



Fraser Basin Council

10 YEARS

Bringing People  
**Together**



**2007-2008  
Annual Highlights**

for

**Social well-being**

a vibrant economy

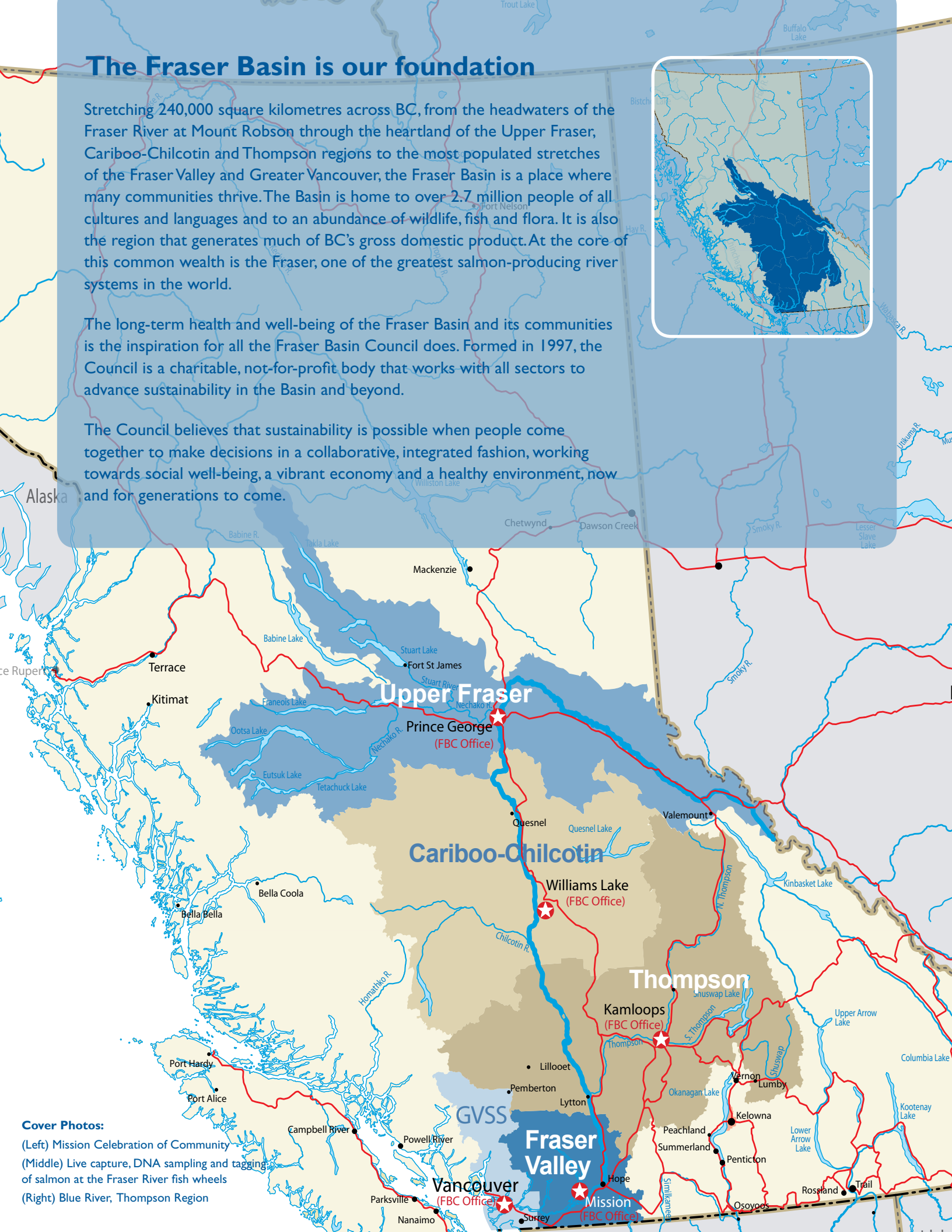
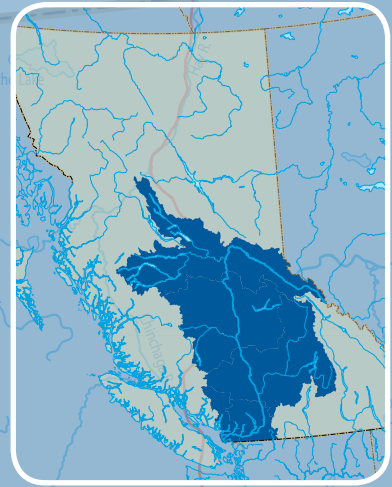
a healthy environment

# The Fraser Basin is our foundation

Stretching 240,000 square kilometres across BC, from the headwaters of the Fraser River at Mount Robson through the heartland of the Upper Fraser, Cariboo-Chilcotin and Thompson regions to the most populated stretches of the Fraser Valley and Greater Vancouver, the Fraser Basin is a place where many communities thrive. The Basin is home to over 2.7 million people of all cultures and languages and to an abundance of wildlife, fish and flora. It is also the region that generates much of BC's gross domestic product. At the core of this common wealth is the Fraser, one of the greatest salmon-producing river systems in the world.

The long-term health and well-being of the Fraser Basin and its communities is the inspiration for all the Fraser Basin Council does. Formed in 1997, the Council is a charitable, not-for-profit body that works with all sectors to advance sustainability in the Basin and beyond.

The Council believes that sustainability is possible when people come together to make decisions in a collaborative, integrated fashion, working towards social well-being, a vibrant economy and a healthy environment, now and for generations to come.



## Cover Photos:

- (Left) Mission Celebration of Community
- (Middle) Live capture, DNA sampling and tagging of salmon at the Fraser River fish wheels
- (Right) Blue River, Thompson Region

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### Who We Are

Photo: Board briefing by Yale First Nation in October, 2007

Formed in 1997 to advance sustainability in the Fraser River Basin, the Fraser Basin Council is a collaboration of the four orders of Canadian government, including First Nations, and representatives from the private sector and civil society. Directors make decisions by consensus, in accordance with principles set out in FBC's Charter for Sustainability. The Council is one of the first non-profits of its kind in Canada, and has shared its experience with others in the country and abroad who are interested in collaborative governance. The Council helps communities work on sustainability issues through staff in five regional offices.



### What We Do

Photo: Board and staff tour Bridge Creek Ranch, 100 Mile House, in June 2007 to learn about the Ranch's ecoforestry, wetlands preservation and creek restoration projects.

Many of today's most pressing issues are, at their heart, sustainability issues. To find integrated solutions that last, it is often important to overcome jurisdictional hurdles and other challenges through collaboration across sectors. The Council serves as a catalyst and impartial facilitator, bringing people together to that end. The Council also raises awareness of sustainability and its importance; monitors progress towards sustainability by reporting on key indicators; and delivers a variety of partnership programs in BC. These range from initiatives that encourage a greener transportation sector, to those that support watershed and water-use planning and those that build economic resilience in rural communities.



### Why We are Celebrating

PHOTO: Several of FBC's founding Directors and Executive Director David Marshall share happy memories during the Council's 10th Anniversary celebration.

The Fraser Basin Council celebrated its 10<sup>th</sup> Anniversary in June 2007, marking a decade of service to communities of the Basin. The Council's success is thanks to its many partners and supporters who have demonstrated a deep commitment to sustainability and to collaboration as a way of finding lasting solutions. Over the years, the Council has been gratified to see innovative leadership at its best: times when multiple interests converge and leaders find common ground. That is something to celebrate!

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# Fraser Basin Council Directors

as of March 31, 2008:

**Dr. Charles Jago**

Chair, Fraser Basin Council  
Past President,  
University of Northern British Columbia,  
Prince George

**Deborah Abbott**

Executive Director, Nlaka'pamux Nation Tribal  
Council, Lytton, Nlaka'pamux language group

**Duncan Barnett**

Director, Cariboo Regional District,  
Williams Lake

**David Barratt**

Harbour Master, Harbours & Ports, Mission

**Ervin Charleyboy**

Chief, Alexis Creek First Nation, Williams Lake,  
Ts'ilhqot'in language group

**Rose Charlie (De-lix-hwia)**

Grand Chief, OBC, LL.D. (Hon), Fraser Valley  
Region, Halq'eméylem language group

**Linda Coady**

Vice President, Sustainability, VANOC - 2010  
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**Sheilagh Foster**

Artist, McBride

**Dan George**

President, Four Directions Management Services,  
Carrier language group, Prince George

**Leah George-Wilson**

Chief, Tsleil-Waututh Nation, North Vancouver,  
Hun'qumyi'num' language group

**Judy Guichon**

Rancher, Gerard Guichon Ranch Limited,  
Quilchena

**Joan Hesketh**

Deputy Minister, Ministry of Environment,  
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**Duncan Jeffries**

Instructor, Computer Information Systems,  
University College of the Fraser Valley,  
Abbotsford

**Colin Kinsley**

Director, Fraser-Fort George Regional District,  
Prince George

**Paul Kluckner**

Acting Regional & Director General, Environment  
Canada, Vancouver

**Ken Melamed**

Director, Squamish-Lillooet Regional District,  
Whistler

**Michael O'Brien**

Vice President, Vancouver International Airport  
Authority, Vancouver

**Alan Osborne**

Executive Director, Intergovernmental Relations  
and Planning Division, Ministry of Community  
Services

**Bob Patterson**

Manager, Government & Environmental Affairs,  
Taseko Mines, 150 Mile House

**Bob Peart**

President, The Nexus Learning Group, Sidney

**Jerry Petersen**

Director, Regional District of Bulkley-Nechako,  
Vanderhoof

**Terry Raymond**

Vice-Chair, Fraser Valley Regional District, Boston  
Bar

**Perry Redan**

Chief, Sekw'el'as Band, Cayoose Creek  
St'atl'imx, Lillooet, S'á imcets language group

**Mike Retasket**

Chief, Bonaparte Indian Band

**Gerry Salembier**

Assistant Deputy Minister,  
Western Economic Diversification, Canada,  
Vancouver

**George Saddleman**

Representative, Okanagan Nation Alliance,  
Okanagan language group, Merritt

**Bob Smillie**

Retired Physician, Kamloops

**Paul Sprout**

Regional Director General, Fisheries and Oceans  
Canada, Vancouver

**Coro Strandberg**

Principal, Strandberg Consulting, Burnaby

**Tracy Summerville**

Assistant Professor, University of Northern  
British Columbia, Prince George

**Rene Talbot**

Director, Columbia Shuswap Regional District,  
Falkland

**John Taylor**

Director, Thompson-Nicola Regional District,  
Kamloops

**Bev van Ruyven**

Executive Vice-President, Customer Care and  
Conservation, BC Hydro, Vancouver

**David Van Seters**

President, Small Potatoes Urban Delivery,  
Vancouver

**Laurie Vaughan**

Forestry Consultant, Anahim Lake

**Richard Walton**

Director, Greater Vancouver Regional District  
(Metro Vancouver), North Vancouver

**Thanks to all Directors who  
completed service in 2007-2008:**

**Randal Cripps**

Regional Director, Corporate Branch - Pacific/  
Yukon Region, Environment Canada, Vancouver

**Eddy Jules**

Chief, Skeetchestn Indian Band, Savona,  
Secwepemctsin language group

**Peter Ladner**

Director, Greater Vancouver Regional District,  
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**Rhona Martin**

Director, Columbia Shuswap Regional District,  
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**Bruce Sampson**

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**Chris Trumpy**

Deputy Minister, Ministry of Environment,  
Victoria

**Jim Wild**

Area Director, Lower Fraser River Area, Fisheries  
and Oceans Canada, Delta



Fraser Basin Council Directors and staff, on tour in the Fraser Valley in October, 2007

## Message from the Chair



2008 is a celebratory year. It is the 150<sup>th</sup> anniversary of the founding of British Columbia as a Crown Colony. It is also the 200<sup>th</sup> anniversary of Simon Fraser's famous voyage down the river that now bears his name. Finally, it is the 10<sup>th</sup> anniversary of the Fraser River being recognized as a Canadian Heritage River.

If these anniversaries were not reason enough for reflection within the Fraser Basin Council, they followed another significant anniversary: The Council itself reached a milestone, turning 10 years old in June 2007. There is much to be proud of from this first decade of service: formation of the Nechako Watershed Council; early work that prompted clean-up of the Britannia mine site; the success of the debris trap in protecting people and property in the lower Fraser; and an effective role in Fraser River flood hazard management. These are but some of the Council's major accomplishments.

The Council has also established itself as a model of collaborative governance, bringing together the four orders of government –

federal, provincial, municipal/regional and First Nations, along with citizen and business leaders who make decisions by consensus. Through its success, the Council has proved repeatedly that citizens and governments can work together to address difficult issues in a positive and effective way.

As British Columbia and the Fraser Basin Council look forward to the next chapters of their respective stories, past successes must not be allowed to obscure the challenges ahead. The challenges of sustainability are ones we all share. Key ones will be detailed in the Fraser Basin Council's *Sustainability Snapshot 4* report, to be issued in early 2009. Like its predecessor reports, *Snapshot 4* will provide economic, social, and environmental indicators with which to measure the health of the Fraser River Basin. In report card form, it will identify those areas where together we are meeting the challenge of sustainability and where we are falling behind.

For the Council, *Snapshot 4* is likely to be a call to action – a report that will guide the Council in identifying the most critical sustainability issues facing the Basin, the region that is our primary focus, as well as issues that transcend the Basin.

Today the Council is playing a major leadership role in the Basin and across BC. We are, for example, improving the environment performance of vehicular fleets through the E3 Fleet rating system, and taking a lead role in guiding

BC's communities to develop integrated sustainability plans. And as a model of collaborative governance, the Council will continue to share experiences with others and, through dialogue, learn from them.

For British Columbia and the Fraser Basin Council, the anniversaries celebrated over the past year remind us to take stock, to be honest about our successes and failings, and to direct our attention to the future. It is a time to think about future generations and of our legacy to them.

Herein lies the sustainability challenge, for sustainability is not about preserving the status quo or about returning to some idealized "golden age" in the past. It is about identifying those values that are important to ensure an integrated and healthy relationship between human societies and their natural environments. It is about working to maintain or improve the health of human communities and natural ecosystems alike. It is about living sensibly with ecological sensitivity while addressing the many challenges facing us as citizens living locally within a constantly changing global society. It is about being trustees charged with a responsibility to ensure that we will leave our part of the world in the best shape possible for our children and our children's children.

It's time to get on with this task.

— Dr. Charles Jago

# Climate Change and Air Quality

## Greening BC's Fleets

Combatting climate change, mitigating its impacts, and improving air quality are all critical to sustainability. For the Fraser Basin Council, a key focus is on greening up the transportation sector — private and public sector fleets in particular. Transportation now accounts for about 40% of all greenhouse gas emissions in BC, the greatest portion attributable to vehicles, including on-road fleets, such as freight trucks, municipal and utility vehicles, buses, taxis, police cars and emergency vehicles.

In 2007, several initiatives were launched under the banner of Green Fleets BC, funded by the BC Ministry of Environment. Through this multi-year program, FBC promotes fuel-efficient technologies, offers incentives for demonstration projects, documents fleet data, celebrates success stories and hosts a fleet managers network. Once convinced of the value of green technologies, fleet managers and owner-operators can have a tremendous impact, by making changes in their own fleets and by inspiring others in their industry.

## Welcome, enviroTruck

Long-distance trucking is a business where miles means money — money earned and money burned. When it comes to fuel efficiency and lower emissions, the fact is that new trucks beat old trucks. The question is, how to encourage truckers to invest in new trucks sooner rather than later?

In partnership with the BC Trucking Association and the Canadian Trucking Alliance, and with funding from the Province of BC, FBC has started down that road. In early 2008 Green Fleets BC offered financial incentives to fleets to encourage the purchase of new “enviroTrucks.”



Jatinder Parhar (left) discusses hybrids with BC Environment Minister Barry Penner (right) and FBC Executive Director David Marshall. Mr. Parhar, a special guest at the launch of the Green Fleets BC program, was the first taxi operator in Victoria to buy a hybrid taxi, which logged over 400,000 kilometres. He has proved to be a champion of change, and BC is now a North American leader in use of hybrid taxis. Green Fleets BC encourages other leaders in fleets across BC to adopt green technologies that cut emissions and improve efficiency.

Each participating fleet in the program has committed to purchasing a Class 7 or 8 heavy-duty vehicle with a newer model diesel engine that cuts fuel use by up to 20%, greenhouse gas emissions by 20%, and smog-producing emissions by 90%. To qualify as an enviroTruck, a vehicle is also outfitted with:

- a speed limiter to prevent a truck from going over a pre-set speed limit, thereby decreasing fuel consumption and greenhouse gas emissions;
- aerodynamic additions, expected to cut greenhouse gas emissions by 17.5 tonnes per truck each year; and
- a choice of other features, such as an auxiliary power unit that reduces idling time and is expected to cut annual greenhouse gas emissions by 13.5 tonnes per truck.

## Hybrid Experience Report.

Hybrid electric vehicles, large and small, are

fast becoming popular fleet additions. The Hybrid Experience is a website that logs the real-life experience and fuel efficiency results of hybrids. FBC is compiling information on fuel performance, reliability and driver experiences with hybrids. Fleets are invited to share their own data. Also on the site is a calculator that compares the cost of hybrids and other vehicles. Visit [www.hybridexperience.com](http://www.hybridexperience.com).

## BC BioFleet

By 2010, BC will introduce a 5% renewable fuels standard. For fleet managers unfamiliar with biodiesel, as well as those interested in using a higher blend, help is at hand. BC Biofleet, hosted by FBC, offers public and commercial vehicle fleet managers in-depth information on use of biofuels. Go to [www.biofleet.net](http://www.biofleet.net) for studies, videos and other resources, a schedule of training workshops, branding opportunities, plus an easy way to find suppliers through Canada's Green Fuels Map. In 2007-2008, 23 BC fleets piloted biodiesel, thanks to incentives funded

by the BC Ministry of Environment and Western Economic Diversification Canada and several private sector partners.

## E3 Fleet

E3 Fleet is the first program in North America to review and rate excellence in fleet management practices. Developed by fleet managers for fleet managers, this program offers a green rating guide, a points system for assessing fleets, a third-party fleet audit and, for fleets that qualify, a rating of Bronze, Silver, Gold or Platinum.

The City of Hamilton Public Works Depart-

ment earned the first E3 Fleet Silver Rating in May 2007, having implemented a green fleet plan that improved fuel efficiency by 5% for every kilometre travelled, and decreased greenhouse gas emissions by 2% per kilometre. Also during the year, the Ontario Ministries of Transportation and Finance and the Canadian Energy Efficiency Alliance offered local governments an opportunity for an E3 Fleet review to help find ways to lower their fleet fuel consumption, operating costs and emissions. E3 Fleet has attracted interest nationally, and in 2007-2008 the number of participating fleets across Canada rose from 16 to 49, managing over 30,000 vehicles.

## Helping Communities in Leading Change

### CAEE

The Community Action on Energy and Emissions (CAEE) program provides financial and technical support to local governments and First Nations to advance energy efficiency, energy conservation and emissions reductions through innovative policy and planning. FBC oversees this program on behalf of the Province of BC and other partners.

Since the launch of CAEE in 2004, 44 local and First Nations governments have participated. In 2007-2008 alone, 14 communities joined the program. Six of the communities used the funds to create community energy plans or greenhouse gas emissions reduction plans. Others have focused on transportation and renewable energy projects. Whistler, for example, has developed an emissions calculator to help visitors purchase carbon off-sets for their travel. Ktunaxa First Nation is looking into the feasibility of a micro-hydro project and Ucluelet is researching wave energy.

Of special note are the 10 CAEE Gold communities. Each has committed to implementing specific energy efficiency targets for new and existing civic buildings and at least one of six provincial targets to green up new or existing private sector buildings.

Dawson Creek, for example, is promoting participation in the BOMA Go-Green program (audits, retrofits, certification) and is researching the feasibility of solar power for commercial buildings. Other communities, such as Nanaimo and the District of North Vancouver, are developing incentives to encourage green building development, and the City of Vancouver is strengthening requirements in its building code.

### BC Clean Air Research Fund

FBC is secretariat to the BC Clean Air Research Fund (BC CLEAR), a program funded by the BC Ministry of Environment and Environment Canada, with additional support from Metro Vancouver. The Fund promotes internationally significant research of strategic importance for the management of air quality in British Columbia.

### Idle Free BC

Idle Free BC, hosted by FBC, supports community action to curb unnecessary idling. The program offers a resource toolkit on jump-starting a local campaign. By the spring of 2008, the program had assisted over 29 local governments, community organizations and private sector organizations, including those in transportation and agriculture.



A TransLink diesel bus now runs cleaner on biodiesel. A 2008 federal-provincial investment helped several sectors test biofuels in their operations.



Over 78 people came to Penticton in March 2008 for the **BC Clean Air Forum** organized by FBC in partnership with the Ministry of Environment, to explore opportunities for improving air quality in the agricultural sector.



FBC was proud to partner with the Community Energy Association in publishing *Energy Efficiency & Buildings: A Resource for BC's Local Government*. This popular guide offers policy tools and examples of BC communities taking positive steps to improve their energy profile: see it at [www.fraserbasin.bc.ca](http://www.fraserbasin.bc.ca). Watch for the next edition, to be released in early 2009.



FBC hosts an educational outreach and support program — the **BC Climate Exchange**. Visit [www.bcclimatexchange.ca](http://www.bcclimatexchange.ca) for tools, resources and recent news of climate change action. Also stop by **Idle Free BC** ([www.idlefreebc.ca](http://www.idlefreebc.ca)) to find out how to begin an idling reduction program.

# Flood Hazard Management



The BC Flood Forum, organized by the Fraser Basin Council with support from the Province of BC and Public Safety Canada, drew 130 elected officials and key staff from federal, provincial, local and First Nations governments and others with flood-related responsibilities to share information, experiences and perspectives on flood hazard management and response.

## Spring Freshet 2007: Wake-up Call

The threat of flood loomed large for a number of BC communities bordering the Fraser River in the spring of 2007. Mountains held near-record snowpacks, particularly in the north, and as spring turned into summer and the snowmelt began in earnest, everyone kept a watchful, worried eye on the river. There was particular cause for concern on the lower Fraser. The previous year, a hydraulic modelling study of the Lower Fraser, overseen by the Fraser Basin Council for the Ministry of Environment, showed that flood infrastructure would be insufficient to withstand a major flood equivalent to a flood of record, such as the Fraser Valley flood of 1894 or the second largest flood in 1948.

The 2006 hydraulic model showed that, should high waters reach the same level of those of 1894, dikes would be overtopped in one or more locations from Kent to Coquitlam on the north bank and from Chilliwack to Surrey on the south bank, causing massive flooding.

Experts have predicted a one-in-three chance of another flood equivalent to the flood of 1894 within the next 50 years. There is high potential for loss. Over 300,000 people now live in the Lower Fraser River floodplain, and a major flood could result in injury and loss of life, billions of dollars in damage to private and public property, temporary loss of key infrastructure and community services, and disruption of business and trade.

Given these factors, flood quickly became

a matter of high priority for the public and for decision-makers. The Province of BC, which had already adopted a new design flood profile based on the hydraulic model, committed \$33 million to assist local governments with urgent flood protection works to repair known deficiencies, and in some cases to upgrade dikes. The federal government subsequently stepped up to share this cost.

Some northern interior communities experienced freshet floods in 2007, although none of the flooding was as extensive as first feared. The Lower Mainland and Fraser Valley ultimately “dodged the bullet.” And while it was a grim period, communities gained valuable experience in fine-tuning emergency response plans and educating residents and businesses on flood risks and evacuation preparations.

## Tooling Up in Local Government

Since its inception in 1997, the Fraser Basin Council has supported all orders of government in developing integrated flood hazard management tools, such as the hydraulic model and dike crest gauge installations. In 2007-2008 the Council assisted Mission, Abbotsford, Kent and Harrison in developing floodplain maps. These maps complement the new hydraulic model by showing local topography, and the extent and depth of flood waters in various locations during different dike breach scenarios.

Both the flood model and maps are tools to support land use planning, flood mitigation and emergency response. The City of Abbotsford, for example, is in the process of updating its flood construction levels, and was able to use the dike breach



analysis for emergency planning during the 2007 spring freshet, for evacuation notices and for identifying high, medium and low-risk areas for phased evacuation plans.

## Review of New Roles

In 2007 the Fraser Basin Council began a review of floodplain management policies and practices in BC, with funding from the BC Ministry of Environment. The review followed provincial legislative changes in 2003 and 2004 that altered the respective roles and responsibilities of the Province of BC and local governments in flood hazard management. Most notably, local governments no longer require approval from the Ministry of Environment in establishing floodplain bylaws and subdivision approvals in flood hazard areas.

The purpose of FBC's review was to learn what changes local governments have made under the amended legislation, what is working well, what challenges or concerns exist, and what improvements are needed. Local governments and others involved in making land use decisions in flood hazard areas were invited to participate in an online survey. As of March 2008, nearly 100 surveys had been completed by respondents having different responsibilities and representing different regions, communities and organizations across BC. The project will be completed in 2008.

## BC Flood Forum 2008

The spring freshet floods of 2007, and the more recent Prince George winter flood in 2008, are reminders of why a long-term, collaborative flood mitigation strategy for BC is important.

Thanks to an emerging spirit of collaboration, and to federal and provincial funding, the Fraser Basin Council organized BC's first-ever Flood Forum on January 18, 2008. The event brought together over 130 elected officials and key staff with roles

on flood hazard management to share experiences and focus on strategies for the future. Several key findings emerged:

- Both the federal and provincial governments are renewing commitments to a province-wide mitigation strategy.
- Because there are shared responsibilities for flood among different orders of government, there is a need for inclusive, coordinated and collaborative planning.
- Multiple flood management approaches are needed, including land use planning, diking and emergency planning and response.
- Flood management plans and strategies need to adapt to change, including the challenges of population growth and the impacts of climate change on river hydrology.

## \$160 Million Committed

A commitment to flood hazard management over the long term is critical. In the

fall of 2007, the Province of BC announced \$100 million in funding over 10 years for flood protection across BC. In the spring of 2008, the federal government stepped forward with a commitment of its own: \$60 million over six years would be earmarked for flood mitigation in BC, under the "Building Canada" infrastructure plan. The Fraser Basin Council was pleased to see such leadership and long-term financial commitments.

The challenge now is to make good decisions for the future. Flexibility is key to flood prevention, as is good science and an integrated approach. Steve Litke, Manager of the Fraser Basin Council's Flood Hazard Management Program, noted at the BC Flood Forum that no single solution can adequately protect communities. Diking and drainage systems are critical in many areas, for example, but local land use decisions in flood-prone zones are also important to limit the risk. The risk of flood on the Fraser River cannot be overcome, only managed. Respect for the river, as a river, is the first lesson in managing that risk.



Maple Ridge dike work on the Fraser near Kanaka Creek in 2007. Photo courtesy of the District of Maple Ridge.

# Fraser Salmon and Watersheds

The Fraser Salmon and Watersheds Program (FSWP), co-managed by the Fraser Basin Council and the Pacific Salmon Foundation (PSF), draws together many caring British Columbians who are working to ensure the health, diversity and sustainability of wild Pacific salmon populations and the watersheds they depend on. This is a critical challenge, at a time when many salmon runs are extinct or at risk – and when all salmon are impacted by expanded development, climate change and other threats to water and habitat.

There are 130 species that depend on salmon abundance for survival. Salmon, in turn, depend on healthy watersheds.

FSWP focuses on three overarching goals: 1) to foster effective communications and governance approaches; 2) to protect and restore habitat and water and 3) to support responsive and effective fisheries management, as reflected in four program areas.

The program seeks the engagement of First Nations in all program areas, and receives advice from its funding advisory groups and from the Fraser Assembly, another advisory group of people actively involved in the sustainability of salmon and watersheds.

FSWP is funded by the provincial Living Rivers Trust Fund, which committed \$10 million over four years, and Fisheries and Oceans Canada's Fraser Basin Initiative, which committed \$10 million over five years, contributed as \$5 million cash and \$5 million in technical expertise, staff time and resources. The Pacific Salmon Endowment Fund Society provides \$5 million over five years towards capacity at PSF, along with commitments from private sector partners.

In 2007-2008 the Fraser Salmon and Watersheds Program invested \$3.5 million in 60 projects across the Fraser Basin. Another \$3.3 million was slated to support 79 projects over 2008-2009, with a focus on:

- watershed planning and governance
- habitat restoration and stewardship
- sustainable fisheries management
- education and engagement.



**Left:** Riparian fencing helps keep cattle out of sensitive streams, one of many projects benefiting farmland and fish, thanks to the BC Cattlemen's Association. **Above:** A fish wheel at Siska is a tool for stock assessment. **Below:** Mike Wallis of the Salmon River Roundtable, hard at work anchoring large woody debris to enhance salmon habitat.





The Nicola Watershed Community Roundtable is identifying ways to manage a limited water supply in the Nicola Valley, to ensure that water remains available to meet multiple needs of communities and the environment.

## Watershed Planning and Governance

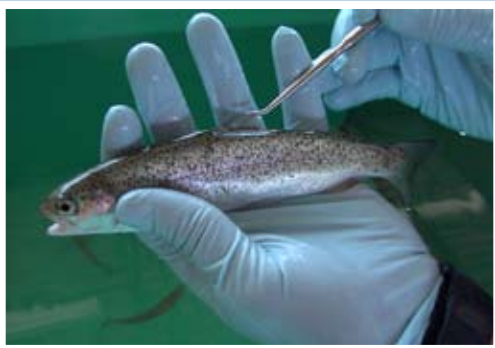
FSWP fosters collaborative governance of the Fraser Basin that has a watershed focus and brings together people from different sectors to discuss resource use and conservation. The program also supports regional pilot projects within sub-basins, such as local water use management initiatives. Projects underway in 2007 included that of the **City of Coquitlam** and **Kwikwetlem First Nation** who are collaborating on watershed planning, a state of the river summary and communication tools; the **Integrated Salmon Dialogue Forum**, in which participants are canvassing options for a sustainable salmon fishery; and the **Fraser River Salmon Table**, a place where the commercial sector, Sto:lo and other Lower Fraser First Nations are continuing joint efforts for the restoration and stewardship of Cultus Sockeye.



Soowahlie First Nation, in partnership with G3 Consulting Ltd., is evaluating sockeye habitat options at the Sweltzer Creek outlet of Cultus Lake, including a diversion of cooler upwelling groundwater to reduce water temperature.

## Habitat Restoration and Stewardship

FSWP funding is directed at restoring habitat and improving fish access in high-priority watersheds and developing and promoting best management practices. Among projects supported in 2007-2008 was the **Salmon River Roundtable**, which has restored over 125 habitat sites, thanks to a high level of collaboration and cost-sharing by local landowners and other funders in the Salmon Arm region. Another initiative is the **BC Cattlemen's Farmland-Riparian Interface Stewardship Program (FRISP)**, which works with agricultural producers to protect salmon habitat on farm property. Understanding the forces at work in the watershed, and how they affect salmon habitat, is important. The **Upper Fraser Fisheries Conservation Alliance** is studying the historic impacts of pine beetle infestations, and the **UBC Department of Forestry** is analyzing beetle-influenced changes to waterflow.



The Vancouver Aquarium is leading the Pacific Ocean Shelf Tracking (POST) project, which tags Cultus Sockeye smolts, tracks their migration and identifies sources of mortality.

## Sustainable Integrated Fisheries Management

Fisheries management that reinforces the Wild Salmon Policy is critically important for FSWP. This includes innovative approaches to in-season assessment of salmon abundance; strategies and technologies to reduce fisheries impacts on weak stocks and non-targeted species; research on the impacts of climate change on salmon; and coordination and collaboration among related initiatives and fisheries sectors. The 2007 projects included a fish wheel at Mission to capture, tag and take biological samples, and to assess stock abundance and health. Another wheel at Siska, overseen by the **Siska Indian Band**, helped in tag recovery, harvesting planning, in-season stock assessment and processing standards. Also underway was a study on groundwater interaction, led in 2007 by **Okanagan Nation Alliance**, and a study by **Xeni Gwet'in First Nation** on stock and habitat assessment.



How do they swim that far? A young artist reflects on the wonder of salmon. The 2007 Stream of Dreams program involved 6,000 participants in art projects across BC.

## Education and Engagement

Connecting people with their watersheds and fostering stewardship are important to sustainability. In 2007, FSWP supported community outreach across the Fraser Basin, including a campaign by the **Langley Environmental Partners Society** to encourage people to care for the health of local streams. Other funded projects include the **Kingfisher Interpretive Centre Society** near Salmon Arm where "living classrooms" captivate visitors and offer insights on First Nations culture and on salmon and ecosystems. Recognizing that local stewardship groups are the foundation of in-stream work and community outreach, the **Stewardship Centre for BC** and the **BC Ministry of Environment** are exploring ways to support stewards better: visit [www.stewardshipcentre.bc.ca](http://www.stewardshipcentre.bc.ca).

# Sustainability – at Home and Abroad



## Water Governance Workshops

Water is a precious resource, vital to life and wasted at our peril. The Fraser Basin Council facilitated four regional workshops in 2008 to discuss the future of water governance: in Langley, Prince George, Nanaimo and Kelowna. These workshops were hosted by the BC Ministry of Environment, in partnership with Georgia Basin-Vancouver Island Living Rivers, Fisheries and Oceans Canada and FBC. They drew federal, provincial, local and First Nations government participants, along with others in industry, agriculture and stewardship groups. The purpose? To explore water challenges in BC and alternative governance models. Summary reports on this pressing issue are now available on the FBC website.

The Province is beginning a dialogue on water governance, which is a focus under Living Water Smart: British Columbia's Water Plan.

## Aboriginal Drinking Water Forum

It's a troubling fact that many First Nations in Canada do not have adequate access to clean drinking water. Some 30 First Nations communities in the Fraser Basin alone face problems with water quality, quantity or both.

In March 2008 the Fraser Basin Council, with funding from Environment Canada and Indian and Northern Affairs Canada, hosted an Aboriginal Drinking Water Forum in Northern Shuswap traditional territory in Williams Lake to discuss the protection and sustainability of drinking water and local concerns. A consistent theme emerged from the forum: that First Nations recognize the significance and sacredness of water and would like to see a wider reliance on traditional ecological knowledge in making decisions about water. This means taking a longer term view and valuing water as something more than an economic commodity. Today, urbanization, agriculture, pollution and development are adversely affecting First Nations' relationship with water and their ability to safeguard water for future generations.

Forum participants agreed on an action plan for the short, medium and long term. The Fraser Basin Council is reviewing the recommended actions to see how the Council might support positive change.

## Helping Communities Plan for Sustainability

In the spring of 2007, the BC Ministry of Community Services and the Fraser Basin Council delivered a series of 11 regional workshops across BC to introduce local governments to a new funding program in support of Integrated Community Sustainability Planning (ICSP).

Sustainability Planning is a priority under the 2005 Gas Tax Agreement signed by the federal, provincial and BC local governments (represented by the Union of BC Municipalities). The initiative ties in closely with the Province's goals of addressing climate change and encouraging the development of healthier and more sustainable communities.

The initial workshops helped local governments begin to identify their long-term planning challenges and assess their readiness to begin sustainability planning.

Over 250 local government elected officials and senior staff, representing 107 communities, participated in the workshops. They were joined by representatives of Smart Growth BC, the BC Community Energy Association, BC Healthy Communities and the Real Estate Association of BC – Communities in Transition, and other organizations. Other elected officials and residents from rural and northern communities also heard presentations while attending annual gatherings for their respective organizations.

## Smart Planning for Communities

As a result of recommendations that followed the ICSP workshops (see page 10), the Fraser Basin Council has been asked to deliver a new BC-wide initiative, Smart Planning for Communities, to provide resources and tools to local and First Nations governments for planning socially, culturally economically and environmentally sustainable communities.

FBC administers this initiative on behalf of BC Hydro, BC Ministry of Agriculture and Lands, BC Ministry of Community Development, BC Ministry of Environment, First Nations Mountain Pine Beetle Initiative, Indian and Northern Affairs Canada and the Real Estate Foundation of BC.

To learn more about Smart Planning for Communities, visit [www.fraserbasin.bc.ca](http://www.fraserbasin.bc.ca).

## On the International Front

The Fraser Basin Council has been privileged to share its experience in collaborative decision-making through participation in four international projects in 2007-2008: in Brazil, China, Indonesia and Iraq. This work is possible thanks to strong partnerships with academic and private and public sector partners, and for several of these projects, funding from the Canadian International Development Agency (CIDA).



In 2007, FBC organized two cross-Canada learning tours for Chinese officials who are grappling with policy and technical issues in the clean-up of the Mudanjiang River watershed. Located in Heilongjiang Province, in north-eastern China, this watershed has suffered the impacts of tremendous population and industrial growth, and the Mudanjiang River is now seriously polluted by chemical plant effluents.



A Brazilian favela in Sao Paulo – one of many informal settlements on the urban outskirts, where residents live in poverty, often without clean drinking water, sanitation or other services. The University of BC and Brazil's Ministry of Cities are overseeing five pilot projects across the country to help municipalities pool their resources and collaboratively solve common social, economic and environmental issues, with funding support from CIDA and program support from other partners, including the Fraser Basin Council.



Life in the marshlands of southern Iraq has changed dramatically over the past two decades. Beginning in the early 1990s, Saddam Hussein drained the wetlands. Traditional livelihoods in fishing and agriculture were lost, and 400,000 people displaced. Local and international efforts are underway for restoration of the marshes. There are many challenges, including different interests in land tenure and use, such as oil field development. The University of Victoria, FBC and the University of Waterloo, with funding from CIDA, are working with Iraqi officials to develop a long-term plan that merges old and new economies and creates a workable collaborative governance structure.





- **Greater Vancouver Sea-to-Sky**
- **Fraser Valley**
- **Thompson**
- **Cariboo-Chilcotin**
- **Upper Fraser**

# Greater Vancouver Sea-to-Sky Region

## Supporting Dialogue in the GVSS

In 2007-2008 the Council helped set the stage for dialogue on several sustainability issues in the Greater Vancouver Sea-to-Sky (GVSS) region. A key accomplishment was assistance to Legacy North Shore, a local citizens' voice for sustainability in West Vancouver and the City and District of North Vancouver. This non-profit is striving to foster broad, informed citizen engagement in support of sustainability. They have hosted visioning sessions that enjoy wide participation and are launching "Cool North Shore," a person-to-person outreach campaign to promote a low-carbon diet among residents.

On other fronts, the region helped a BC university advance its internal discussions on a new inter-disciplinary initiative, as well as its campus sustainability planning. Support was also given to the Squamish-Lillooet Regional District (SLRD) in convening a meeting of community groups in Gold Bridge, north of Pemberton, to explore ways they might pool administrative resources, and thereby save valuable volunteer hours for other priorities.

The opportunities for dialogue in the GVSS are as great as the region itself, which extends from the eastern boundary of Metro Vancouver to the mouth of the Fraser River, and also includes the western portion of the SLRD.

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## Transportation in 2040

In the early spring of 2008, the Fraser Basin Council was asked to play a role in helping TransLink carry out consultations as it prepared a 30-year vision.

TransLink became the South Coast British Columbia Transportation Authority under new legislation in late 2007. With its new name came a different governance structure, mandate and planning requirements. TransLink now has potential to expand services beyond Metro Vancouver, from Pemberton in the north to Hope in the east, with municipal agreement.

To tackle the challenge of a 30-year vision, TransLink needed to extend the scope of its community consultations. The Fraser Basin Council was one of the organizations that assisted. For FBC, the focus was consultation in the Fraser Valley and the Sea-to-Sky corridor. FBC consulted 50 opinion leaders and other interested people through interviews and surveys on their most pressing transportation issues.

In both the Fraser Valley and the Sea-to-Sky corridor, there are great development pressures. Those surveyed acknowledged the challenges that accompany a significant growth in population – which affects options for development, protection of agricultural land, air quality and human health. All agreed that transportation will play a pivotal role in the future of their communities. One thing was clear from the consultations – a dialogue on inter-regional transportation is much needed, and should begin soon. Metro Vancouver and neighbouring regions would benefit from sharing information and lessons learned, and looking together at future options for integrated transportation planning.

The results of FBC's consultations are summarized in briefs that went before a TransLink public forum in mid-2008. All visioning documents are available on the TransLink website ([www.translink.bc.ca](http://www.translink.bc.ca)).



## Debris Trap Proves Worth

If ever there was a time to appreciate the importance of the Fraser River debris trap, it was in the spring of 2007. Freshet waters were rising quickly, and several communities of the Lower Fraser faced the threat of flood. As the Fraser swelled, this unique floating structure near Agassiz intercepted some 85,000 cubic metres of woody debris, nearly double the annual average. Each year the trap prevents debris, most of it naturally occurring, from heading into the lower reaches and Georgia Straight, where it poses a risk to human safety, navigation and foreshore structures.

The Fraser Basin Council acts as secretariat for the multi-party Fraser River Debris Trap Operating Committee. In that role, it has spent considerable time and energy seeking long-term funding commitments.

In 2007, there was a welcome breakthrough. The Province of BC committed to funding one-third of the trap's annual budget, on a five-year renewable term. The Vancouver Fraser Port Authority (now Port Metro Vancouver) agreed to pick up another third. The Operating Committee has requested a long-term federal funding commitment.

## Businesses and Non-Profits Surveyed on Sustainability

Small and medium-sized enterprises are an important engine for BC's economy, representing about 30% of the Province's GDP and 58% of all private sector jobs. In 2008 the Fraser Basin Council and VanCity Credit Union undertook a survey to determine the needs and priorities of those organizations in the Lower Mainland, Fraser Valley and Southern Vancouver Island as they adopt sustainability practices. Over 500 organizations responded, and a synopsis of the results will be posted on the FBC website.

# Fraser Valley Region



## CLASS at Cultus

Cultus Lake is a popular destination for over one million visitors each year. Given various pressures on the lake, a new initiative, the Cultus Lake Aquatic Stewardship Strategy (CLASS), is taking a closer look at the state of fish and wildlife, water temperature, nutrient loading and invasive species. Two invasives in particular plague the lake: Eurasian milfoil and northern pike minnow.

The CLASS team, chaired by FBC's Fraser Valley Regional Manager, is beginning to scope out these issues, thanks to those from the Cultus Lake Community Association, BC Ministry of Environment, Cultus Lake Park Board, Soowahlie First Nation, Fraser Valley Regional District and Fisheries and Oceans Canada. After adopting terms of reference in early 2008, CLASS conducted a literature review and collected oral histories from long-time residents of the lake who could help identify features that have changed over the decades.

## Making Connections in the Valley

FBC works hard to connect people. In 2007-2008 the Fraser Valley Region made connections in various ways — by participating in local watershed initiatives, exploring new opportunities for the Small Lot Agriculture sector, and chairing the ever-popular Celebration of Community in Mission.

The social dimension of sustainability is a critical part of the health and safety of communities, and that includes initiatives to heal and restore people.

Fraser Valley Regional Manager Marion Robinson has been honoured to serve on a small team of volunteer facilitators at one of the Valley's penal institutions. Under the guidance of Dr. Liz Elliott of the Centre for Restorative Justice at Simon Fraser University, the team offers inmates and their families an opportunity to participate in peace-making circles. For the inmates who take part, it is a step in accepting responsibility for the harm and trauma caused to others and increasing the likelihood of their successful integration into the community in the future.



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## Chilliwack River Watershed Strategy

Skwah Chief Jack Mussell (*top photo, centre*), a member of the Chilliwack River Watershed Strategy team, gives a briefing on local issues during a field tour in 2007. He was joined by FBC Chair Jago, regional directors, staff and several local leaders.

The Chilliwack River watershed is under stress from settlement and growth, resource extraction and high-impact human activities. Fisheries and Oceans Canada, the Fraser Valley Regional District (FVRD) and the Fraser Valley Regional Watersheds Coalition (FVRWC) chose the area to pilot a strategy team on these issues. The team, now chaired by the FBC Regional Manager, strives “to provide a common understanding of watershed values, based on sound science and local knowledge, to assist in decision-making that will promote and improve the sustainability of the Chilliwack River Watershed.”

Through public consultations, the team has captured a community vision for the watershed. Technical working groups have developed a series of draft “issues and alternatives” papers on such matters as recreation, mining, forestry, garbage disposal, fishing and fish and wildlife management. The papers are available at [www.chilliwackwatershedstrategy.ca](http://www.chilliwackwatershedstrategy.ca), and a final report is expected soon.

Kika Joy (*middle photo*), of Weightstone Organic Sauerkraut, shows a sample of her naturally fermented vegetables. Joy paired up with a local farmer to process end-of-season artichokes, and test the features of a small commercial kitchen in Hope, BC. The Council undertook a business feasibility study in 2007-2008, under its Strengthening Communities program, to see if small-scale food processors and local agricultural producers could benefit from a shared commercial facility.

The Fraser Basin Council Board of Directors and staff and the Mayor of Hope toured the pilot project in October, 2007 (*bottom photo*).



## Planning for Sustainability in the Thompson

FBC was hard at work in the Thompson region in 2007-2008, with regional staff delivering on partnerships and offering practical tools for sustainability. Water quality and watershed health were a focus. The priority project was Shuswap Lake.

### Shuswap Lake Integrated Planning Process

The Shuswap Lake area is experiencing rapid change, including high rates of residential and commercial development and conflicting demands for recreational opportunities.

In 2007, the Province of BC, with assistance from the Fraser Basin Council, began a collaborative, multi-agency planning process for Shuswap and Mara Lakes, called the Shuswap Lake Integrated Planning Process (SLIPP). The purpose of SLIPP is to bring all land and water use planning and governance issues relating to the lakes to a single table and to identify cross-cutting issues in the region that can be addressed collaboratively. Through technical and public advisory committees, and a public consultation process, the focus is on three issues:

- **Foreshore Development:** Development that respects environmental, economic and social interests
- **Water Quality:** Water quality that respects public and environmental health
- **Recreation:** Desirable recreational experiences that are safe and sustainable.

SLIPP is intended to complement the responsibilities and planning processes of participating government agencies – for example, regional land use plans, official community plans and liquid waste management plans that are underway. The intent is to balance social, economic and environmental interests of the life in and around Shuswap and Mara Lakes, and ensure their health to support communities for the long-term. An interim report has been released and is available on the Council's website.



Dora MacMillan

## Honouring Stewardship

Stewards are the champions of BC's watersheds, and their work benefits the community as a whole. The Council, Fisheries and Oceans Canada and the Baker Creek Enhancement Society (BCES) welcomed 60 stewards to Quesnel at the 4<sup>th</sup> Annual Interior Stewards Workshop and field tour in March, 2008, FBC also presented its BC Interior Stewardship Award for Ecosystem Excellence to Dora MacMillan, founder of BCES and the Quesnel Air Quality Roundtable, and a leader to many in stewardship circles.

At the workshop, stewards learned about the Water Smart public outreach campaign of the Cariboo-Chilcotin Conservation Council. They were also introduced to the *Green Bylaws Toolkit for Conserving Sensitive Ecosystems and Green Infrastructure*. The toolkit is a collaborative effort of the Environmental Law Clinic at the UVic Faculty of Law and Deborah Curran & Company for the Wetland Stewardship Partnership, Ducks Unlimited Canada, Grasslands Conservation Council of BC, Real Estate Association of BC, Environment Canada and the Province of BC. It offers guidance to local governments and developers on environmental safeguards, both regional and site-specific, and provides case studies and examples of bylaws in use across BC. Find the toolkit at [www.greenbylaws.ca](http://www.greenbylaws.ca).



**Thompson Regional Manager Phil Hallinan explains how climate stations record and transmit evaporation and evapotranspiration data from the field to the Farmwest.com website for review by producers in the area. Minister of Agriculture and Lands Pat Bell (back right) was part of the field tour at Halfway Ranch, led by the BC Grape-growers Association and partners in September, 2007.**

## Climate Stations for Agriculture

Water is an increasingly precious resource in the Thompson. The Fraser Basin Council was pleased to continue working with the BC Ministry of Agriculture and Lands, stock associations and regional fish and wildlife clubs in expanding the network of Farmwest climate stations and helping local agricultural producers interpret the data. Five new stations were installed over 2007-2008, including ones in Lillooet, Cherryville and Alkali Lake.

Climate stations measure evapotranspiration of field crops—the amount of water that is evaporated from the soil and crop surface (evaporation) and the water that is taken in by the plants and released as water vapour (evapotranspiration). By providing climate data and soil readings, the stations can help guide decisions on irrigation and fertilization schedules.

## Updated Mapping Tool

The Kamloops South Thompson Sustainable Community Atlas is a web-based mapping tool offering cultural, socio-economic, ecological and land use information to support decision-making in the region. It was updated in 2007-2008 to improve accessibility. The atlas is a partnership effort of multiple organizations, with funding from the City of Kamloops and the Fraser Basin Council's Strengthening Communities program and is available at [www.kamloopsatlas.com](http://www.kamloopsatlas.com).

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# Cariboo-Chilcotin Region

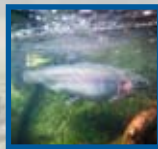
## Bringing People Together in the Cariboo-Chilcotin

2007-2008 was a busy year for the staff of the Cariboo-Chilcotin region, whose work at bringing people together to advance sustainability included innovative dialogues, learning events and support for local economies and ecosystems.



### BC Rural Network

The BC Rural Network helps link up communities, organizations and policymakers across BC on issues of importance to rural communities. FBC provides funding and secretariat services for the Network, which offers various communications tools and hosts regular dialogues as well as the Rural Communities Summit, a popular biennial event held in communities across the province. In 2008, the summit was held in 100 Mile House, in partnership with the Cariboo Regional District and Rural Team BC, attracting close to 150 participants. The Network is also a partner in the BC LIRN program that hosts educational events in rural, remote and northern BC communities.



### Ministry of Environment / First Nations Dialogue

Discussions took place during the year between the Province of BC and several local First Nations in the Cariboo, with a view to securing a protocol on fish and wildlife management. The Council was pleased to facilitate this joint process and to see a successful outcome — an example of how respectful approaches and shared decision-making can work to mutual benefit.



### Aboriginal Forestry Information Directory

The Council's online Aboriginal Forestry Information Directory ([www.aboriginalforestinfo.ca](http://www.aboriginalforestinfo.ca)) is poised for expansion. Launched in 2005 under the FBC Strengthening Communities program, the directory links up forestry companies and Aboriginal contractors. A plan is now in place to promote the directory and expand it to include all natural resource sectors.

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Williams Lake residents take pointers on invasive plant identification during a presentation hosted by the Cariboo-Chilcotin Coast Invasive Plant Committee in June, 2007. Committee coordinator and FBC Associate Regional Manager Mike Simpson explained how invasives will aggressively colonize an area, to the detriment of crops, rangeland and ecosystems.

## Helping Communities & Youth Tackle Invasive Plants

Innocent posies they are not. Invasive plants, such as orange hawkweed, knapweed and oxeye daisy, may come in pretty packages, but their irrepressible ways cost the provincial economy a pretty penny too – estimated at over \$50 million a year.

The Fraser Basin Council was instrumental in developing an Invasive Plant Strategy for BC in 2002, and later the Invasive Plant Council of BC (IPC). FBC continues as secretariat for the IPC, which focuses on education and research. In 2007-2008, the IPC launched a best management practices guide for forestry professionals, the first publication in a series aimed at stopping the spread of invasive plants. Other IPC outreach during the year included a publication directed at best management practices in horticulture, an educational forum, a paper on the current state of invasive plants in BC, and a legislative guidebook detailing the legislation, regulations and policies that set out BC's current framework for invasive plant management and the agencies involved. The intent is to help clarify responsibilities and to encourage voluntary compliance.

A related project of the Cariboo-Chilcotin region, funded by the FBC Strengthening Communities Fund, was *Nab the Bully Plant*, a resource package for teachers and leaders of youth clubs (4H Clubs, Cubs, Girl Guides and others) in teaching young people about invasive plants in BC and their impacts.

## Cariboo Water and Watersheds

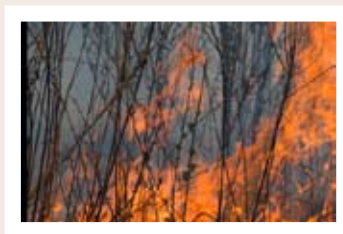
The FBC Cariboo-Chilcotin Region facilitated formation of the Horsefly River Roundtable, which is creating a Watershed-Based Fish Sustainability Plan to help secure the future health of the watershed. The Fraser Salmon and Watersheds Program, which FBC jointly manages with the Pacific Salmon Foundation, will contribute project funding.

Also on the water front, FBC facilitated a public meeting for those concerned about water levels in the 108 Lake system. For many, this was their first look at water management, natural processes and other issues affecting lake levels, the impact on water supply to the area and what steps can be taken.



### Williams Lake “Measuring Up”

The City of Williams Lake is exploring ways of becoming more accessible for residents with physical and mental challenges under the “Measuring Up the North” program. FBC helped the City expand its Accessibility Committee and host a public consultation to determine accessibility priorities.



### Interface Fire Planning

Since the Kelowna firestorms in 2003, BC communities are increasing preventive measures in interface zones, areas where residential outskirts touch grassland and forest. FBC provides facilitation and support services to the multi-party Williams Lake and Area Interface Fire Secretariat. Progress on interface fire planning in Williams Lake and other Cariboo communities is a credit to the hard work of local governments, First Nations, the forest industry, fire experts and the public.



### Heritage Site Forum & Aboriginal Business Forum

The Cariboo regional office hosted “Business Strategies for Heritage Sites,” a two-day forum held in Quesnel in 2008, helping BC heritage organizations explore innovative ways to maximize revenues from their sites. The Aboriginal Business Forum explored economic opportunities in forestry, agriculture and tourism, showcasing Aboriginal success stories in each sector.

# Upper Fraser Region

## Working for Well-being of the Upper Fraser

Several initiatives were underway during the year to boost community well-being in the Upper Fraser Region. These included participation in air quality initiatives, sturgeon recovery and post-flood restoration. The Regional Manager also led a series of meetings that took place across BC to introduce communities to a new integrated community sustainability planning initiative, now known as “Smart Planning for Communities” (see pp. 10-11).

### Nechako Watershed Council

The Fraser Basin Council has been active in the Nechako Watershed Council (NWC) since initiating its formation in 1998. The NWC is a multi-interest group with representation from Rio Tinto Alcan, Aboriginal groups, government and the communities of the Upper Fraser region.

The NWC supports the development of a cold water release facility at the Kenney Dam on the Nechako River. This is seen as the primary means of managing water flow to meet a wide range of interests — such as migratory and resident fish (including the endangered white sturgeon), tourism, recreation, agriculture, and the redevelopment of the Murray-Cheslatta drainage.

In 2007-2008, NWC reviewed a summary of studies from the Nechako Enhancement Society on flow regimes, sedimentation from reintroduced flow in the Cheslatta fan, volume and depth of cold water and temperatures on the Nechako. In March, 2008, the Province and Rio Tinto Alcan each confirmed \$100,000 funding for the next phase of the technical work-up. During the year, the NWC began seeking clear commitments for funding the facility, which could cost as much as \$100 million, once preparatory studies are complete.

### Restoration at Naver Creek

Since 2006, the Fraser Basin Council has assisted the Regional District of Fraser-Fort George in the recovery of Naver Creek near Hixon from damage caused by ice jam flooding in 2005. Restoration work has been carried out at seven sites, thanks to the Regional District and contributions by local volunteers from the community of Hixon.

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FBC supports initiatives in Prince George for better air quality. Through its Fraser Regional Manager, FBC has participated on:

- **Prince George Air Quality Implementation Committee:** This multi-interest committee oversees implementation of the first and second phases of the Prince George Air Quality Management Plan. The plan places particular emphasis on achieving acceptable levels of fine particulate matter  $PM_{10}$ .

Since another critical pollutant ( $PM_{2.5}$ ) remains high in downtown Prince George, the committee is overseeing another phase of the work. It includes a research study to identify the major sources. A report on the issue was released in February 2008, concluding that  $PM_{2.5}$  came primarily from pulp mill, wood burning and transportation-related emissions.

Another study is underway to create a detailed  $PM_{2.5}$  emissions inventory and dispersion modelling that will help guide the next phase of the work, which will set priorities for reduction of this pollutant.

- **Mayor's Task Force on Air Quality Improvement.** This task force took a strategic approach to air quality standards, best practices, and inter-jurisdictional management. Its final report was issued in January 2008, focusing on industrial emissions, land use, development, air quality monitoring, public outreach, regulatory tools and research management. The report and recommendations are available in the resource links of PG Air and on the City of Prince George website.



## Nechako White Sturgeon: On the Brink

White sturgeon is North America's largest and longest-living freshwater fish, with some sturgeon reaching six metres, 800 kilograms and 100 years of age. It is not merely an old fish, but one of the oldest. Ancient sturgeon swam the murky depths at the same time dinosaurs walked the earth. The fear today, particularly for the Nechako white sturgeon, a genetically distinct population, is that this legacy may be lost in just decades. Only 300 to 500 wild Nechako sturgeon remain, and very few juveniles have survived into adulthood since the late 1960s.

The white sturgeon is designated as critically imperilled by the British Columbia Conservation Data Centre and as endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). In 2006, four populations (Upper Fraser, Nechako, Kootenay and Columbia) were listed under Schedule 1 of the *Species at Risk Act* (SARA), indicating their endangered status.

A 2007 report from Fisheries and Oceans Canada paints a dark picture. It states that, for the four SARA-listed populations of sturgeon, including that of the Nechako, extinction in the wild is inevitable unless human intervention can restore natural recruitment. Habitat appears to be at the heart of the problem. A 2007 study showed that, in the years following construction of the Kenney Dam, there were two streambank failures resulting from high water flows, and these dumped fine sediment into the Nechako via Cheslatta Falls in 1961 and 1972. The sturgeon went into rapid decline. Underwater sand waves buried existing gravel bars in spawning and rearing areas. Without gravel, another recent study shows, baby sturgeon tend to drift and are more vulnerable to predation.

There are other concerns as well, such as development of riparian, foreshore and floodplain areas and impacts of treated effluent discharge.

The key question now is how to bring sturgeon back from the brink. The Nechako White Sturgeon Recovery Initiative (NWSRI) is taking a two-pronged approach that combines: 1) conservation aquaculture and release of young sturgeon and 2) investigation and restoration of habitat to support their survival and wild breeding. The Fraser Basin Council has supported the efforts of the NWSRI through participation of Regional Manager Joan Chess on the public advisory committee. For more on NWSRI work, which earned a Premier's Silver Medal in early 2008, visit [www.nechakowhitesturgeon.org](http://www.nechakowhitesturgeon.org).

# Fraser Basin Council Staff

As of March 31, 2008

In 2007-2008 the Council was served by 26 full-time and three part-time staff working out of five offices: the Basin-wide / Greater Vancouver Sea to Sky (BW / GVSS), Fraser Valley (FV), Thompson (Th), Cariboo-Chilcotin (CC) and Upper Fraser (UF) offices.

For office contact information and current staff listings, see back cover and visit us at [www.fraserbasin.bc.ca](http://www.fraserbasin.bc.ca)

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**Gail Wallin**

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## Looking Back ...The Fraser Basin Council, 1997

Members of the Fraser Basin Management Program (predecessor to the Fraser Basin Council) gather with federal, provincial and local representatives on the New Westminster waterfront in 1997 to celebrate the launch of the Fraser Basin Council as a non-profit society. At the centre of the celebration was the newly signed Charter for Sustainability, a good-faith agreement among multiple parties to advance social, economic and environmental sustainability in the Fraser Basin.

## About this Report

The 2007-2008 Annual Highlights Report was printed in Canada on 100% post-consumer, process chlorine-free recycled paper.

The Report is available online at [www.fraserbasin.bc.ca](http://www.fraserbasin.bc.ca).

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### **Fraser Valley Regional Office**

PO Box 3006  
Mission, BC V2V 4J3

Regional Manager: Marion Robinson  
T: (604) 826-1661  
F (604) 826-6848  
mrobinson@fraserbasin.bc.ca

### **Thompson Regional Office**

#200 – 1383 McGill Road  
Kamloops, BC V2C 6K7

Regional Manager: Phil Hallinan  
T (250) 314-9660  
F (250) 828-2597  
phallinan@fraserbasin.bc.ca



*Fraser Basin Council*

[www.fraserbasin.bc.ca](http://www.fraserbasin.bc.ca)

### **Cariboo-Chilcotin Regional Office**

104 – 197 Second Avenue North  
Williams Lake, BC V2G 1Z5

Regional Manager: Mike Simpson  
T (250) 392-1400  
F (250) 305-1004  
msimpson@fraserbasin.bc.ca

### **Upper Fraser Regional Office**

207–155 George Street  
Prince George, BC V2L 1P8

Associate Regional Manager: Jillian Merrick  
T (250) 612-0252  
F (250) 564-6514  
jmerrick@fraserbasin.bc.ca