline initially do to loss of staff due to job change, then loss of staff due to accidental death. We did not have redundancy of staff to complete the project without time extension.

Project Outcomes: We succerssfully completed the project and provided a final project technical report. The report can be used for methods for other pocket estuary monitoring and provides results for all pocket estuaries in the Whidbey basin and west Whidbey shoreline accessable to juvenile salmon.

Results: The assessment found 25 pocket estuaryies in the Whidbey basin and 10 in the west Whidbey shoreline assessible to juvenile salmon, for 2014. For the Whidbey basin, there was one more pocket estuary (Crescent Harbor) assessable to juvenile salmon than in 2005. Pocket estuary area increased by over 100 hectres in the Whidbey basin in the same time period primarily due to restoration at three pocket estuaries (Crescent Harbor, Turner's Bay and Lone Tree Lagoon). Other causes of habitat change were also detected including natural and human caused change agents. These are described in the final report.

Worksites

Worksite #1: WRIA 6- Island Watershed

Worksite Address (Optional)
Street Address
City
State, Zip

Worksite Details

Worksite #1: WRIA 6- Island Watershed

Worksite Name WRIA 6- Island Watershed

WORKSITE DESCRIPTION

Island County (WRIA 6) pocket estuaries within the Whidbey Basin (see map figure). Whidbey Basin is known as the inside waters from Possession Point to Deception Pass. Island County's part would be the shorelines of the east side of Whidbey Island and all of Camano Island. Activities will be conducted off-site, to include GIS nearshore status and trends habitat monitoring of pocket estuaries through digitizing from remote sensed imagery.

Geographic Coordinates

From mapped point:	Latitude	48.269166	Longitude	-122.592634
For Directions:	Latitude		Longitude	

SITE ACCESS DIRECTIONS

N/A

Properties

The selected project has no properties

Monitoring Metrics

Worksite: WRIA 6- Island Watershed (#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).

	Current Agreement	Final
	No Salmon ESU or Steelhead DPS	No Salmon ESU or Steelhead DPS
✓	Chinook Salmon-Puget Sound ESU	✓ Chinook Salmon-Puget Sound ESU
	Chinook Salmon-unidentified ESU	Chinook Salmon-unidentified ESU
✓	Chum Salmon-Puget Sound/Strait of Georgia ESU	✓ Chum Salmon-Puget Sound/Strait of Georgia ESU
	Chum Salmon-unidentified ESU	Chum Salmon-unidentified ESU
	Coho Salmon-Puget Sound/Strait of Georgia ESU	Coho Salmon-Puget Sound/Strait of Georgia ESU
	Coho Salmon-unidentified ESU	Coho Salmon-unidentified ESU
	Pink Salmon-Odd year ESU	Pink Salmon-Odd year ESU
	Pink Salmon-unidentified ESU	Pink Salmon-unidentified ESU
	Steelhead-Puget Sound DPS	Steelhead-Puget Sound DPS
	Steelhead/Trout-unidentified DPS	Steelhead/Trout-unidentified DPS

Targeted species (non-ESU species) Select one or more of the fish species that this project will benefit.	✓ None	None
	Unknown	✓ Unknown
	Brook Trout	Brook Trout
	Brown Trout	Brown Trout
	Bull Trout	Bull Trout
	Cutthroat	Cutthroat
	Kokanee	Kokanee
	Rainbow	Rainbow
	Searun Cutthroat	✓ Searun Cutthroat
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.	1	1
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.	2	2
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'.		

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.

Acres of watershed area monitored (E.1.b.2) 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).	600.0	2,180.7
Record Name Of Strategy/Program (E.1.d) Record name of strategy/program (Author, date, title, source, source address. Endnote citation format).		
Square miles of water monitored (E.1.b.3) # square miles (to nearest 0.01 mile) of water area monitored.		
Stream Miles Monitored (E.1.b.1) 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).	0	0
Habitat condition monitoring (E.1.c.11) Habitat condition monitoring.		
Total cost for Habitat condition monitoring Enter the cost (to the nearest dollar) of this work type, as close as you can reasonably get it.	$46,996	*Not Collected at Closure*
# acres (to nearest 0.1 acre) of watershed monitored for Habitat condition monitoring (E.1.c.11.c) # acres (to nearest 0.1 acre) of watershed monitored for Habitat conditions.	600.0	1,574.7
# miles (to nearest 0.01 mile) monitored for Habitat condition (E.1.c.11.a) # miles (to nearest 0.01 mile) of stream monitored for Habitat condition.	0	0

Final Report, Project 15-1485

Overall Metrics

	Current Agreement	Final
Completion Date		
Projected date of completion Estimated date the scope of work will be completed.	12/31/201(	12/31/201
Project Goals		
Goals, purpose, and expected benefits (A.17) Short description of the goals and purpose of the project and how it is expected to benefit salmonids or salmonid habitat.		

Monitoring Costs

Final amounts include a pending billing
Date of Last Released Billing 08/31/2017

		Proposed	Final
Worksite: WRIA 6- Island Watershed (#1)			
	SPLIT OUT FINAL TOTAL BELOW	$46,996.00	$47,056.25
Monitoring Costs (E.1.a)		$46,996	$47,056
	Difference		$0

Billed Summary

Final amounts include a pending billing
Date of Last Released Billing 08/31/2017

Category	Project Agreement RCO	Project Agreement Total	Totals To Date Expended	Totals To Date Non Reimbursable	Totals To Date Total Billed
Non-Capital					
Non-Capital Costs			39,355.00	7,701.25	47,056.25
Equipment					
Non-Capital Total	**39,355.00**	**46,996.00**	**39,355.00**	**7,701.25**	**47,056.25**
Total	39,355.00	46,996.00	39,355.00	7,701.25	47,056.25

Sponsor Match

	Proposed	Final
Project Funding		
PCSRF Federal Funds (A.10)	$39,355.00	$31,030.50
State Funds (A.11)		
Pending Billing - RCO Share Approved		$4,389.00
Retainage - RCO amount retained		$3,935.50
Sponsor Match: Monetary Funding		
Amount of other monetary funding (A.12)	$7,641	$7,701
Source of other monetary funding (A.12.a)		
Sponsor Match: Donated Un-paid Labor (volunteers)		
Value of Donated Unpaid Labor (Volunteers) (A.13.a.2)	$0	$0
Source of Donated Un-paid labor contributions (A.13.a.4)		
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*	
Sponsor Match: Donated Paid Labor		
Value of Donated Paid Labor (A.13.b.1)	$0	$0
Source of Donated Paid Contributions (A.13.b.2)		
Sponsor Match: Other In-kind Contributions		
Value of Other In-Kind Contributions (A.13.c.1)	$0	$0
Source of Other In-Kind Contributions (A.13.c.3)		
Description of other In-Kind contributions (A.13.c.2)		
Amount Total	$46,996	$47,056
Total Billed		$47,056
Difference		$0

Attachments

PHOTOS (JPG, GIF)

FILES AND PHOTOS

File Type	Attach Date	Attachment Type	Title	Person	File Name, Number Associations	Shared
	06/21/2018	Final project report	Beamer_etal_2018_WBWWPocketEstuary 2014.pdf	JeffreyM	Beamer_etal_2018_WBWWPocketEs… 2014.pdf, 350914 Final Report, 06/21/2018, Accepted	✓

Certify & Submit

Status History

Report Status	Date	User	Note
Accepted	06/21/2018	Keith Dublanica	Thank you for submitting the final report and final billing for closing out this project. We appreciate the detailed documentation loaded and, please load any additional project elements as "monitoring activity" i.e. points and polygons, as appropriate.
Submitted	06/21/2018	Jeffrey Meyer	Submitted final report and final billing.
Draft	04/10/2018	Keith Dublanica	