

Fraser Salmon & Watersheds Program



2008 Final Report Template

FSWP File Number*	08 HPR D 35
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* Please use the FSWP File Number provided in previous FSWP 2008 project correspondence

Contact Information

Sponsoring Organization's Legal Name

Musqueam Indian Band

Are you a federally registered Charity, Non-profit organization or Business (Yes /No)? No

If yes, please indicate which.	<input type="checkbox"/>	Charity	<input type="checkbox"/>	Non-profit organization	<input type="checkbox"/>	Business
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Registration number	<input type="text"/>	GST number	<input type="text"/>
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Are you a registered Society (Yes / No)?	<input type="checkbox"/>	Society Registration number	<input type="text"/>
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Mailing Address

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Street Address (if different from above)

Project Manager¹

Name: Bob Guerin Title: Fisheries Manager

Affiliation: Musqueam Indian Band Phone: (604) 664-7664

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¹ All correspondence will be directed to the Project Manager.

Alternate Project Contact

Name: Title:
Affiliation: Phone:

Fax: () E-mail:

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Partners / Subcontractors	
Name: Marc Gaboury	Affiliation: LGL Limited
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Name:	Affiliation:
Phone: ()	E-mail:

Project Information

Project Title					
Prioritization of and Rehabilitation Designs for Fish Migration Impediments in Fraser River Tributaries West of Brunette River					
Project Location					
Lower Fraser River					
Amount Requested	40000	Total Project Value	45978	Non-FSWP funds ²	5978

² Non-FSWP funds include both cash and in-kind funding. In-kind funding refers to all non-cash contributions such as equipment, supplies, labour, etc. Please refer to Budget Section for further details.

Project Summary

Please provide a single paragraph describing your project, its objective, and the results. As this summary will be used in program communications, clearly state the issue addressed and avoid overly technical descriptions. Do not use more than 300 words.

The primary goals of the project were to identify man-made impediments or barriers (i.e., culvert or flood box) to salmon migration in selected tributaries to the Fraser River west of Brunette River and to recommend rehabilitation alternatives for each high priority culvert or flood box structure.

Fish distributions, existing habitat characteristics and condition, length of habitat upstream of floodbox and importance of habitat for salmon were described for each of the 13 man-made fish passage impediments. Five high priority fish migration impediments were investigated in greater detail. They included: Cohilukthan Slough, Crescent Slough, 96th St Canal, Fleetwood Creek, and McLean Creek. Operational regimes for several of the sites were evaluated for potential fish passage capability during adult coho migration, coho smolt immigration and Chinook fry immigration / egress. The recommendations ranged from the straight forward (i.e., maintenance of the structure or replacing the flapgate) to the more complex (i.e., reconfiguration or reorientation of the structure, replacing all or parts of the structure with more fish-friendly technology, etc.). For each of the five priority sites, constraints to modifying the physical structure or floodbox operation were determined and conceptual engineering designs and preliminary cost estimates were provided for potential replacement with a self-regulating tidal gate.

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OPTIONAL If your project lends itself to sparking interest through a compelling sound bite (for potential use in FSWP media communications), please tell us what that sound bite would be. Do not use more than 150 words.
Species and life stage(s) the project targets: please list
Coho, chinook, chum, and steelhead
Watershed(s) the project targets: please list
Lower Fraser River and its tributaries

Project Deliverables and Results

- Paste in the deliverables outlined in your Detailed Proposal (question #3 under project 'relevance and significance' heading) into the table below. Then, please list the results associated with each deliverable.
- Please include copies of any relevant communications products (brochures, posters, videos, website addresses etc.) resulting from this project.

Deliverable	Result
Compilation of fish population, habitat assessment and structure impediment data in up to 15 Fraser River tributaries west of Brunette River,	A total of 13 sites in the Fraser River between the mouth and Pitt River were assessed, and pertinent information on each was compiled.
Development of a prioritized list of stream sites where man-made impediments to fish migration should be rehabilitated or replaced,	A prioritized list of fish passage impediments was determined based on: feasibility and potential of rehabilitation success, cost, nature of impediment to migration (i.e., velocity barrier, excessive outlet drop, flap gate type or

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	operation, pump type or operation, etc.), salmon species and other salmonids affected, relative importance of stream to salmon, and type, condition and length of habitat available upstream of the barrier/impediment.
Rehabilitation alternatives and recommendations for up to 15 high priority sites where impediments to migration have been identified.	Rehabilitation alternatives that included operational and structural measures were recommended for five high priority sites. Conceptual designs and preliminary cost estimates were provided for the structural modifications.

Project Effectiveness

Please evaluate the effectiveness of the project, using the objective standards, quantifiable criteria and/or quality control measures identified in your Detailed Proposal (under question #1 in the 'performance expectations' heading).

Habitat assessments and data recording followed specified methodologies and standards outlined in *Fish Habitat Assessment Procedures* by Johnston and Slaney (1996). Two engineering companies very experienced in the design, installation and operation of floodbox structures were involved in the detailed examination of the five high priority sites. Discussions with Municipal engineers, drainage managers, provincial water resource engineers and DFO personnel were held to explore alternative operational and structural measures, and to gauge the feasibility of implementing these modifications to the floodboxes.

What are the top three lessons learned from this project that would be important to communicate to others doing similar work throughout the Basin?

- 1) Communicate the objectives of your project to as many stakeholders who have responsibility for management of these structures or who are likely to be concerned with your project's results.
- 2) Involve these stakeholders as the project progresses so they can offer opinions and provide more focus on what is required for their review and approval processes.
- 3) Complete comprehensive data reports that summarize all findings so that future workers have quick access to salient information.

Project Effectiveness

Please describe how your project has addressed each Priority Activity identified in your Detailed Proposal.

Priority Activity ¹	How the Priority Activity has been Addressed
"innovative initiatives that address increased public involvement" and "collaboration and relationship building"	Key stakeholders, including First Nations, streamkeepers, fisheries agencies and potential funding partners of habitat rehabilitation, were brought together around a fundamental issue for Pacific salmon – identifying and resolving access issues for anadromous salmon that are migrating to and

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	from historic spawning, rearing and overwintering areas in tributaries to the lower Fraser River.
“initiatives which protect and restore habitat for salmon...”	This project identified and provided rehabilitation designs for specific culvert and flood box sites that are significant impediments to migrating salmon in five high priority watersheds. The implementation of these rehabilitation projects will achieve significant habitat gain/recovery at relatively low construction and low maintenance costs.

¹Please paste each priority activity identified in your Detailed Proposal in the space provided.

Further Comments

Please provide any further comments including recommendations for future conservation efforts and suggestions for helping partners to meet the goals of the Fraser Salmon and Watersheds Program. If your project produced a narrative or scientific report or additional project products (e.g. maps, photos), attach them as an appendix.

Submission Instructions

Please send your Final Report electronically to your designated FSWP Staff Contact. If you are uncertain who this person is or how to contact them, please contact Tiffany Pither, FSWP Administrator.

Email: tpither@psf.ca

Phone: (604) 664-7664 Ext 119