

# Fraser Salmon & Watersheds Program



## 2011/12 FINAL REPORT

**FSWP File Number\*** 35/FSWP 1152 HWRS LTR

\* Please use the FSWP File Number provided in previous FSWP project correspondence.

### 1. Project Information

#### 1.1. Project Title

Nahatlatch River – Beaver Control Structures to Improve Fisheries Access to Spawning and Rearing Habitat – Phase 2

#### 1.2. Proponent's Legal Name

Boothroyd Indian Band

#### 1.3. Project Location

Kahmoose BC – Boothroyd Indian Band

#### 1.4. Contact for this report

Name: Lawrence Campbell

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#### 1.5. Funding Amount

Original Approved Grant Amount:	Total FSWP Expenditures:	Final Invoice Amount:	Final Non-FSWP leveraging, including cash and in-kind:
48,000 -	59055.	31,200	15443. x 2

### 2. Project Summary

Please provide a single paragraph describing your project, its objectives, and the results. As this summary may be used in program communications, clearly state the issue(s) that were addressed and avoid overly technical descriptions. Maximum 300 words.

The purpose of this project was to improve access for salmonids into rearing/spawning channels located at various spots within the Nahatlatch River watershed. The locations were chosen based on previous works which were undertaken during the Forest Renewal BC (FRBC) to improve the overall rearing/spawning opportunities for coho and Chinook salmon, which were completed within the last ten years as well as sites delineated from last year's project. This year represents Phase 2 of the project. Overall, this year's project resulted in the construction of one instream anti-beaver device, a culvert assessment to determine the overall impacts of culverts within the watershed in terms of access to upstream habitat from the Nahatlatch River. Our project also resulted in the enumeration of coho smolts out of the 17km Nahatlatch River spawning channel which has been an indicator of overall outmigration of smolts for the watershed.

**OPTIONAL:** Please give a short statement (up to 100 words) of the most compelling activity or outcome from your project.

One of the most compelling activities resulting from our project was the assessment and documentation of problem culverts along a 45km stretch of mainline hauling road running adjacent to the Nahatlatch River. From this assessment, we determined that there were approximately 6 problematic culverts that were impeding the upstream migration of fish. The resulting obstructions were denying access to over 1km of favorable habitat upstream of the mainline into which were in some cases, determined to be high value spawning and rearing habitat.

### 3. Final Project Results and Effectiveness

3.1 Please copy THE EXPECTED DELIVERABLES from your detailed proposal and insert into this table. Add additional rows as needed. Then describe the FINAL DELIVERABLES (the tangible end products resulting from this work) associated with each expected Deliverable.

If FINAL DELIVERABLES differ from the original EXPECTED DELIVERABLES, please describe why, and the implications for the project.

EXPECTED DELIVERABLES	FINAL DELIVERABLES
1. Complete Assessment on Salmonid Out-Migration out of Critical Habitat located along the 17mile Rearing/Spawning Channel (Spring Assessment)	Final report completed
2. Build Beaver Box to Ensure Access is Maintained into Critical Habitat as well as remove problem beaver dam(s) impeding fish access	Final report completed
3. Complete culvert assessment	Final report completed

3.2 Please evaluate the EFFECTIVENESS of your project in achieving Project Objectives. Identify the indicators you have used to measure the effectiveness of your project. Please include any notable successes or challenges.

Our project was very effective in achieving the project objectives. The indicators used to determine the success of our project was the overall data that was tabulated from our fieldwork. This includes the raw and tabulated data for the fisheries enumeration, the culvert assessment and the completed construction of the anti-beaver box. Notable successes include the completion of an anti-beaver box which was hard to complete given on-site hydrological conditions and physical constraints within the stream channel. The culvert assessment was also a notable success as the total linear length of our assessment was increased due to the effectiveness and professionalism of the Boothroyd Indian Band fisheries crews

**3.4 If applicable, please describe how your project has achieved one or more of the following supported processes (Section 2.1 of RFP; section 8 of detailed proposal template). If results differ from those originally anticipated, please describe.**

Engagement of First Nations. Please specify who, and in what capacity.	The Boothroyd Indian Band completed the work and overall management of the project
Active partnerships with one or more organizations.	
Engagement and participation of diverse and under-represented groups.	
Relationship building, as a foundation for sustainable, enduring activities.	The project allowed for relationship building between the band, DFO as well as other stakeholders including private companies and land owners.
Capacity building, including mentorship models, leadership training and skills development.	The project allowed to band to further understand the fisheries distribution along the Nahatlatch River and the correlation between road use and the upstream limitation to fisheries movement
Recognition and support of champions and their initiatives.	
Opportunities to influence policy and decision making,	The project will allow for a better understanding of roads related issues and therefore, help the band make educated decisions on future road access into their traditional territory

**3.5 Please describe how the benefits of this project will be sustained and/or be built upon into the future. What are the planned next steps, or recommendations for further work, if applicable?**

The project will be sustained by the knowledge we have acquired both in preventing beavers from restricting the upstream movement of fish as well as an ability to assess future road works in regards to upstream fish passage.

**3.6. What are the top three lessons learned from this project that could be useful to communicate to others doing similar work in the Basin?**

1. Culvert assessments are imperative in determining fish obstructions and overall productivity of a watershed
2. Fisheries enumeration can play an important role in determining the overall health of a watershed
3. Beaver boxes can have a positive benefit to fisheries populations if properly installed

**REQUIRED: Attach all DOCUMENTATION of Final Deliverables, and LIST attachments in Section 8. These may include technical reports, maps, photos, evidence of communications, lists of meeting participants, etc.**

#### **4. Outreach and Communications**

**Please describe how you have communicated project activities and results within local and basin-wide communities, across organizations and/or to decision makers.**

**Please list and attach copies of (or links to) any communications materials from these efforts that you have not previously submitted.**

Project communications were achieved by having band meetings with council and chief. At these meetings, we presented findings to date including overall summaries of our work and other fisheries observations.