

FINAL REPORT

Please submit Final Report to:

Dianne Ramage
Pacific Salmon Foundation
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Vancouver, BC

Proponent and Project Background

Legal Name: Squamish River Watershed Society

Address, Mailing: Box 1791, Squamish, BC, V8B 0B3

Address, Courier: 41820 Rayburn Road, Brackendale, BC, V0N 1H0

Project Manager: Edith Tobe

Title: Executive Director

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List Subcontractors and contact information: Tenderfoot Hatchery

Project Information

Amount Requested from the PSF: \$24,755.26

Total Project Value: \$54,780.26

Is this project a result of a previous PSF Project?

YES NO

Project Start Date: February 15th, 2007

Project End Date: May 30, 2007

Please attach proposal, maps and other relevant document

Project Title: Squamish and Cheakamus River Chinook Salmon - Coded Wire Tagging

Project Activity Type:

Habitat Assessment
Habitat Rehabilitation

Stock Assessment
 Stock Rehabilitation

Education and Awareness
Stewardship and Community Planning

Target Species: Chinook salmon

Partnerships:

Organization	Contact	
Fisheries and Oceans Canada	Matt Foy	Joe Tadey
Squamish Nation	Randall Lewis	
District of Squamish	Chessy Knight	
CN Rail	Luanne Peterson	

Project Relevance and Significance

Cheakamus and Squamish River Chinook salmon are at low levels of abundance due to fishery and habitat impacts and due to the direct kill of both adult and juvenile chinook salmon by the release of sodium hydroxide into the Cheakamus River during the August, 2005 train derailment. CN Rail is partnering with DFO to incubate, rear and release, Cheakamus River Chinook salmon into the Cheakamus River for a minimum two year period. This is in addition to DFO's annual release of Squamish River Chinook salmon smolts from sea pen sites in Howe Sound.

Coded wire tagging and head recovery provides necessary information on harvest and catch distribution and marine survival. No CWT tagging of Squamish River Chinook salmon has occurred over the last decade and the data gap has been identified as a high priority in the SSRP and the SSRP Stock Assessment Framework. The CWT and a creel survey will be conducted in tandem to address this gap and to inform the recovery planning process.

A partnership has been formed between DFO, CN and the Squamish River Watershed Society to place coded wire tags in 200,000 Cheakamus and Squamish River Chinook salmon smolts for each of the next two years. Half were released into the Cheakamus River and half of these tagged smolts will be released into Howe Sound. CN and DFO have agreed to provide funds and support for 50% of the cost of this program and the Pacific Salmon Foundation was being asked to provide the other 50% of project costs.

This is to offset the additional cost to tag the Squamish Chinook.

This project portion was for the 2006 brood year program and a further application will be made next year to fund a similar 2007 brood year program.

Squamish Nation, in partnership with DFO and CN will contribute resources to monitor the return of coded wire tagged adult Chinook to the Squamish River watershed as part of this assessment program in the return years beginning in 2008.

This program will provide critical information for the future management and enhancement of Squamish and Cheakamus River Chinook salmon including:

1. Contribution of Squamish watershed Chinook to commercial, sport and First Nation fisheries.
2. Proportion of Squamish River Chinook salmon escapement that originates from hatchery programs will be estimated based on CWT adult incidence and distribution and mass mark applications.
3. Relative effectiveness of the two hatchery strategies studied to compare direct river release survivals against survival to adult of smolts released from sea pen site in Howe Sound.

The information gathered over the next seven years, from this assessment, will guide future management decisions regarding the operation of the Tenderfoot hatchery Chinook salmon program and how harvests are managed in the various fisheries that are found to impact directly on Squamish River Chinook salmon. These were identified as high priorities as identified in the Squamish River Watershed Salmon Recovery Plan and by DFO and Squamish Nation.

What species, life stage does this project target: Chinook salmon smolts for the 2006 brood year.

Describe whether the specific objectives were delivered:

Objective # 1 Coded wire tag 200,000 Chinook smolts – accomplished at Tenderfoot Hatchery.

Objective # 2 Release the 100,000 tagged smolts to both the Cheakamus River and from the Howe Sound seapen site in the spring of 2008 – pending for the upcoming year.

Objective # 3 Provide survival and fishery interception information that will assist in informing future management decisions regarding Squamish River chinook salmon – pending for upcoming year.

If required, was the design been approved by a Professional Engineer and/or Biologist? YES NO

Is this project utilizing recognized or emerging technologies? YES NO

If so please provide supporting argument for its selection:

Coded wire tagging is the major tool used for the management of Pacific Salmon harvest and production on the Pacific Coast since the 1970's.

Will this project require long-term maintenance? YES NO

If yes, what are the anticipated annual costs?

Who will fund it?

DFO collects coded wire tagged salmon throughout the marine and freshwater areas of British Columbia and has agreements with the United States to share similar information collected by that country.

Performance Expectations
List as described in the Request for Proposal

Measures of Success

Describe any specific objective standards, quantifiable criteria and quality control measures that will be used to assess the actual performance of this project against expectations. Provide a monitoring and evaluation plan that is appropriate and achievable for quantifying fish benefits:

- Successful application of coded wire tags on 200,000 Chinook salmon smolts.
- Successful release of 2006 brood year Chinook salmon smolts.
- Successful partnering with CN Rail to expand the complementary seapen CWT by providing tags.
- Ongoing partnering with DFO and Squamish Nation to undertake data collection in 2008.

Milestones

Break the project into discrete sequential tasks, and provide the expected task completion date

Task	Completion Date
Coded wire tagging of 200,000 chinook smolts	March, 2007
Release of CWT Chinook smolts into Cheakamus River and Howe Sound.	May, 2008
Recovery of CWT 2006 brood Squamish River chinook salmon	2008-2011

Final Project Budget

Labour

Service	# of People	Daily Rate	Total # of Days	Total Cost	SSRP Contribution
Project Manager	1	475/day	2	1425	
Senior Biologist (DFO)	2	600/day	4	4800	
Project Technician (DFO)	1	200/day	20	4000	
Mark technicians	3			24755.26	24755.26
Tag Recovery Program 2008-2011 (estimate)					
Labour Sub-Total A				34980.26	24755.26

Materials & Equipment

Item	Details	# of Units	Unit Cost	Total Cost	SSRP Contribution
Coded Wire tags	Purchase by CN	200,000		17,000	0
Total Materials and Equipment Sub-Total B				17000	0

Administration and Overhead Costs

Item	# of Units	Unit Cost	Total Cost	SSRP Contribution
Pay Roll processing/invoicing/Project Budgeting			\$1925	

Item	# of Units	Unit Cost	Total Cost	SSRP Contribution
Office space/computers			\$500	
Telephone/Fax/Cell phone			\$100	
Office Supplies (printer cartridges, etc)			\$100	
Printing/Photocopying			\$25	
Courier/Postage			\$50	
Miscellaneous (i.e. software)				
Insurance			\$100	
Administration (Total BCRP Contribution to Administration is not to		Sub-Total	\$2800	
TOTAL EXPENSES TOTALS (A+B+C)			\$54780.26	\$24755.26

Non--PSF Contributions

The term revenue is defined here to include cash, in-kind and volunteer contributions.

Non-PSF Revenue Sources	Letter of Confirmation Attached	Cash	In-Kind	Volunteer	TOTAL
Fisheries and Oceans			8800		8800
Squamish River Watershed Society			4225		4225
Squamish Nation (monitoring/enumeration)					
CN Rail			17000		17000
Non-PSF Totals			30025		30025

Certification

I certify that the information provided in this application, including all attachments, is accurate to the best of my knowledge and that I am authorized to sign on behalf of the stated organization.

Signature:

Edith B. Tobe

Date: July 24, 2007

(Authorized Signatory)

Name: _

Edith B. Tobe
(Print Name)