



Healthy salmon populations in functioning watersheds co-existing with thriving communities in the Fraser Basin

"The Fraser salmon runs have served mankind for
ten thousand years. If we give them a chance they
can last as long as mankind, perhaps longer."

— RODERICK HAIG-BROWN, IN NATURE CANADA, APRIL/JUNE 1972

Fraser Salmon & Watersheds Program



Fraser Basin Council

Good for salmon = Good for us

Here in the Fraser Basin of British Columbia, salmon are a cornerstone of our environmental, cultural and economic strength. Salmon are an indicator species that reveal the health of the entire ecosystem. Salmon are vital to First Nations cultures. Salmon images are favoured by our artists and tourism organizations because they have come to define how we see ourselves and how the world sees us. And the salmon resource is central to multiple economic sectors, including food, tourism, commercial and recreational fishing. Interconnected to the well being of British Columbian society, salmon are our inheritance and a valuable legacy for future generations.

Yet many salmon runs are at risk in the Fraser Basin, signaling a range of problems in the watersheds. Efforts to preserve and restore our salmon legacy bring unique value to British Columbia. The core of these efforts is the need for human behaviour change through the coordinated work of First Nations, government agencies, individuals, community groups and corporations. Whatever we can do for the salmon will be good for us all.

FSWP areas

FSWP projects span the four program areas described here. In each area, FSWP seeks to address both local issues throughout the Fraser Basin and broader, basin wide issues. A sample of 2008 projects illustrating each area is featured inside this brochure.

Habitat

Critical salmon habitat is being degraded by many threats such as development pressure and the impacts of climate change. Dedicated stewards throughout the basin work against this trend to maintain and improve habitat conditions that benefit salmon. It is a challenge to determine where habitat work will be most effective, how to do the work most efficiently, and what practices will result in the most resilience for the resource.

The Habitat & Water Restoration and Stewardship program area seeks to:

- improve conditions for salmon through habitat work that is of the highest value according to the best available information,
- build community involvement in stewarding the environment, and
- provide information and tools to prioritize, strategize, coordinate and otherwise improve the practice of habitat work.



Governance

Sound decisions about water and waterways should consider the entire watershed. Yet no single governmental authority has sole jurisdiction over a watershed. Watershed boundaries are defined by natural systems and do not always align with human government boundaries. A critical human behaviour change is to establish mechanisms that allow all orders of government and all interests to collaborate and make decisions focused on overall watershed health.

The Integrated Planning and Governance program area has activity at two scales, intended to:

- support inclusive planning and governance structures at the sub-basin scale that can create and pilot solutions to key issues such as management of local water use, and
- convene leaders from all orders of government and industry sectors at the province-wide scale to work towards a common vision of sustainable watershed governance.



FSWP role

To inspire the variety of human behaviour change that will benefit our salmon and watersheds, the Fraser Salmon & Watersheds Program (FSWP) was created and is managed by Pacific Salmon Foundation (PSF) and Fraser Basin Council (FBC), working with the provincial Living Rivers Trust Fund and the federal Fraser Basin Initiative of Fisheries and Oceans Canada.

FSWP has funded and helped to coordinate over 230 projects with \$10.2 million investment to date. By focusing on collaboration in order to address difficult issues, FSWP projects have:

- improved information and methods available for fisheries management,
- increased engagement of First Nations in watershed and fisheries stewardship,
- convened a range of processes enabling better management of water quality and quantity, and
- restored critical salmon habitat in key areas of the Fraser Basin.

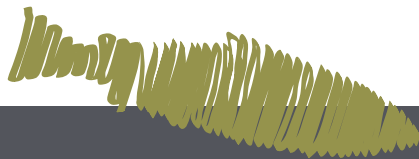
Examples of 2008 projects that have contributed to these outcomes are inside this brochure.

FSWP approach

FSWP selects projects annually in each of its four program areas using the collaborative process outlined on the back of this brochure. The objectives of each area evolve in response to input from the diverse perspectives that contribute to the process.

FSWP seeks projects that both meet program area objectives and support values of sustainability. Projects should offer enduring, meaningful community impacts and increase proponents' resiliency and effectiveness as agents of change. Specifically, project delivery can also build:

- Relationships and communication across boundaries
- Stewardship ethics to motivate activity
- Organizational capacity to deliver quality and innovative projects
- Leadership, including mentors and champions
- Recognition of First Nation title and rights
- Participation of underrepresented groups
- Local self-reliance
- Inclusive and collaborative decision making
- Long term, visionary planning



For information about all projects, visit the Project section of www.thinksalmon.com

Fisheries

The overall aims of fisheries management are to conserve fish stocks and their genetic diversity, fulfill First Nations' rights to food, social and ceremonial fishing, and distribute fishing opportunities to other users. Management decisions rely on methods that are hindered by missing data and uncertainty, threats to salmon productivity from degraded habitat and climate change impacts that are not yet understood. Further, a commonly accepted framework for management decisions is needed that considers social, cultural, economic and environmental values.

The Sustainable Integrated Fisheries Management program area seeks to:

- enable strategies and science that help fisheries to preserve the abundance and genetic diversity of salmon, and
- provide tools and information to build a common understanding of the issues, threats and solutions related to salmon fisheries.



Engagement

People in the Fraser Basin vary in their relationship to salmon and environmental issues. Some are active stewards with experience and knowledge to share. Others recognize the need to act, but often have no "doable" first step or grasp of how they can make a difference. Other people behave destructively either because they do not recognize the consequences or they have different values related to environmental concerns. Leaders in each region of the Fraser Basin need to strategize about which audiences to address and what behaviour change to promote.

The Education and Engagement program area seeks to:

- identify strategic audiences and actions in a region, and promote those specific behaviour changes, and
- pair behaviour change promotion with watershed education that will escalate ability and willingness to take action.



FSWP Annual Cycle

Operating in an annual cycle that begins in April, FSWP plans for next year's projects while the current year's projects are implemented. Future projects are developed through the collaborative process outlined below that draws on many perspectives in order to set objectives and then select a strategic mix of projects. Most current projects are implemented by proponents, enabled by funding and other assistance from FSWP. Some strategic projects are specially contracted for and then managed by FSWP staff.

	Develop Future Projects	Implement Current Projects
April	Set objectives <ul style="list-style-type: none">• Review what is working, what is needed• Formulate Fraser Assembly agenda	• Initiate projects
June	• Host Fraser Assembly to collect input for RFP and for FSWP generally	• Host Fraser Assembly to support information exchange
September	• Distribute Request For Proposal Select projects <ul style="list-style-type: none">• Accept concept proposals• Offer concept feedback & invite detailed proposals	• Accept interim reports
December	<ul style="list-style-type: none">• Accept detailed proposals• Conduct multi-tiered review• Select proponent led projects• Analyse gaps, opportunities to assist• Scope FSWP led projects	
March	• Compile work plan	• Accept final reports

How can we help you?

Potential collaborators

FSWP is eager to work with groups on issues related to watersheds and salmon in the Fraser Basin. We can offer funding and opportunities to network and collaborate.

Government officials and media

Our program interacts with an extensive network of stakeholder groups and maintains a broad, strategic perspective of issues in the Fraser Basin. We would be happy to help with questions and contacts that address your concerns.

Concerned citizens

Want to take action in your community? We can help you find ideas & organizations that will make a difference.

Contact the FSWP staff:

Pacific Salmon Foundation

Megan Moser, *Communications Manager*
Tiffany Pither, *Administrator*
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Fraser Basin Council

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2009 Technical Review Committees

Habitat

Matt Foy, Fisheries and Oceans Canada
Patricia House, Fisheries and Oceans Canada
Rob Knight, Ministry of Environment
Art Tautz, Ministry of Environment

Governance

Oliver Brandes, Polis Project, University of Victoria
Dan George, Four Directions Management Services Ltd.
Barry Huber, Fisheries and Oceans Canada
Wilf Luedke, Fisheries and Oceans Canada
Ted White, Ministry of Environment

Fisheries

Michael Chamberlain, Fisheries and Oceans Canada
Sean Cox, Simon Fraser University
Jamie Scroggie, Fisheries and Oceans Canada
Michael Staley, IAS Ltd.
Michelle Walsh, Secwepemc Fisheries Commission

Engagement

Joanne Day, Fisheries and Oceans Canada
Sue Hemphill, Williams Lake Field Naturalists
Brenda Ireland, Aboriginal Tourism of BC
Richard Kool, Royal Roads University

2009 PSF Board Project Review Committee

Ian Angus, Chair
Bob Cole
Don Swoboda
Bryan Williams
Cameron West, Secretary

Funding partners

Living River Trust Fund
Fisheries and Oceans Canada

2009 Donors

Metro Vancouver Port Authority
Rocky Mountaineer Vacations



The Fraser Salmon & Watersheds Program is jointly managed by Pacific Salmon Foundation and Fraser Basin Council to strategically deliver funds from the provincial Living Rivers Trust Fund and a federal initiative of Fisheries and Oceans Canada. The joint managers of FSWP are impartial and ideally placed to convene a variety of perspectives, including both on-the-ground groups and larger institutions, to address complex challenges.



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For program information, see www.fswp.ca

To Think, Learn and Act for salmon, see www.thinksalmon.com



Develop a management structure to implement and monitor Xeni Gwet'in's multi-stakeholder ecosystem-based plan for the caretaker area to ensure fish sustaining practices within the Chilko Watershed.

Results: assessed information needs; set goals and process for plan; engaged government agencies



Fraser Salmon & Watersheds Program



Fraser Basin Council



April 2008 – March 2009 Projects

FSWP funds a strategic mix of projects in its four program areas, as illustrated by the projects featured below. Where possible, 2008 project locations are marked by a map pin.

For information about all projects, visit the Project section of www.thinksalmon.com

FSWP delivers funds from:



Fisheries and Oceans
Canada



LEGEND

- Habitat Project
- Governance Project
- Fisheries Project
- Engagement Project
- Major Communities
- Major Watersheds
- Highways
- Indian Reserves
- Fraser River
- Rivers / lakes

10 Horsefly River Roundtable

Watershed Management Plan - Stage 2 and 3

Prescribe how to restore and manage habitat areas as part of planning for watershed based fish sustainability plan.

Results: watershed status report; initiate projects to engage public and address priorities



4 Cariboo Chilcotin Conservation Society

Water Wise

Provide programs on water conservation and watershed health to a variety of audiences. Promote stewardship in partnership with local businesses.

Results: nearly 10% reduction in water use for targeted areas; over 55 school classes reached



14 Columbia Shuswap Regional District

Shuswap Lake Watershed & Foreshore Mapping

Inventory foreshore of Shuswap Lake through aerial footage and ground inspection; incorporate into Community Mapping Network (CMN) online atlas to assist environmentally sound planning.

Results: collected baseline habitat data; atlas accessed through CMN



13 Secwepemc Fisheries Commission & Partners

Groundwater Habitat Interactions for Interior Fraser Coho

A partnership among First Nations groups investigates interaction between habitat for interior Fraser coho and groundwater upwellings, which may provide a colder refuge during warm times.

Results: identified location and timing patterns; improved study design





12 Musqueam Indian Band

Prioritization of and Rehabilitation Designs for Fish Impediments

Prioritize and rehabilitate man-made barriers to salmon migration in Fraser tributaries west of Brunette River; includes public workshop.

Results: assessed 13 stream sites; designed rehabilitation for 5 sites

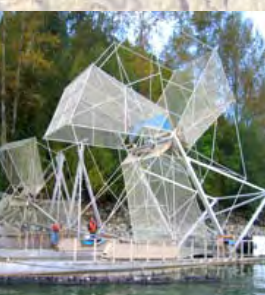


8 City of Coquitlam & Kwikwetlem First Nation

Coquitlam River Watershed Strategy – Community Engagement and Visioning

Engage stakeholders to establish a vision and values for the watershed, and to develop a mission and principles for collaborative decision-making.

Results: engaged over 175 stakeholders; agreed on a vision, values, mission and governance framework



5 LGL Limited and partners

Lower Fraser Fishwheels and Biotelemetry

For adult salmonids and sturgeon caught by fishwheels, take DNA samples, mark with radio-tags and release. Assess how this new data can enhance existing in-season estimates of escapement and in-river survival for Fraser salmon.

Results: improved understanding of how to use data from several sources; plan for Count on Salmon project

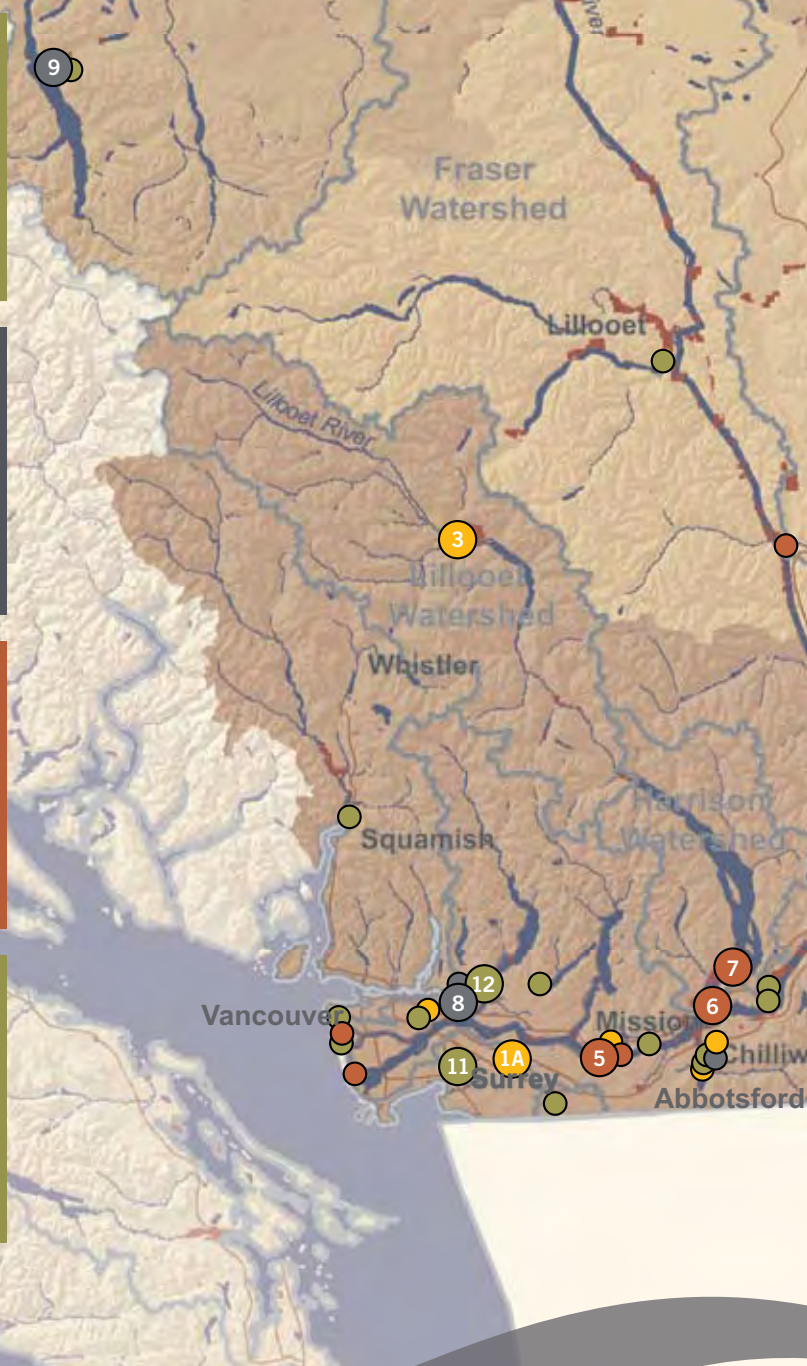


11 City of Surrey

Salmon Habitat Restoration Program (SHaRP)

Apply the Surrey "Nature Matters" approach by engaging students in restoration work, businesses in reduced storm drain pollution, agriculture in better stewardship practices, and the public in habitat and awareness initiatives.

Results: improved numerous sites along watercourses; hosted community events; provided experience to youth



2008 Project Summary

	Number of Regional Projects	Number of Basin Wide Projects	Total
Habitat	30	7	37
Governance	9	4	13
Fisheries	12	3	15
Engagement	9	11	20
TOTAL	60	25	85

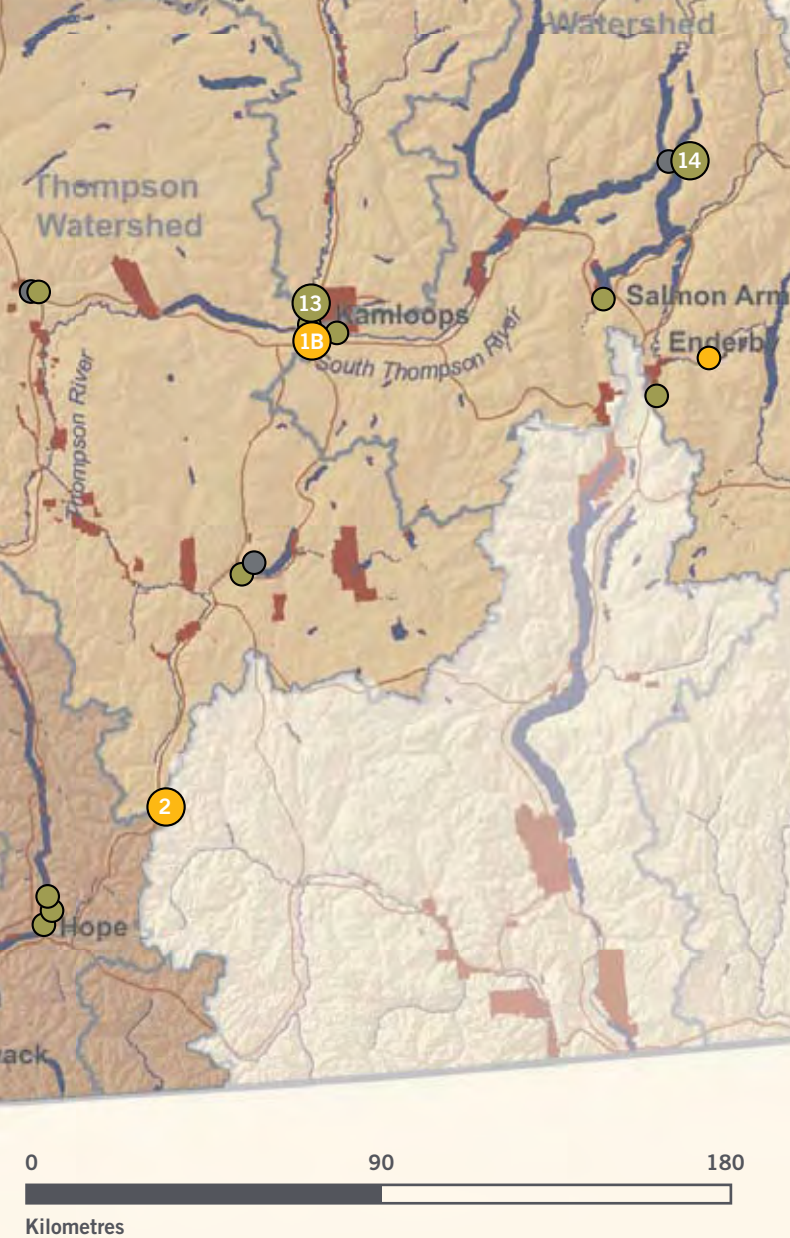
2008 Financial Summary

Expenditures



Habitat	\$1,434,000
Governance	\$730,000
Fisheries	\$806,000
Engagement	\$561,000
Supporting Activity	\$313,000
Program Management	\$458,000

Total \$4.3 Million



2 Nicola Tribal Association

Coldwater River Habitat Education and Awareness

Educate recreational vehicle users in the upper Coldwater River about the potential for their activities to damage critical fish habitat, and promote more environmentally sensitive practices.

Results: 7 signs posted; 131 interviews conducted



7 Chehalis Indian Band

Development of an Inland Rivers Fisheries Traceability System

Test an inland fisheries monitoring system that uses DNA testing to identify fish stocks and establishes chain of custody with traceability technology.

Results: documented the Chain of Custody for 2008 harvest; improved system for 2009



6 FSWP and partners

Fraser Sockeye Hook and Release Mortality Study

First Nations and recreational fishers collaborate in duplicating recreational sockeye angling techniques observed on the Fraser to determine the short term mortality of fish caught and released.

Results: completed field work for first of multiyear study



FSWP, Living Rivers and partners

Collaborative Watershed Governance Initiative (CWGI)

Representatives from all orders of government, including First Nations, industry and NGOs participate in a workshop and reach consensus to pursue more collaborative processes in watershed management.

Results: written prospectus; focus group discussions; 23 features proposed for effective collaboration



Map prepared by Kim MacLean, Fraser Basin Council

Revenues

Total \$4.3 Million



Provincial Living Rivers Trust Fund
Federal initiative of Fisheries and Oceans Canada

2009 Summary

FSWP has approved 64 projects for the April 2009 – March 2010 funding period to receive \$3.2 million funding, leveraged by \$4.3 million from other sources.

