

The Stakeholder Workshop Series- Water/Climate Change/Salmon



Workshop 1- Thursday July 21, 2011

Williams Lake, BC, Thompson Rivers University Campus

Meeting Convened by: Dr. Phil Owens, FRBC Research Chair in Landscape Ecology, UNBC

In collaboration with: City of Williams Lake, Fraser Basin Council, Cariboo Regional District, The Land Conservancy, Forum for Extension and Research in Natural Resources, Likely/Xat'sull Community Forest, Likely Chamber of Commerce, Council of Canadians, Williams Lake Field Naturalists, Horsefly River Roundtable, West Fraser Mills, Mount Polley Mining Corporation, Department of Fisheries and Oceans, Scout Island Nature Centre, Northern Shuswap Tribal Council, Alex Fraser Research Forest, Ducks Unlimited Canada, Gibraltar Mine Ltd., Alex Fraser Research Forest, Cariboo Chilcotin Conservation Society, Ministry of Environment

Aims of Workshop 1- Water:

- create a safe space to exchange knowledge about local land and water management, local policy development, and local research needs;
- address pertinent natural resource management issues with regards to water and explore *how* different stakeholders understand the same information in different ways;
- identify barriers to collaborating and knowledge exchange, and think of innovative ways to overcome these barriers.

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Biographies of Participants

Mauro Calabrese, RPBio, Planning Forester, West Fraser Mills

Mauro Calabrese is a Registered Professional Forester (RPF) and Biologist In Training (BIT). He has a degree in Forestry and Biology from the University of British Columbia. Mauro works for West Fraser Mills in Williams Lake as a Planning Forester. He also deals with Biology related issues for the division. Mauro was born and raised in Williams Lake.

Contact- mauro.Calabrese@westfraser.com

Katrina Caley, MSc Candidate, UNBC

Katrina Caley is a Master's of Science candidate under the direction of Dr. Phil Owens in the Natural Resources and Environmental Studies department at the University of Northern British Columbia. Her research has focused on evaluating the long-term variability of the sediment retention function of two wetland buffers in the central Interior of British Columbia. Prior to entering graduate studies, Katrina completed an undergraduate degree in Environmental Science at the University of Ottawa. Outside of the university, she has taken a strong interest in several outdoors activities, and has found herself on rock faces, rivers and hiking trails throughout the BC landscape.

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John Dressler, City of Williams Lake Water Advisory Committee and Spokesperson for the Council of Canadians

I am a retired educator with experience in high schools as well as both SFU and TRU. Since retirement I have been involved in a number of organizations. I have been an instructor in the Cariboo Chilcotin Elder College for a number of years. I have been a Director of the Williams Lake and District Credit Union for several years and a member of the Cariboo Regional District's Advisory Planning Committee for Area "E". I have been the Spokesperson for the Williams Lake Chapter of the Council of Canadians since 2005; this organization concerns itself with water issues to a large extent. I am also the Chair of the Water Advisory Committee for the City of Williams Lake. Recently, I helped to organize the formation of the Russet Bluff Community Association. The protection of a community water system is one of the priorities of this association.

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The Stakeholder Workshop Series- Water/Climate Change/Salmon

Philip Haseldine, Environmental Coordinator, Gibraltar Mines Ltd.

I joined Gibraltar Mines Ltd. in the capacity of Environmental Coordinator in February of this year. I am continuing to becoming familiar with the many and varied aspects of the position.

In the recent past the majority of my work has been for the forestry sector, specifically conducting slope stability hazard assessments for roads and proposed cut blocks on steep terrain. I am a Geoscientist-in-Training (GIT) and am currently applying for professional status with APEGBC.

I am also a Professional Agrologist, P.Ag, registered in B.C., specializing in the areas of land capability for agriculture, mine reclamation planning, and detailed soils mapping.

Lastly I am a Certified Professional in Soil Erosion and Sediment Control, CPESC, and am familiar with environmental site assessment and advanced erosion control planning.

I spend my spare time exploring the region with my wife and two young children. We are still acclimatizing to region after moving from Vancouver Island.

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Sue Hemphill, Environmental Educator Scout Island Nature Centre, Member of the Horsefly River Roundtable, Director Cariboo Chilcotin Conservation Society, and Treasurer Williams Lake Environmental Society

I was born and raised in Detroit Michigan many years ago. I spent summers at my grandparent's farm exploring all the things I couldn't find in my own backyard. I graduated (1969) from the University of Michigan with a BS in Science of Education and began teaching in inner city Los Angeles. I earned a MS in Special Education and kept on teaching, but always dragging my students outside to look at bugs, plants, dirt, etc. I found a partner, sailed for 5 years and then homesteaded near Horsefly BC in the middle of a forest. The logging of the forest bothered me so I went back to university and got a BS and MS in biology (botany is/was my thing), so that I could work intelligently on environmental issues. I spent 5 years doing botany field work, which I thoroughly enjoyed, but it kept me away from home too much. Now I focus on getting people of all ages outdoors exploring, enjoying and learning about nature—while continuing to work on environmental issues.

Sue's presentation topic- "Connection Then Knowledge"- Ecosystem interaction. Lack of understanding combined with the difficulty of comprehending research and technical development has resulted in policy that limits the damage to watershed rather than preserving them.

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There is no death in mortal things, and no end in ruinous death. There is only mingling and interchange of parts, and it is this that we call "Nature." Empedocles



The Stakeholder Workshop Series- Water/Climate Change/Salmon

Faye Hirschfield, PhD Candidate, UNBC

Faye Hirshfield is a PhD student at UNBC working on sediment scour of bridge piers under ice cover. Faye received her Bachelors and Masters in Environmental Science from UNBC. Faye's interest in hydrology began during a field school to South Africa and she has not been able to stay out of rivers and streams since. Faye has worked as a Water Technician for the Ministry of Environment and is also researching surface and groundwater interactions in the Kiskatinaw Watershed, Dawson Creek. Faye's PhD studies are taking place at QRRC as she is using the outdoor flumes to simulate a river channel for her bridge pier studies.

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Richard Holmes, M. Sc., R.P. Bio, President and Senior Project Scientist of Cariboo Envirotech Ltd. and Manager of the UNBC Dr. Max Blouw Quesnel River Research Centre.

Richard has been involved in fisheries and environmental work for 30 years and leads a team of integrated resource specialists dedicated to providing clients with the best possible solutions to their environmental problems. He has a broad background in British Columbia freshwater fishery issues and his interests include research and the sustainability of natural resources including the communities that depend on them. He continues to work with First Nations, Universities, industry including the ranching, mining and forest sectors, the federal and provincial governments, non-governmental organizations, and individual land owners. He is active in implementing eco-system based management planning for the Xenigwet' in First Nation Government in their Caretaker Area and managing their instream freshwater fishery for sockeye stocks migrating into the Chilko River. He is strong believer in increased local governance of watersheds.

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Alex Koiter, PhD Candidate, UNBC

Alex Koiter is a Ph.D. student at UNBC working under the supervision of Drs. Phil Owens and Ellen Petticrew. Alex received his B.Sc. in environmental science from the University of Guelph in 2006 and a M.Sc. in soil science from the University of Manitoba in 2008. From the beginning of his academic career, Alex has had an interest in soil and water conservation and protection. His current research focuses on better understanding soil erosion and sediment transport at the watershed scale using sediment fingerprinting (sediment tracing). The goal of this research is to explore how sediment moves from hill slope to watershed outlet and how this influences the sediment fingerprinting technique. When Alex is not in the field or in the lab he can often be found hiking, fishing, canoeing or skiing in the backcountry of BC.

Alex's presentation topic-Understanding non-point source pollution in watersheds using a sediment fingerprinting technique". A look at how the science of sediment tracing can help us understand pollution at a watershed scale and help us make better management decisions.

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Cathy Koot, R.P.Bio., Research Coordinator, Alex Fraser Research Forest

The AFRF was established in April 1987 and is held under Forest Act Tenure by the UBC Faculty of Forestry. The AFRF is managed according to provincial regulations and the Cariboo-Chilcotin Land Use Plan to provide an optimal environment for research, education and demonstration of integrated resource management (e.g. – forestry, cattle grazing, tourism and recreation, maintenance and enhancement of wildlife habitat, etc.)

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Don Lawrence, Senior Habitat Biologist, Fisheries and Oceans Canada

Fisheries and Oceans Canada (DFO) and its special operating agency, the Canadian Coast Guard, deliver programs and services that support sustainable use and development of Canada's waterways and aquatic resources.

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The Stakeholder Workshop Series- Water/Climate Change/Salmon

Mitch Minchau, Manager of Environmental Services, Cariboo Regional District and

Rick Brundrige, MCIP, Registered Planner Manager of Planning Services, Cariboo Regional District

The Cariboo Regional District is a regional government that functions independently of the provincial government. The Cariboo Regional District serves an estimated population of 63,000 residents and provides approximately 100 local government services for taxpayers including fire protection, emergency planning, environmental services and planning as well as library and recreation facilities.

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Phil Owens, FRBC Research Chair in Landscape Ecology, UNBC

Phil Owens is the Endowed Research Chair in Landscape Ecology at UNBC. He also co-directs the Quesnel River Research Centre. His main interest is how landscape disturbances and changes (such as climate change, land use change, mining, wildfires, and urbanisation) influence water and sediment quantity and quality in river basins. In particular, he is interested in tracing sediment and contaminants in rivers. He is also interested in how science can be used to inform improved management decisions, and is involved in a variety of organisations such as the European Union, US Army Corps of Engineers, and the International Atomic Energy Agency. He is Editor-in-Chief of the Journal of Soils and Sediments. Much of his work and that of his graduate students is based out of the QRRC.

Phil's presentation topic- "Pressure on water resources in an ever changing world" This presentation will address mitigation and adaptation to changes in water resources and aquatic habitats from agriculture, mining, and urbanisation.

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Margot Parkes, Canada Research Chair in Health, Ecosystems and Society, UNBC

My research orientation originated during training and work as a medical doctor in New Zealand and subsequently in public health, human ecology, and the emerging field of ecohealth, or ecosystem approaches to health. My interest in water-related determinants of health began with a focus on watershed management and public health in rural river catchments in New Zealand and has developed through work in Europe, Hawaii, Ecuador and Canada. My current research focuses on impacts of ecosystem change on social determinants of health especially in the context of watersheds in rural, remote and Indigenous communities. Another focus includes the design of education, research and governance options to address the converging objectives of health, social equity and ecosystem sustainability. Informed by the intersectoral, interdisciplinary and boundary-crossing nature of this work, I have specific interests in the collaborative and multi-stakeholder processes required to address complex issues at the interface of health and sustainability.

Margot's presentation topic- "Watershed governance as a vehicle for fostering social, ecological, and community health and wellbeing". Integrative approach to governance of water that focuses on watersheds for the basis for fostering community health, sustainability and social ecological resilience. How can research/policy be linked within an integrative approach to governance?

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Joanna Patterson, MSc Candidate UNBC

Joanna Paterson is a graduate student in the Community Health Science (MSc) program at UNBC. Joanna works as a research assistant with Dr Margot Parkes on a Waterways, Ecosystems & Health project based in Vanderhoof. Joanna's background in nutrition (BAsC, Ryerson University) has provided the groundwork for further understanding the determinants of health and associated health inequities. A continuing education certificate in food security and related research experience stimulated interests in qualitative research in stigmatized populations. She is especially interested in research ethics and the legal side of doing research with vulnerable populations. Her MSc thesis will look at various ethical considerations associated with medical tourism (for both home and host countries), specifically using a case study of Canadian multiple sclerosis patients traveling abroad for the new CCSVI/Liberation treatment.

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The Stakeholder Workshop Series- Water/Climate Change/Salmon

Erin Robinson, Research Associate for the University of Northern British Columbia's Dr. Max Blouw Quesnel River Research Centre and the Likely/Xat'sull Community Forest

I obtained my MA in cultural anthropology and natural resource management by studying the cross-cultural collaboration of First Nation and non-First Nation communities by researching the Likely Xat'sull Community Forest as a case study. I advocate focusing on similarities as well as common goals and interests that can be improved through cross-cultural work; stabilizing local control of the forest with *all* of its inherent values. Through my research, I am documenting how local people are exemplifying what can be accomplished when decision-making over land management is carried out at the grassroots level. Currently I sit on the Likely Community Forest Society (Likely's governing body for the Likely Xat'sull partnership) and the Likely Chamber of Commerce. My passions in life are parenting my son, serving my community, and advocating for sustainable treatment of our planet. Area of interest to me are: power and resistance, post-colonialism, local land management, and community advocacy.

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Mike Simpson, Senior Regional Manager, Fraser Basin Council

Mike Simpson is a facilitator and a forester who has lived in the Cariboo region of BC since 1994. His current position is Senior Regional Manager, Cariboo-Chilcotin and Thompson Regions, with the impartial non-for-profit organization Fraser Basin Council. His current work involves multi-stakeholder facilitation and mediation of complex environmental and natural resource management issues involving all levels of government, first nations, the private sector and civil society. His work before joining the Council in 2006 was in natural resource management consulting for the forest industry, government, woodlot licensee and first nations clients throughout the Southern Interior and Central Coast. Mike's education includes a BScF, University of Toronto in 1994, and MA conflict resolution, Royal Roads University in 2004. He's been a registered professional forester in BC since 1996. Mike is father to Abigail and Aaron and life partner to Holly. In his spare time he likes good coffee, hiking, backpacking, cross-country skiing, reading, cooking and avoiding all domestic duties and handyman chores.

Mike's presentation topic- "Collaboration on watershed governance and management: Fraser Basin council initiatives and lessons learned" – Links together environmental, economic, social sustainability and water supply allocation, management and governance. Works with multi-stakeholder watershed roundtables and communities (Nicola, Nechako, Horsefly).

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The Stakeholder Workshop Series- Water/Climate Change/Salmon

John Stace-Smith, Registered Professional Forester and Board Member, Likely Xat'sull Community Forest

John is a member of the Likely/Xat'sull Community Forest and works for the Xat'sull First Nation Band in Soda Creek.

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Gord Sterritt, Fisheries Resource Manager, The Northern Shuswap Tribal Council

The primary purpose of the Northern Shuswap Tribal Council (NSTC) is to assist members and to act on behalf of member First Nations at the request of, and under the direction of, the member First Nations.

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Pat Teti, Registered Professional Geoscientist and Research Hydrologist

Pat Teti has an M.Sc. in Physical Geography from UBC, is a registered Professional Geoscientist, and was a Research Hydrologist with the Provincial Government in Williams Lake for 18 years. He is now an Emeritus Scientist with the Ministry of Forests, Lands and Natural Resource Operations. As a researcher, he studied the effects of timber harvesting and natural processes on forest structure, snow hydrology, and stream shade using instruments and methods that he developed. He invented a simple hand-held instrument for measuring shade and developed methods for taking his own vertical aerial photos from which stem maps could be made. This resulted in the first known documentation of an aerial method for sampling the secondary structure of beetle-attacked pine stands.

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Katharine VanSpall, Ducks Unlimited Canada

Ducks Unlimited Canada (DUC) has been committed to **wetland conservation** for more than 70 years. Despite this, wetland loss continues across Canada. Up to 70 per cent of wetlands have disappeared in settled areas of the country. DUC—a national, private, non-profit organization—is committed to conserving Canada's wetlands. It's a responsibility DUC does not take lightly.

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The Stakeholder Workshop Series- Water/Climate Change/Salmon

David Zirnhelt, Board of First Nations Agriculture Association, Grasslands Conservation Council of BC

David Zirnhelt is a rancher and a consultant in economic development and land use policy. He is from the Cariboo region of BC, and has worked extensively with First Nations in the Province. He and his family raise grass feed beef, woodlot products, lumber and build timber frame houses. David has been doing farm research and production of industrial hemp. David's formal education is in Political Science, but he has been a student of agriculture and forestry and has farmed for over 30 years. David serves as advisor to Board of First Nations Agriculture Association. David was an elected member of the Legislature in BC for 12 years from 1989 to 2001. While in the legislature he served as Minister of Economic Development; Agriculture, Food & Fisheries; Aboriginal Affairs; and Forestry.

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