Fraser Salmon & Watersheds Program

PACIFIC SALMON FOUNDATION

Fraser Basin Council

2009/10 FINAL REPORT

FSWP File Number*	07350-35/FSWP 09 D HWRS 17

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

1. Project Information

1.1. Project Title

Salmon River Watershed Restoration and Monitoring Project

1.2. Proponent's Legal Name

Salmon River Watershed Society

1.3. Project Location

Salmon River Watershed

1.4. Contact for this report

Name:Mike Wallis	Phone:250-573-7838	Email:mikewallis@hughes.net

1.5 Funding Amount

Original Approved Grant Amount:	Total FSWP Expenditures:	Final Invoice Amount:	Final Non-FSWP leveraging, including cash and in-kind:
90,000.00	90,000.00	18,000.00	135,466.00

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 direct objective of the project was to complete an additional 22 riparian and streambank restoration sites to improve fish and fish habitat and promote human education, participation and behaviour change within the context of a long term, watershed scale riparian and streambank restoration program. The long term goal is to reverse a 130 year historical trend of stream and streambank degradation and fish habitat loss marked by lost riparian vegetation, severely eroding streambanks, high summer temperatures, declining salmon stocks and other issues on the Salmon River. A series of 13 watershed sustainability goals and objectives developed from a consensus planning process include an objective of restoring riparian health. Completion of these 22 sites extends a community driven effort ongoing now for 17 years toward a landscape level threshold of success. The 22 restoration sites reported here were completed during the 2009-2010 project cycle as planned using approaches that are now very familiar to the SRWR and local landowners with funding and resources from FSWP, CP,

MOT, AAFC, FRISP, landowners and others. Fish habitat improvement was achieved was in terms of streambank structure, planted areas, instream complexity, scour pool, invertebrate micro-habitat availability, decreased sediment inputs, as well as human behaviour change demonstrated in terms of willingness to participate and acceptance of current standards.

Perhaps more important than the completion of the 22 fish habitat improvement sites is that these 22 sites bring the cumulative accomplishment to approximately 60% of the originally intended riparian restoration goal set out in 1995 with over 300 sites now restored and the majority of the worst sites in the lower watershed now improved, This year marks a need to shift emphasis from the lower river where most of the streambank issues existed in 1995 (from Salmon Arm to Schwebs Bridge) to the upper watershed (from Schwebs Bridge to Westwold and upsteam) where most of the remaining seriously eroding sites remain. We are approaching a finish to the period of intensive streambank restoration activity on the lower Salmon River which has been a main driver for SRWR activity since 1991. This is a remarkable accomplishment and monitoring completion of the next 20% of the outstanding restoration goal will offer the opportunity to document a system-wide change in human perception and riparian condition while emphasis on intensive streambank restoration activity shifts upstream.

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

The most outstanding outcome of this years work was not that it successfully completes yet another set of restoration sites that builds upon cooperative partnerships with local producers, but more importantly that this year we have our first two discrete indicators of watershed scale riparian and streambank restoration goal success to report. It is likely that a watershed scale improvement resulting from the past 17 years effort to educate and demonstrate improved riparian and stream management practices, can be documented by 2013. If so this will prove that the planning and restoration process that has been followed (based upon proactive, positive, community driven partnerships and watershed planning) can provide watershed scale results, and that the learnings and outcomes are measurable, tangible and transferable.

3.Final Project Results and Effectiveness

3.1 Copy EXPECTED OUTCOMES from your detailed proposal and insert into this section. Add additional rows as needed. Then please list the FINAL OUTCOMES (the tangible end products resulting from this work) associated with expected outcome.

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

EXPECTED OUTCOMES	FINAL OUTCOMES
1. 22 site prescriptions prepared with Section 9 approvals	22 sites were prescribed, permitted and completed following standard practices that have become very familiar to the SRWR, local landowners, producers and contactors.
2. Partnerships struck with landowners that include in kind contributions as well as improved understanding of the importance of and linkage between healthy riparian	Landowners contributed to each project. Motivation for undertaking the projects in every case included both a land protection and habitat protection value set. None

areas, fish habitat, salmonid and watershed sustainability	of the participants insisted on only protecting their personal interests, all agreed to the protection of habitat and ecosystem values as part of the project. The linkage between riparian, fish, salmonids, water supply and demand and watershed sustainability were underscored with participants.
3. An assessment of site conditions after construction, framed in the context of the watershed wide restoration goal	Each site was assessed prior and following restoration. These sites are immediately stabilized and provide measurably improved fish habitat within a year, but based on our experience with other similar sites can generally be expected to continue to mature into higher value habitats over the following decade.
4. An estimate of how much more work should be undertaken	This is still difficult to ascertain. Based on cost effectiveness and diminishing returns concepts we do not expect the need to restore all severely eroding sites before declaring that a shift from an intensive riparian restoration focus to a more preventative approach is justified. A finish point cannot be accurately predicted; however since 60% of the worst sites have now been addressed, and 100% do not need to be addressed , then it is reasonable to expect that an 80% completion rate will trigger sufficient watershed wide indicators of success to justify winding back the priority and switching from expensive, intensive education and streambank reconstruction as the rule to more preventative methods such as education, fencing and planting, while pursuing other key goals such as improved water management more aggressively. Meantime, it is believed that continued monitoring of key features will provide evidence of success with improvement across several indicators of key riparian health features.
5. Monitoring and polling of behaviour change amongst participants in terms of farm practices and fish sustainability	The interest level in local and onsite meetings is shifting in the lower watershed from riparian restoration, which drove the formation of the SRWR 17 years ago, toward water management. This is not the case however in the upper watershed where less riparian and streambank restoration resource has been spent to date, relative to the lower watershed, and a legacy of severely eroding sites that still remain untreated. Most of the remaining 20% of the worst eroding streambanks are located between Schwebs bridge, Westwold and above. The general acceptance of BMPs and willingness to participate in the new water management and drought response planning efforts presently being initiated by the SRWR suggest a new level of awareness and maturing perspectives in general through out the watershed that may allow us to move past the riparian restoration as a key activity to emphasize improved water management in the near future.
3.2 Please evaluate the EFFECTIVENESS of your project in achieving Project Objectives. Please identify the indicators you have used to measure the effectiveness of your project. Please include any notable successes or challenges.	

The 2009-2010 restoration activity was very effective. The methods and techniques used are well understood and have been proven to provide improved fish and riparian habitat, while serving as a common point of interest to unite landowner and public support for fish, riparian habitat, water and other key watershed sustainability objectives (see 13 goals and objectives supporting a sustainable watershed drafted in 1995). Before and after photos demonstrate site by site effectiveness over a long list of restoration projects. Many tours of various sites have been undertaken which clearly demonstrate improvement in landowner perception and site condition. However the FSWP sponsored 2008-2009 air photos taken are beginning to provide proof of watershed scale (landscape level) improvement to riparian conditions. The willingness of landowners to participate using BMPs of today, seen in the large scale acceptance of modern bioengineering methods to support health streambank, instream and riparian habitats on the Salmon River also signals the abandoning of past practices which were unsustainable (such as using derelict vehicles and old farm equipment as streambank restoration structures or the past practice of straightening out rivers using heavy equipment and removing log jams to “get the water away faster” show changing attitude and value perceptions.

Key challenges are very simple. There has been much effort by many in promoting, resourcing, undertaking and demonstrating the benefit of riparian streambank habitat restoration on the Salmon River. The process for organizing new landowner partnerships and undertaking additional restoration work has become routine at the local SRWR/community level. There is no doubt that critical mass of the highly eroding sites could be completed within 3-5 years if sufficient funding were available. Understanding how to undertaker the restoration techniques and establish landowner partnerships are no longer a blockage to success on the Salmon River. The only significant blockage of completing the remaining sites, after all this learning and doing, is availability of timely funding. Ironically, even though we have good momentum toward our finished goal, proven methods, willing participants now convinced that our approach is a good one, and we are so close to achieving a finish point, funding remains the limiting factor.

Other challenges are found in addressing the equally important aspect of water management of improved water management and drought management responses that must go hand in hand with a successful riparian, streambank and instream fish habitat improvement effort. Both are currently being addressed by the SRWR within the watershed plan.

3.3 REQUIRED: attach all DOCUMENTATION of Final Outcomes, and LIST attachments here. These may include technical reports, maps, photos, evidence of communications, lists of

meeting participants, etc.

2008-09 Site photo set
Air photo example with1995 conditions digitized showing maturing riparian area improvements
Recent slide show : Westwold meeting

3.4 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?

- **NB: Text Box below will not accept text input due to formatting? Therefore info provided here in point form for Section 3.4**
- **Completion of seriously eroding streambank sites**
- **Continued monitoring of indicators to signal transition through threshold from intensive steambank, riparian, instream habitat restoration to passive preventative methods**
- **transition to other key sustainability issues such as improved water management**

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. secure long term base funding to improve probability of achieving long term goals

2. lead by example, let local successes promote new participation, allow time for people to observe, reconsider their perceptions and change their minds

3. put more effort into simple, long term monitoring result that can prove future success to funders

4. Project Expenditures

In Part A, please list all line-items from your original proposal, and add any additional line-items for costs that were not originally budgeted. Please include more specific descriptions of services or items where possible, (e.g. the name of the company or individual contracted), and actual rates, unit costs, and total expenditures. In Part B, report the original amount budgeted per line item from the detailed proposal, and the actual FSWP and non-FSWP amounts spent. Please NOTE that FSWP does not expect actual expenditures to necessarily align with the original budget.

Wood	59	240.86	14,210.80	5,590.00	7,996.80	6,214.00	
Plantings	1020	3.65	3,723.00	1,861.50		3,723.00	
Hardware(cable,epoxy,stap)	780	9.02	7,035.00	3,510.00	2,923.00		4,112.00
Equip rental	30	108	3,240.00	2,760.00	0.00		3,240.00
Local equipment	30	81.33	2,440.00				2,440.00
Fencing	1020	5.86	5,973.00			5,973.00	
Mileage	9360	0.55	5,190.98	2,199.60	2,211.18	2,979.80	
Monitoring	1	23950	23,950.00	0.00	1,050.00		22,900.00
misc field supplies	60	15	900.00	900.00	900.00		
Materials, Supplies & Equipment Sub-Total			**152,221.40**	**59,125.10**	**59,065.10**	**60,464.30**	**32,692.00**

Administration & Overhead

Item	# of Units	Unit Cost	Total Project Expenditures	Original FSWP Budget (from detailed proposal)	Total FSWP Expenditures	Total Non FSWP Contribution	
						Cash	In-Kind
Bookeepeeping/ Admin staff	1	1700	1700	1,250.00	1,250.00		450.00
Volunteer Insurance	1	500	500	500.00	500.00		
Phone	1	900	900	850.00	850.00		50.00
Office	1	1250	1250	1,250.00	1,250.00		
mater, supplies	1	2800	2800	2,800.00	2,800.00		
print, copy	3125	0.12	375.00	375.00	375.00		
Administration & Overhead Sub-Total			**7,525.00**	**7,025.00**	**7,025.00**	**0.00**	**500.00**

FUNDING SUMMARY - DO NOT FILL - FSWP STAFF USE ONLY	
Total Originally Budgeted FSWP Contributi	**90,000.10**
Total Project Expenditures	**225,466.94**
Total FSWP Expenditures	**90,000.10**
Total Non FSWP Contributions	**135,466.84**

4.1 If you have had any significant differences in spending in comparison to your original budget, please provide an explanation. Significant differences could include costs that exceed 20% of a line-item or budget category (labour, materials, administration), and new items or services that were not originally budgeted, exceeding 10% of total FSWP contribution.

NB Table below will not accept text therefore info for 4.2 inserted here.
Canadian Pacific funded approx 52 K cash toward the projects, FRISP funded approx 2400 toward prescription prep, Project Bio donated approx 3200 in kind, landowners donated approx 8500 in kind, Env Cda and MOE donated approx 23 K in water monitoring services, SRWR contributed 3K

4.2 Please describe all non-FSWP project contributions, cash and in-kind:

Non-FSWP Contribution Sources	Letter of Confirmation Attached (Y/N)	Cash ($)	In-Kind($)	Total($)
See above				

5. Project Promotion

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

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

SRWR bimonthly meetings
Onsite discussions with landowners
Local community meetings (Silver Ck Community Assoc, Westwold water users , Salmon Arm Environmental Management Committee , Johnson Rd development Planning , Regional Parks, EMC, Monte Lake water Users)
Slide shows (Silver Ck, Westwold, Falkland)
Extension programs incl outside watershed assistance (Shuswap R, Tappen Ck, Bonaparte R, Vanderhoof, Quilchena Ck, Coldwater R, Coquitlam)
Water Act modernization workshop participation (Kamloops)
Drought Response workshop participation (Kamloops)

6. Further Comments

Please provide any further comments including recommendations for future efforts and suggestions for helping partners to meet the goals of the Fraser Salmon and Watersheds Program.

Reduce reporting requirements for proponents on balance with ensuring that FSWP staff members holding project files are resourced to come to the field for at least one onsite visit per project per year. Staff can collect photos and information, ask questions while on the site and see first hand what is being accomplished reducing the need for time consuming reporting by proponents and increasing the field value derived from FSWP funds.

7. DECLARATION

Please complete the following declaration:

I, Jamie Felhauer, Chair, SRWR , hereby declare that:

1) The information provided in this report, including all attachments is accurate to the best of my knowledge and that I am authorized to sign on behalf of the stated proponent organization;

2) the information contained in the above financial statement submitted by us to PSF, is accurate in all material respects and is net of any GST Input Tax Credit received or receivable by us and that the funds were used exclusively for the project as originally proposed or as formally amended by PSF;

3) Any funds previously paid to the Proponent by the Foundation have been used to fund project expenditures approved by the Foundation and in full compliance with the Regulation on the Use of PSF Grant Funds and Reporting Procedures set out in the Application for Funding submitted by the Proponent to the Foundation;

4) The balance of any funds previously paid to the Proponent which were not used as set out in item 3 have been returned to the Foundation;

5) Any additional funds paid to the Proponent by the Foundation will be used in this manner.

Signature: _____ March 31, 2010

(Authorized Signatory)

Name: Jamie Felhauer
(Print Name)

8. Appendices

REQUIRED: attach all DOCUMENTATION of Final Outcomes, listed above in section 3.3. These may include technical reports, maps, photos, evidence of communications, lists of meeting participants, etc.