

Final Report

Project #07-1589, Origin of Juvenile Chinook in WRIA 6 Nearshore

Submitted by Karen Wolf on 07/21/2011

Accepted by Mike Ramsey on 07/23/2011

CONTACTS

Primary Sponsor: Skagit River Sys Cooperative

Lead Entity: Island County LE

Managing Agency: Rec. and Conserv. Office

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DESCRIPTION OF THE COMPLETED PROJECT

Project Start Date: 01/01/2008

FundingEnd Date: 06/30/2011

RCO Closure Date:

This assessment provided the data and analysis to make habitat-type-specific priorities for Puget Sound listed Chinook salmon within WRIA 6. In consultation with the WRIA 6 Lead Entity TAG, the results of this assessment were translated into ranking criteria for projects evaluated for funding.

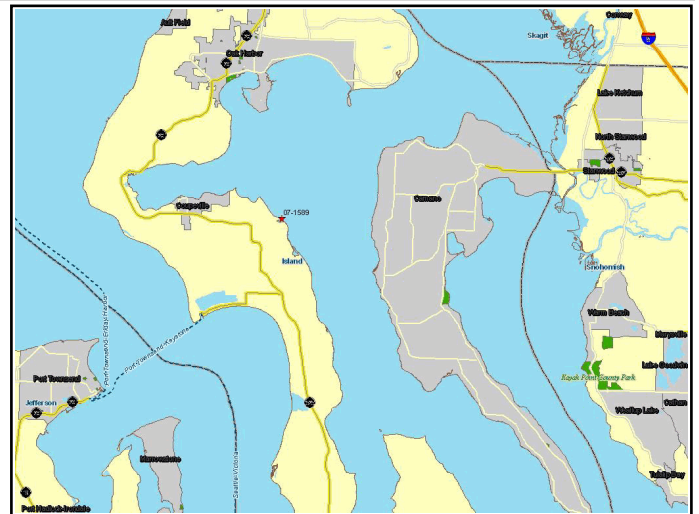
The principal goal of this project is to inform the next update to the WRIA 6 Salmon Recovery Plan by providing a WRIA-wide analysis and synthesis of salmon habitat use (distribution by habitat type) and salmon origins. Filling these data gaps will empower the Lead Entity to evaluate and prioritize restoration and protection actions based upon known habitat use and/or for a targeted population. Thus, managers will know what they are accomplishing towards salmon recovery with their work plans. The specific objectives accomplished by this study are: 1) Collected wild juvenile Chinook salmon in spring and summer from a range of locations, times, and estuarine habitat types in WRIA 6 using appropriate sampling methods; 2) Identified the origins of juvenile Chinook salmon obtained from each space/time stratum using microsatellite DNA analyses; 3) Compiled and synthesized all existing use juvenile Chinook salmon data for Island County (Stillaguamish Tribe, Wild Fish Conservancy, NOAA Fisheries), and included these data in final analysis; 4) Provided local, regional, and international managers with information on stock-specific use of estuarine habitats by juvenile Chinook.

SITE LOCATION

General Area of Project: Nearshore waters of Island County, Puget Sound

Waterbodies:

Cong District: 02
County: Island
HUC: KITSAP
Leg District: 10
Salmon Recov Reg 05: Puget Sound
Section:
Township/Range:
WAU: WHIDBEY IS
WRIA: Island



Sponsor Clarifications:

Sponsor verified the above information is correct and complete.

PROJECT NARRATIVE

The following tasks were completed per the WRIA 6 Origins of juvenile Chinook in WRIA 6 Nearshore study design and work plan:

1. We collaborated with existing fish sampling efforts (SRSC, Lummi Nation, Tulalip Tribes, NOAA, and Stillaguamish Tribe) and partnered with volunteer groups (e.g., WSU Beachwatchers) to collect juvenile Chinook tissue samples from areas throughout WRIA 6 in 2008.
2. We conducted genetic analysis using DNA collected from over 1,700 different juvenile Chinook salmon in the Whidbey Basin and Admiralty Inlet sides of WRIA 6 to determine their river of origin (or population grouping) by area within WRIA 6 as well as by habitat type: small coastal streams, pocket estuaries, shorelines, offshore. The observation of juvenile Chinook salmon rearing in small non-natal coastal streams was a new finding and we expanded our understanding of this topic by leveraging work with two existing monitoring programs within the Whidbey Basin (see bullet 5).
3. As requested by Washington State RCO staff, we presented preliminary findings at RCO Salmon Recovery Conference on April 16, 2009.
4. We met with WRIA 6 Technical Advisory Group members on March 24, 2010 to report results of fish use and Chinook origin (appendix 1).
5. We leveraged work sponsored by Tulalip Tribes and SRSC's longterm nearshore monitoring to better understand the use of small (often seasonally flowing) coastal streams by fry migrant Chinook in the Whidbey Basin and conducted genetic analysis on fish sampled in 2009 (appendix 2).
6. As requested by Washington State RCO staff, we included WRIA 6 results in a presentation of juvenile Chinook origins throughout Northern Puget Sound in order to observe regional differences in the juvenile Chinook using nearshore habitat by 4 regions: San Juans, Bellingham/Samish, Whidbey Basin, and Admiralty Inlet (Appendix 3).

EQUIPMENT

Item Description	Model #	Purchase Date	Amount	Serial #
Olympus Digital Camera	1030 SW	06/11/2008	\$389.30	G06516273

OVERALL PROJECT COSTS

Funding Formula:	Requested		Original		Final	
Puget Sound Acq. & Restoration:	\$222,470.00	(85%)	\$222,470.00	(85%)	\$222,470.00	(85%)
Sponsor Match:	\$39,414.00	(15%)	\$39,414.00	(15%)	\$39,414.00	(15%)
Total:	\$261,884.00	(100%)	\$261,884.00	(100%)	\$261,884.00	(100%)
Paid To Date:	\$222,470.00				Last Released Billing: 07/27/2011	
Remaining RCO Funds:	\$0.00				Pending Billing: No	
Advance Balance:	\$0.00		Match Bank:	\$0.00	Number of Billings: 19	
Admin Limit:	\$0.00		Admin Spent:	\$0.00		
A&E Limit:	\$0.00		A&E Spent:	\$0.00		
Billed Cost Summary:	Original Agreement		Expended	Non-Reimbursable		Total Billed
Non-Capital						
Non-Capital Costs			\$222,275.35	\$39,414.00		\$261,689.35
Equipment			\$194.65			\$194.65
Non-Capital Total	\$261,884.00		\$222,470.00	\$39,414.00		\$261,884.00
Total	\$261,884.00		\$222,470.00	\$39,414.00		\$261,884.00

Project Cost Metrics:	Original Agreement	Final
PCSRF Federal Funds:		
State Funds:		\$222,470.00
Pending Billing - RCO Share Approved:		
Amount of other monetary funding:		\$39,414.00
Value of Donated Unpaid Labor (Volunteers):		\$0.00
Value of Donated Paid Labor:		\$0.00
Value of Other In-Kind Contributions:		\$0.00
Project identifier for the other monetary funding:		N/A
Source of In-Kind contributions:		N/A
Source of other monetary funding:		N/A
Number of hours volunteers contributed to the project:		0
Describe how the value of the volunteers was determined:		N/A
Description of other In-Kind contributions:		N/A

PROJECT METRICS

	Original Agreement	Final
Restoration Planning And Coordination Project		
Plan/assesment has been used to guide restoration actions (yes/no):		No
Plan/assessment identifies necessary actions needed to meet goals (yes/no):		No
Plan/assessment identifies/prioritizes factors limiting production (yes/no):		Yes
Plan/assessment incorporates biological goals (yes/no):		Yes
Completion Date		
Projected date of completion:		06/30/2011
Jobs Created		
Number of jobs created by this project:		2.0
Project Goals		
Goals, purpose, and expected benefits:		The goal of the project is to increase/improve information to help select projects that have a high certainty and benefit. The objective of the project is to fill data gaps identified in the lead entity strategy.

WORKSITE #1: WRIA 6 Nearshore

Worksite Description: This is a nearshore assessment using beach seining where the sites are spread around Island County

Driving Directions: Exact sample sites have yet to be determined.

Coordinates for Worksite Directions - Latitude: 0.00 Longitude: 0.00

Sponsor Clarifications:
Sponsor verified the above information is correct and complete.

WORKSITE #1 COSTS

Worksite Billed Cost:	Estimated	Expended	Non-Reimbursable	Total Billed
Equipment	\$261,884.00	\$194.65		\$194.65
Non-Capital Costs	\$261,884.00	\$222,275.35	\$39,414.00	\$261,689.35
Worksite Total	\$523,768.00	\$222,470.00	\$39,414.00	\$261,884.00

Worksite Costs by Category:	Original Agreement	Final
Habitat Assessment Funding:		\$261,884.00

WORKSITE #1 METRICS

	Original Agreement	Final
Targeted salmonid ESU/DPS:		Chinook Salmon-Puget Sound ESU
Targeted species (non-ESU species):		Bull Trout, Searun Cutthroat
Area Encompassed (acres):		133395.2 <i>Acreage of Island County</i>
Salmonid Habitat Assessment / Inventory		
Habitat surveys		
Acres of habitat assessed:		5220.0 <i>Length of shoreline surveyed multiplied by distance from shoreline (approximately 100 feet).</i>
Amount Of Habitat Assessed That Needed Restoration:		125.0 <i>Total guess.</i>
Type of Habitat Assessment:		Estuarine/nearshore habitat conditions

PROPERTY DESCRIPTION (Island County Shoreline)

Activity:	Restoration
Control & Tenure:	
Instrument Type:	
Timing:	Proposed
Term Length:	Fixed # of years
# yrs:	
Expiration Date:	
Landowner Type:	Private
Note:	

Sponsor Clarifications:

PROPERTY COSTS (Island County Shoreline)

Property Billed Costs:	Estimated	Expended	Non-Reimbursable	Total Billed
Incidentals	\$3,000.00			

Sponsor Clarifications:

SPONSOR CERTIFICATION

- ☒ I certify that this project has been completed in accordance with the project agreement.
- ☒ I certify that, to the best of my knowledge, the information in the Final Report is true and correct.

Submitted by Karen Wolf on 07/21/2011