

Fraser Salmon & Watersheds Program



Fraser Basin Council



2008 Final Report Template

FSWP File Number*	FSWP-D64-1
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*Please use the FSWP File Number provided in previous FSWP 2008 project correspondence

Contact Information

Sponsoring Organization's Legal Name

Bonaparte Watershed Stewardship Society

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)?	Yes	Society Registration number	S-0042680
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Mailing Address

**Bonaparte Watershed Stewardship Society, Attention: Marian Pitt
Box 1, Cache Creek, BC, V0K 1H0**

Street Address (if different from above)

Project Manager¹

Name: Mike Wallis Title: Project Biologist

Affiliation: BWSS Phone: (250) 573-7838

Fax: () phone ahead E-mail: **m308w@telus.net**

¹ All correspondence will be directed to the Project Manager.

Alternate Project Contact

Name: Harold Ridgway Title: Chair

Affiliation: BWSS Chair Phone: (250) 459-2322

Fax: (250) 459-2322 E-mail: ridgways@mail.ocis.net

Partners / Subcontractors

Name: Sean Bennett Affiliation: DFO

Phone: (259) 851-4872 E-mail: sean.bennett@dfo-mpo.gc.ca

Project Information

Project Title					
Streambank Stabilization at Key Locations on the Bonaparte River					
Project Location					
Bonaparte River Watershed					
Amount Requested	\$40,000	Total Project Value	\$95,893	Non-FSWP funds ²	\$55,894

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.

Under the proposed project 8 high priority streambank and riparian area restoration sites were to be completed in the Bonaparte River Watershed. Improving fish habitat for coho and other salmonids at these key sites is the primary goal, but the sites will also be used as part of a plan by the Bonaparte Watershed Stewardship Society to help improve human behaviours by encouraging individual actions that support fish, fish habitat and ecosystem health.

During the past several years the Bonaparte Watershed Stewardship Society has undertaken a series of individual restoration site priorities, partnering with DFO, other funders, and landowners on a site by site basis. Demonstrating the river restoration process locally through these individual site restoration projects has not only helped to restore some key salmon habitat locations but it has also helped in establishing a level of local interest. The Bonaparte Watershed Stewardship Society is currently undertaking a watershed planning process (WFSP) to expand partnerships, education and awareness and to establish a watershed wide sustainability plan. The watershed planning process is going well, and to date has included numerous references to past restoration work as tangible examples of how past land use practices and human behaviour can be changed to provide for fish sustainability and all that fish sustainability represents in terms of watershed sustainability. Restoration activity has been named by the current planning group as an important activity to continue with, while other important watershed sustainability recommendations are being identified.

The restoration projects that the BWSS has implemented through this funding and subsequent years funding are very much on the ground developments that require basic materials such as rocks and trees along with the construction machinery to complete. In order to stretch our dollar we have become very efficient at keeping the cost per meter of restored streambank down through partnerships with landowners, local governments and local industries to maximize the value of FSWP partnership funds. Combined linear streambank restored with these projects equalled 635 meters at an overall cost of \$40,000.00 or \$ 62.99 FSWP dollars per liner meter .

The initial budget for this project had a in-kind contribution of \$45,240. DFO was able to contribute an additional \$10,654 in in-kind labour and cash to bring the total project budget from \$85,240 to \$95,893. This additional capital is what enabled the mapping of the GPS sites, the 1 additional streambank site and the off-channel water station to be constructed. A leverage ratio of 2.4 occurred as a result of the initial \$40,000 invested by the FSWP during this project.

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

The project sought to restore habitat utilized by wild coho, chinook, pink, steelhead and other wild salmonids utilizing the Bonaparte and the surrounding Conservation Unit. Salmon habitat has been severely degraded in the watershed and the restoration activity undertaken improved habitat at 8 high priority sites that will better support spawning and rearing activity by these salmonid species.

Watershed(s) the project targets: please list

Nine restoration sites on the Bonaparte River and associated products (see below)

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
8 key restoration sites completed	The 8 bank erosion sites proposed were restored on the Bonaparte River at the following properties: Jantz, Allison-1, Allison-2 and Allison-3, Ridgway, Preckle, Dussault and Antoine. One additional bank erosion site at the Crawford Ranch as well as an off-channel water culvert and nose pump at the Hunter Ranch were also completed during the 2008/09 fiscal year. The additional restoration site and off-channel water station were installed with additional funds provided by DFO to augment the FSWP funded initiatives
A report summarizing the site selection rationale, pre-treatment and as built summary for each site	Standard revetment bioengineering techniques were used to complete the projects; including the installation of approximately 74 wood/rock spurs for a total of 635 linear meters of streambank restoration. Planting and fencing was incorporated at all 9 restoration sites. Additional wood was secured between the spurs using cable secured with epoxy to drilled holes in ballast rock. The wood and rock material were placed by an experienced operator under the supervision of a Biologist both of whom are familiar with streambank restoration methods. Streambank sites are chosen by the project biologist and BWSS executive members, based on landowner reception and participation, costs, and access. Prescriptions were designed by the project biologist who is familiar with the river sites being restored, the techniques used and various sources of supporting technical expertise. Site prescriptions, as-built descriptions and photos describing details for each site are available in a supporting document. .
A map showing the location of the sites	The BC Cattlemen's Association (Lee Hesketh) provided funds to GPS and map all of the existing restoration sites within the Bonaparte Watershed that had been completed since the early 90's. This was completed during the fall season. DFO was able to partner with the BWSS to digitally map this information for the planning meetings. A total of 89 sites were recorded and mapped, the additional 9 restoration sites and the off-channel sites have been GPS'd and the information has been passed onto DFO to be integrated into the mapping database.
A description of how the restoration sites link to the Watershed Sustainability Plan;	The BWSS was initiated some 10 years ago as a result of landowner concern from Streambank erosion. For 8 years restoration projects have taken place without a cohesive watershed scale plan in place to encourage funders, participating producers, First Nations and government agencies to continue. The Watershed Sustainability Plan

	<p>enabled the members of the BWSS to look ahead into the future and discuss not only what they had accomplished but in what direction they wanted to see the restoration plan go. BC Cattlemen's and DFO partnered to GPS and map all the past sites which provided a great snap shot of all the projects that have been completed over the years. As a result of this information the Jantz and Allison projects were initiated in a totally different part of the watershed near Clinton. This has created a lot of excitement from the public in higher elevation areas of the Bonaparte Watershed and representatives from those communities have come forward wanting to participate in the process.</p>
<p>A description of the BWSS activities undertaken to promote the value of restoration activity as an education tool including education activities and new partnerships including brochure/media materials and tour activities</p>	<p>Opportunities to educate the public of the restoration efforts were numerous and diverse. Tours with landowners, provincial and federal employees and local Bonaparte Band members were conducted. Media announcements and local participation in undertaking the restoration work took place throughout the fall and winter season. Discussions at watershed planning level meetings were very effective in building community awareness and education. The mapping of the GPS sites and viewing by the public and stakeholders at the planning meetings provided visual aids in the overall restoration effort that has taken place. All of these tools have a hand in changing behaviour to support fish and fish habitat sustainability through individual action. The installation of a new style nose pump at the off-channel site was also a great tour for many local ranchers who wanted to see how effective the system worked during the extreme winter months.</p>

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).

The overall restoration project goals and objectives were exceeded during the 2008/09 fiscal year. DFO provided some additional resources in cash and in-kind labour and mapping products. The addition of 1 extra streambank site and an off-channel watering site to the overall program for 2008/09 were an unexpected bonus. The Hunter Ranch off-channel watering site was a priority for the BWSS because we had purchased the nose pump last fiscal and did not have funds to install the product. Completing this project showed good faith to the Hunter family as they had fenced off their entire property from the river and required the off-channel site for their winter feeding area.

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) Clear and effective communication is critical.
- 2) You can never have enough plantings.
- 3) Winter work is always a challenge, this winter we had to be very efficient and organized to complete everything on time due to extreme temperatures over extended periods of time. The lesson learned is you can't push post sized willow cuttings into frozen ground, no matter how thick the cutting or big the machine.

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
<p>Habitat Water Restoration and Stewardship the proposed project offers an initiative that restores high priority salmon habitat including immediate and long term in stream, riparian, water quality benefits.</p>	<p>The restoration activities that have been completed are part of an overall larger watershed restoration plan. These additional 9 sites plus the addition of another off-channel water station will result in improved rearing and spawning habitat for coho, and other salmonids by contributing incrementally to reduced</p>

sediment loading, improved gravel condition (less embeddedness and compaction, improved interstitial spacing), improved riparian shading, moderated temperature, increased potential for benthic invertebrate production, more complex and functional bank structure, reduced livestock impact such as riparian vegetation damage, bank trample and manure input, and improved cover for juveniles and returning spawners. Overall, the project benefits include:

- critical salmon habitat restoration
- riparian restoration (through planting success)
- positive affect on water quality and quantity
- engaging First Nations
- engaging community
- promoting salmon as a highly valued public good (public awareness/education component)
- cost sharing, responsibility sharing
- increasing community capacity for engagement
- high technical feasibility (strong likelihood of success)
- transferability
- low maintenance and follow up 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