

2010/11 FINAL REPORT

FSWP File Number*	10 XX 42 SIFM
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* Please use the FSWP File Number provided in previous FSWP project correspondence.

1. Project Information

1.1. Project Title

NSTC In-Season Salmon Abundance and Health Indicator Program

1.2. Proponent's Legal Name

Northern Shuswap Tribal Council Society

1.3. Project Location

Churn Creek – Cariboo Chilcotin Region

1.4. Contact for this report

Name: Gord Sterritt

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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:
\$ 85,610.00	\$ 83,206.50	\$ 14,718.50	\$ 39,317.67

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 NSTQ value this project as a component of their involvement in fisheries management through its validity for assessing salmon enroute to the spawning areas, the data collected could prove valuable to the diminishing salmon stocks returning to and/or passing through the traditional territories of the Northern Secwepemc te Qelmucw (NSTQ). The data being collected could inform future fisheries as well as illustrate and verify theories on run dynamics. The success of this year's project comes with the collection of necessary biophysical data and completion of the five goals of the project, as follows:

1. Continue testing the fishwheel at the upstream location used in 2009 near the Gang Ranch Bridge.
2. Incorporate improvements to make the wheel more "fish friendly".
3. Improve upon tagging for sockeye, chinook and coho including renewed efforts in upstream tag recovery.
4. Continue testing the feasibility of the wheel as a live capture and release platform for the collection of biophysical information from all species of fish caught.
5. Increase the capacity of the NSTC Fisheries Program through training, employment, project management and tasks associated with successful completion of this project.

For data collected, this was the most successful season of the operation of this apparatus in the Fraser River at its current location.

In 2010 the NSTC fishwheel successfully live captured 2104 sockeye (916 female, 1181 male and 7 unknown) during the study period. Other species captured were 17 chinook and 9 coho. No sturgeon was captured in 2010.

In successfully meeting these goals the NSTC Fisheries program continues to progress in developing tools for which management can be better informed.

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

The most compelling activity was the ability to tag 596 sockeye, 13 of 17 chinook and 7 of 9 coho captured. Several of the tags from each species were recovered in upstream fisheries and enumeration projects. Signalling the success and survival of fish tagged at the wheel site.

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
<p>1. Further develop and utilize real-time data to estimate abundance and monitor the health of salmon migrating to their natal streams</p>	<p>This was achieved in the increased collection of data that also allowed for the ability to observe abundance on a daily basis. The collection of data on the health of the salmon as they migrated upstream was very thorough in 2010 as technicians recorded and photographed almost every wound and state of the fish that were captured.</p>
<p>2. Improve information sharing amongst various parties and agencies that are considered project collaborators</p>	<p>Daily observations were quickly shared amongst upper Fraser First Nation groups if extraordinary conditions were observed. Observations and data were also relayed to the watershed on FRAFS weekly calls through most of the season. The NSTC also collaborated with LGL Ltd. on the radio telemetry project that was implemented in 2010. NSTC Fisheries Technicians participated by maintaining and downloading from 4 stations in the Upper Fraser.</p>
<p>3. Generate a quality comparison between 2010 and the previous two seasons of data collection.</p>	<p>2010 was a very efficient season for this project and the data collected reflects this. There were clearly less breakdowns, resulting in less downtime than the previous two seasons, there were more fish in the system as a result of the abundant Chilko returns. DNA results illustrate Chilko as comprising approximately 70% of the catch between September 1st and September 20th. Additionally 10% was Horsefly/McKinley and 15% was Mitchell and Quesnel Tributaries, 4% were analyzed as Late Stuart.</p> <p>Graphs that have been produced illustrate the gaps in</p>

	data in previous years as well as smaller run sizes.
4. Utilize catch data as a tool for in-season management.	In 2010, we were able to monitor the catch and provide information to other First Nations upriver on what the expected date of arrival a bump in fish would be in their area for their demonstration fishery several days in advance. Were able to inform our own fisheries of possible increases in fish through areas upriver of the Chilcotin River and confirm decreases in migration at points in time.
5. Develop the chinook and coho component by operating fishwheel for a longer period.	Captured more chinook and coho in 2010 than other years and were able to apply tags and release the fish. One of the tags applied on a coho was recovered upstream at the McKinley Creek Adult Coho enumeration fence.
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.	
<p>In 2010 the project was very effective in achieving objectives. The project was definitely able to increase its catch over previous years and produced a comparison that illustrates the effectiveness of the wheel in this area. We also captured more chinook and coho over previous years. Also the fact that we were able to operate through the season and reduce the gaps in data was a significant success given the conditions the area was faced with this past season with forest fires in every direction and constantly reminding us of the danger the crew may be in on any given day. Also being able to report on the data and observations when appropriate was also a measurement of the effectiveness of the project</p>	
3.4 IF applicable, please describe how your project has achieved one or more of the following supported processes (Section 2.2 of RFP; section 7 of detailed proposal template). If results differ from those originally anticipated, please describe.	
Engagement of First Nations. Please specify who, and in what capacity.	This project engaged the NStQ community to be involved in fisheries management via employment and education. Throughout the project the NSTC continued to engage the NStQ, other First Nations and government agencies through several methods such as regular updates of collected data through email and the weekly in-season conference calls that provide in-season information.
Active partnerships with one or more organizations.	The NSTC was actively involved with the UFFCA who provided support to the project as well as the NStQ Communities of Soda Creek, Canoe Creek, Williams Lake and Canim Lake.
Engagement and participation of diverse and under-represented groups.	This project allows for the engagement and participation of the Northern Secwepemc communities through employment and the provision of information that they have collected to a wider audience.

Relationship building, as a foundation for sustainable, enduring activities.	The NSTC is constantly taking the opportunity through this project to improve relationships. We have been since the inception of this project attempted to build a relationship with DFO to ensure the sustainability of the project for the future. It is also used to strengthen relationships with other First Nations by providing our findings as soon as possible.
Capacity building, including mentorship models, leadership training and skills development.	This project is entirely about capacity building. Through this project we are not only developing the capacity of the NStQ to provide valuable information and manage their fisheries, it also is developing the capacity of the technicians and supervisors that have been involved in the project through training and experience.
Recognition and support of champions and their initiatives.	
Opportunities to influence policy and decision making,	With the data collected we see this as an opportunity to better inform decisions that are made in-season and eventually with enough of a baseline that we can influence pre-season planning and the IFMP.
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 NSTC Fisheries Department will continue to utilize the data collected from this year and past years to analyze the dynamics of the runs as they are migrating through the NStQ Traditional Territory. DNA samples collected and analyzed have provided some valuable insight into stock composition in a year when Upper Fraser stocks are weak and the Chilko returns are strong. It is planned that this project will continue to collect the data on health and abundance, which is required for fully informed in-season management decisions. The next steps are to redesign the project, while maintaining the objectives and continue to build this to be a major component of the overall fisheries management process and achieve a state of well informed in-river fisheries management through the collection of biological and physiological data in the middle/upper river. The benefits will be in the elimination of knowledge gaps of the migration of salmon arriving to the mid/upper river areas. With the ever changing environment affecting our fisheries and ultimately the fish it is foreseen that we need to know if the fish are arriving to parts of the river in expected abundances and health seen and estimated in the lower river and marine areas, including run composition.	
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?	
<ol style="list-style-type: none"> 1. Communication is the probably the top lesson learned. Whatever project you are working on always requires great communication with the communities and community members. This will result in a successful project. 2. 3. 	
REQUIRED: Attach all DOCUMENTATION of Final Deliverables, and LIST attachments in Section 7. 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.

The NSTC Fisheries Department communicated the project activities through the communities mostly by direct contact with those communities. The NStQ Community Fisheries Representatives ensured that the community members were aware of the project and its progress as the season progressed. We also provided site visits to several of the NStQ Community members so that they could become more familiar and aware of the project and help promote it in their home communities.

5. APPENDICES

LIST all REQUIRED DOCUMENTATION here, and attach at the end of this report. These include:

1. Documentation of FINAL RESULTS. These may include technical reports, maps, photos, lists of meeting participants, etc. (Section 3).
2. Communications and Outreach materials, if applicable (Section 4)
3. Letters of Confirmation for non-FSWP contributions (Section 5.2)

1. Confirmation Letter from UFFCA for non-FSWP Contributions.
2. PHOTOS next page.
3. Technical Report is being finalized, still in draft form.
- 4.
- 5.

