

### LIVING RIVERS ADVISORY GROUP

John Woodward Woodcorn Investments Ltd. Chair Shawn Atleo BC Assembly of First Nations Mark Gifford, Vancouver Foundation Rick Hansen, Pacific Salmon Endowment Fund Don Peterson, Freshwater Fisheries of BC Paul Sprout, Fisheries and Oceans Canada Nancy Wilkin. Ministry of Environment

### FRASER BASIN INITIATIVE STEERING COMMITTEE

Allison Webb, Fisheries and Oceans Canada, Chair Thomas Alexis, Tl'azt'en First Nation Paul Kariya, Pacific Salmon Foundation David Marshall, Fraser Basin Council Al Martin, Ministry of Environment Ned Pottinger, Pacific Salmon Foundation George Saddleman, Fraser Basin Council

### PSF BOARD PROJECT REVIEW COMMITTEE

Zo Ann Morten, Chair lan Angus Bob Cole Ned Pottinger Don Swoboda

### TECHNICAL REVIEW COMMITTEES

HABITAT

Patricia Carlson, Fisheries and Oceans Canada Marc Gaboury, LGL Ltd. Matt Foy, Fisheries and Oceans Canada Brad Mason, Fisheries and Oceans Canada Dianne Ramage, Pacific Salmon Foundation Adrian Wall, Fisheries and Oceans Canada

#### GOVERNANCE

Zita Botelho, Ministry of Environment Oliver Brandes Polis Project Joan Chess, Fraser Basin Council Ed Woo, Fisheries and Oceans Canada

### FISHERIES

Al Cass, Fisheries and Oceans Canada Sean Cox, Simon Fraser University Deana Machin, fisheries consultant Peter Nicklin, Upper Fraser Fisheries Conservation Alliance Mike Staley, fisheries consultant Ken Wilson, fisheries consultant

### ENGAGEMENT

Kerri Buschel, Vancouver Fraser Port Authority Joanne Day, Fisheries and Oceans Canada Sue Hemphill, Williams Lake Education Centre Mark Hume, Globe and Mail

### FSWP STAFF

Katrina Assonitis, Coordinator Jessica Bratty, Advisor Sheila Creighton, Coordinator Alison Macnaughton, Manager Saul Milne, Coordinator Megan Moser, Communications Manage Mark Saunders, Director Andrew Stegemann, Acting Manage Tascha Stubbs, Coordinator

### FOUNDING FUNDERS

Fisheries and Oceans Canada Living Rivers Trust Fund

### OTHER FUNDERS

Pacific Salmon Endowment Fund Society Vancouver Fraser Port Authority Rocky Mountaineer Vacations

Using a collaborative process that draws on the many perspectives of the people and organizations listed below, FSWP annually funds a strategic mix of projects initiated by proponents and by staff.

### FRASER ASSEMBLY ADVISORY TEAMS

Thanks to the 65 participants in the 2007 Fraser Assembly. Though space prevents us from listing them all, many of them participated in our ongoing Advisory Teams listed below. HΔRITΔT

Harold Archie, Skowkale First Nation Clay Campbell, Farmland Riparian Interface Stewardship Program Maurice Coulter Boisvert, Fisheries and Oceans Canada Coral deShield, Environment Canada Stephen Dick, Lower Nicola Indian Band Lee Hesketh BC Cattlemen's Association ALLIIL BC Conservation Foundation Zo Ann Morten, Pacific Streamkeeners Federatio James Paul, Esketemec First Nation Dianne Ramage Pacific Salmon Foundatio Neil Todd, Nicola Tribal Association Adrian Wall, Fisheries and Oceans Canada Mike Wallis, Salmon River Watershed Roundtable

#### GOVERNANCE

Huguette Allen, Lumby Salmon Trails Tom Cadieux, Fisheries and Oceans Canada Jamie Felhauer, Salmon River Watershed Roundtable Jeff Jung, Fisheries and Oceans Canada Bob Otway, BC Federation of Drift Fishers June Quipp, Cheam First Nation Rick Quipp, Cheam First Nation Teresa Rvan, Native Brotherhood of BC/FN Marine Society Elizabeth Salomon-de-Friedberg, Nicola Watershed Round Tabl Marcel Shepert, Fraser River Aboriginal Fisheries Secretariat Ernie Victor, Fraser Basin Council

#### FISHERIES

Bob Bocking, LGL Limited Joachim Carolasfield, World Fisheries Trust Sara Howard, Nature Conservancy of Canada Les Jantz, Fisheries and Oceans Canada Doug Kelly, Sto:lo Tribal Council Frank Kwak, Upper Fraser Valley Sport Fish Advisory Committee Brad Mason, Fisheries and Oceans Canada Peter Nicklin, Upper Fraser Fisheries Conservation Alliance Dugald Smith, Agriculture and Lands, ILMB Mike Staley, fisheries consultant Gord Sterritt, Northern Shuswap Tribal Council Michelle Walsh, Secwepemc Fisheries Commissio Ken Wilson, Watershed Watch

#### ENGAGEMENT

Bev Bowler, Fisheries and Oceans Canada Chad Brealey, Pacific Salmon Foundation Neil Brookes, Kinafisher Interpretive Centre Society Clive Callaway, The Living By Water Project Joan Carne, Stream of Dreams Mural Society Bob Guerin Musqueam First Nation Richard Holmes, University of Northern BC Quesnel River Research Centre Mark Johnson, Fisheries and Oceans Canada Nichole Marples, Langley Environmental Partners Society Janis Olsen, Rivershed Society of BC Deborah Phelan, Fisheries and Oceans Canada Tracy Sampson, Nicola Tribal Association Veronica Woodruff, BC Conservation Foundation



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# Fraser Salmon & Watersheds Program



Fraser Basin Council

ANNUAL REPORT. APRIL 2007 – MARCH 2



### INSPIRING CHANGES IN HUMAN BEHAVIOUR FOR THE BENEFIT OF SALMONIDS AND THE WATERSHEDS ON WHICH WE ALL DEPEND

"The challenges facing Fraser River salmon are substantial and "Human behaviour change is essential. Becoming require our ongoing attention. Fisheries and Oceans Canada is responsible stewards of the salmon resource is proud to be contributing to the Fraser Salmon and Watersheds economical compared to the cost of losing salmon. Program which is acting to conserve and rebuild these Working together to restore healthy, salmon-sustaining

are the key to ensuring the long-term sustainability of salmon establishing BC as a world leader in sustainable living." stocks, and the health of the Fraser Basin ecosystem."

THE HONOURABLE LOYOLA HEARN. MINISTER OF FISHERIES AND OCEANS CANADA

species. We believe that collaborative efforts like this program rivers is the key to making our communities thrive and

JOHN WOODWARD, CHAIR, LIVING RIVERS ADVISORY GROUP



In the shadow of Mount Robson, the highest peak in the Canadian Rockies, a glacier trickles into a stream that begins the 1,400 kilometer flow of the greatest salmon river in the world: the Fraser River. Fraser River salmon are both a cultural icon and an indicator of a healthy connection between communities and their environment. While the Fraser River basin is home to 7 species of Pacific salmon that migrate their way to sea in numbers approaching 800 million annually, it is also home to almost 3 million people. Can we live together harmoniously?

Many salmon runs are already extinct or at risk in the Fraser Basin. Climate change and expanding development threaten to accelerate this decline. Over 130 species depend directly on salmon abundance for their survival. The mission of the Fraser Salmon & Watersheds Program (FSWP) is to inspire changes in human behaviour for the benefit of salmonids and the watersheds on which we all depend. By acting now to preserve the abundance and diversity of Pacific salmon, we can maintain the interdependent ecosystems that are vital to our well being.

Jointly managed by Pacific Salmon Foundation (PSF) and Fraser Basin Council (FBC), FSWP pursues its mission through ongoing collaboration to identify, scope, implement, and fund priority activities in the four program areas described inside this report. FSWP seeks to engage First Nations and their world views in all four areas. Setting priorities for activity draws on many perspectives using:

- strategic advice from the Living Rivers Advisory Group and the Fraser Basin Initiative Steering Committee, and
- consultation with the Fraser Assembly, an annual meeting and ongoing network open to all stakeholder and First Nations groups throughout the Fraser Basin.

Projects that respond to the priorities are proposed annually by both proponents and FSWP staff, and are then developed through a process of iterative advice and review.

FSWP functions by enabling groups to recognize the human behaviours that threaten their local watersheds and to work with individuals, organizations and institutions to change these behaviours. FSWP enables its proponents by providing strategic support, coordination and resources in order to increase their resiliency and effectiveness as agents of change. We are creating a legacy of coordinated effort among First Nations, government agencies, community groups and corporations for the direct benefit of salmon, watersheds, and British Columbians.

FSWP originated in 2006 through a business plan jointly developed by PSF and FBC for the Living Rivers Trust Fund. The Fund committed approximately \$10 million over four years. Through its Fraser Basin Initiative, Fisheries and Oceans Canada has also provided founding funds of \$5 million cash and \$5 million in-kind support over five years.

FSWP's business plan defines three long range goals

- 1. Foster effective communications and governance approaches
- 2. Protect and restore habitat and water
- 3. Support responsive and effective fisheries management

Under development is a set of performance indicators to measure how successfully FSWP activity contributes to these goals.

### FINANCIAL SUMMARY

2007 EXPENDITURES

Habitat	\$1,039,000
Governance	\$617,000
Fisheries	\$793,00
Engagement	\$470,000
Supporting activity	\$255,000
Program management	\$341,000

Total: \$3.5 million

2007 REVENUES Total: \$3.5 million



### 2008 SUMMARY

FSWP has approved 79 projects for the April 2008 – March 2009 funding period to receive \$3.3 million funding, leveraged by \$6.5 million from other sources.

### HABITAT

Efforts to restore habitat and water must move away from fragmented activity to coordinated activity based on coordinated information. The behaviour prescribed by a stewardship ethic must be promoted and directed towards the places where it can have the greatest impact.

To this end, the Habitat and Water Restoration and Stewardship program area undertakes projects that:

- prioritize watershed status and threats by sub-basin;
- restore habitat in high priority watersheds, including access improvements;
- develop and promote Best Management Practices and other tools; and
- enable coordination of restoration efforts.

Selected projects illustrate each program area on these pages. Map pins show the location of regional projects. For details about all projects, visit the Project section of ThinkSalmon.com.



BC CATTLEMEN'S ASSOCIATION Farmland - Riparian Interface Stewardship Program whe program provides a range of services to farmers with riparian and to ensure that salmon habitat is protected and can thrive in he midst of agricultural activities.

### GOVERNANCE

Watershed boundaries are defined by natural systems and do not necessarily align neatly with political boundaries. Yet, sustainability requires that decision-making focus on overall watershed health. Governance structures organized by watershed boundaries allow critical collaboration that would not happen otherwise. These structures can be a catalyst for recognizing the need for behaviour change and promoting the change to organizations, institutions and individuals as needed.

The Integrated Planning and Governance program area fosters watershed-focused, collaborative governance approaches at:

- the basin-wide scale, to bring together stakeholders from different sectors in forums that address resource use and conservation; and
- the sub-basin scale, to pilot solutions to key regional policy issues such as management of local water use.

### CITY OF COQUITLAM AND KWIKWETLEM FIRST NATION Coquitlam River Watershed Research and Stakeholder

Partners collaborate on watershed planning, beginning with work on an accountability matrix, a state of the river summary, and communication tools.



# SALMON RIVER WATERSHEE

Riparian Zone and Streambank Restoration This project used watershed scale planning and implementation to restore over 125 sites with a high level of collaboration and cost sharing among local landowners and several funders.



UBC DEPARTMENT OF FORESTRY Development of a Hydrologic Process Model for Mountain Pine Beetle Affected Areas in BC A component of Nature Conservancy of Canada's Watershed Status and Threats Decision Support Tool, this project analyzes changes in water flow due to mountain pine beetle damage and their impact on salmon habitat. The applied model is based on the dominant



JPPER FRASER FISHERIES CONSERVATION ALLIANCE Mountain Pine Beetle Impacts on Fish Habitat JFFCA documents the impacts of historic infestations of Mountain Pine Beetle on salmon habitat n order to inform efforts to hitigate impacts of current and future infestations.



ITO: DION MANASTYRSKI, MINISTRY OF FORESTS

### FRASER RIVER SALMON

TABLE SOCIETYBuilding a RiverCommunityThe commercial sectorworks with the Sto:lo toassess needs for restoratioof the Cultus Lake sockeyeand to move towards astewardship plan.



## FIRST NATIONS

As the original stewards of the Fraser Basin, First Nations have a wealth of traditional ecological knowledge and spiritual connection to the natural world. Furthermore, these communities have historical title and rights to land and fisheries that are the focus of ongoing conflicts. Recognizing that the hope for reconciliation is tied to hope for salmon, FSWP seeks to engage First Nations and their world views in all four program areas.

### SOOWAHLIE FIRST NATION

Sweltzer Creek Enhancement Project Soowahlie in partnership with G3 Consulting Ltd. assessed a variety of ways to improve sockeye habitat on the Sweltzer Creek outlet of Cultus Lake, ncluding diverting cool, upwelling groundwater to educe temperatures.



ITO: DFO CULTUS LAKE SALMON RESEARCH LABORATORY



NICOLA WATERSHED COMMUNITY ROUND TABLE Nicola Water Use Management Plan A broad based coalition works together on solutions to water management issues in the watershed, which will help ensure the quantity and quality of water needed for fish.

#### PHOTO: CASCADES FOREST DISTRICT

DUCKS UNLIMITED CANADA Green Infrastructure Model By-law Pilot DUC works with local governments in the Cariboo Chilcotin on the regional application of a toolkit for green bylaws to protect fish and bird habitat.



### FISHERIES

For salmon fisheries to be sustainable, we must address the challenges of changing climate and the policy environment. Fisheries and Oceans Canada's Wild Salmon Policy requires that fisheries management protect the genetic diversity of wild salmon. New information and approaches are needed to improve the human decisions in fisheries management.

In support of the Wild Salmon Policy, our Improved Information/ Approaches for Sustainable Integrated Fisheries Management program area focuses on projects that offer:

- innovative approaches to in-season assessment of salmon abundance;
- strategies or technologies that reduce fisheries impacts on weak stocks and non-targeted species;
- insight into the impacts of climate change on salmon and how to mitigate them; and
- coordination, collaboration, and information exchange among related efforts and fisheries sectors.



VANCOUVER AQUARIUM PACIFIC OCEAN SHELF TRACKING (POST) PROGRAM

Determination of Cultus Lake Sockeye Run Timing POST tags Cultus Lake sockeye smolts, and then tracks both their out-migration and in-migration in the hopes of identifying where in the Fraser system high mortality is occurring.

SISKA INDIAN BAND Aboriginal Collaborative Salmon Management A fish wheel helps to select species for a fishery and to recover tags from Mission (see project to left). Inland commercial salmon fishery developed harvest planning, in-season stock assessment, and processing standards.



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PHOTO: DAVE MOORE

### XENI GWET'IN FIRST NATIONS GOVERNMENT Xeni Gwet'in Caretaker Area Fisheries

Community members work with technical consultants on stock and habitat assessment, thereby being trained to increase community's capacity to consult, negotiate, and manage their feb recourson



ASER BASIN COUNCIL D VARIOUS PARTNERS egrated Salmon logue Forum a collaborative and inclusive m enables all parties to k towards a fully integrated tainable salmon fishery in rs that respect the Wild non Policy and serve both ole and salmon.



PHOTO: CRAIG ORR, WATERSHED WATCH

FIRST NATIONS

First Nations Fisheries Dialogue Sessions The Council hosted a province-wide forum to create the BC First Nations Fisheries Council and an action plan to develop First Nations' unity on fisheries issues.





### KANAGAN NATIO

ALLIANCE Groundwater Habitat Interactions for Interio Fraser Coho Study investigates temperature patterns du to groundwater upwellir in streams, which likely create a thermal refuge for juvenile coho.



### ENGAGEMENT

The more citizens care about and understand how our well being is vitally connected to salmon and watersheds, the more motivated they are to change their behaviour and the behaviour of their organizations and institutions. To ensure an engaged citizen base, each region of the Fraser Basin needs a mix of activities that includes programs for key groups to understand their connection to the watershed, stewardship opportunities in a range of arenas, and strategic efforts to promote specific behaviour change.

The Education and Engagement program area seeks to efficiently cultivate this mix of activities throughout the basin with projects that:

- deliver watershed awareness programs with the potential to be basin-wide pilots;
- develop broad tools that build capacity of stewardship groups for training, funding, and collaboration; and
- employ innovative, targeted outreach strategies to reach key audiences in order to address specific behaviours.



### STREAM OF DREAMS MURAL SOCIETY

At schools and community festivals, nearly 6,000 participar

about how humans can improve their behaviour for the benefit of their watershed. Participants at each of 22 events created a fence mural of hand painted salmon – Dreamfish - as a reminder of the lessons.

#### FRASER VALLEY BALD EAGLE FESTIVAL SOCIETY

The Eagle - Salmon Connection Content about our ecosystems addresses interdependence, biodiversity, sustainability, and the need for conservation and is delivered through school curriculum and other means.



PHOTO: PETERDONALDSON.NET

### STEWARDSHIP CENTRE

FOR BC SOCIETY Stewardship Works! SCBC and the Ministry of Environment partner to understand and plan to address the core funding needs of communitybased stewardship groups in the Fraser Basin and throughout BC.



### THEYTUS BOOKS INC. First Nations Publication Media producers are scopi

Media producers are scoping a publication for decision makers about the relationshi of First Nations to salmon, highlighting how this relationship may influence conflicts about fisheries.



### LANGLEY ENVIRONMENTAL PARTNERS SOCIETY

Langley Thinks Salmon This local public awareness project uses a variety of outreach techniques to increase awarenesss of watershed ecosystems and potential impacts of daily activities on local streams.



### KINGFISHER INTERPRETIV

CENTRE SOCIETY KICS Salmon Education & Awareness Programs The living classroom provides experiential activity on topics such as salmon, their ecosystems and First Nations culture to school children, tourists, and other visitors.



PHOTO: SHONA BRUCE