





ANNUAL HIGHLIGHTS 2016-2017

Sustainability 20/20

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Cover image: Fall colours

Cover insets (from bottom left, clockwise): Youth field tour to Cheam First Nation | Emotive EV event @ ElectraFest in Vancouver | Youth showing the way at Bike to Work Day, Prince George

Fraser Basin Council

Who We Are

About the Fraser Basin Council

Established in 1997, the Fraser Basin Council (FBC) is a charitable, non-profit society that advances sustainability in the Fraser River Basin and throughout British Columbia.

Board of Directors

FBC is led by 38 Directors who represent the four orders of government (Federal, Provincial, Local and First Nations), the private sector and civil society. Directors make decisions by consensus. This broad-based, collaborative governance structure is one of the first of its kind in British Columbia.

Staff

Our multi-disciplinary staff work in the five regions of the Fraser Basin and serve communities province-wide.

Office Locations

FBC staff work from locations in the Greater Vancouver–Sea to Sky region (Vancouver), Thompson region (Kamloops), Cariboo-Chilcotin region (Williams Lake and Quesnel), Upper Fraser region (Prince George), Fraser Valley region (Abbotsford) and Okanagan (Vernon).

What Inspires Us

Our Vision

Social well-being, supported by a vibrant economy and sustained by a healthy environment

What We Do

Our Mandate

To advance sustainability in British Columbia, with a core focus on the Fraser River Basin

The Work

FBC brings people together to find collaborative solutions to today's sustainability challenges, with a focus on climate change and air quality, watersheds and water resources, and the sustainability of communities and regions.

Priority Roles

FBC's two main roles are as a sustainability educator and facilitator. Our other services include program management and administration, monitoring and reporting, conflict resolution and applied research and analysis.



A look back to the early days of the Fraser Basin Council. "It is an inspiration to be part of such a creative and constantly evolving endeavour." - Iona Campagnolo, Founding Chair

REFLECTIONS FROM THE CHAIR

FBC: 20 years ago / 20 years from now



The Fraser Basin Council is celebrating its 20th anniversary in 2017. Chairing the Council at this important milestone is a privilege. This report sums up activities of the past year, but it's also a good space to pause and reflect on where we've been and where we're headed.

Back in 1997, founding Chair Iona Campagnolo was preparing to lead the new Fraser Basin Council as successor to the Fraser Basin Management Program. Early on, she described the sustaining force behind the organization. "We hold in common a commitment that is increasingly vital to seeking sustainability of our precious Fraser Basin," she said. "It is an inspiration to be part of such a creative and constantly evolving endeavour."

The Fraser Basin Council did evolve over the next 20 years, upholding the sustainability goal and embracing new challenges. This is a credit to lona's leadership, the work of successive Chairs Jack Blaney, Patrick Reid and Charles Jago who supported innovation, and the bold approach of our Executive Director David Marshall. FBC gained a reputation as a respected voice on sustainability, as a facilitator and educator and in other roles, working on over 50 milestone initiatives and hundreds of smaller projects in the Basin and throughout BC.

We have partnered on integrated flood hazard management, climate change adaptation, an invasive plant strategy for BC, energy efficiency and environmental performance of fleets, watershed education and planning, stewardship education, community energy efficiency, community sustainability planning, economic development projects, fish and fisheries initiatives, air quality improvement programs and support for electric vehicle education and EV charging infrastructure in BC.

Few of us would claim 20/20 vision when it comes to the future – or claim 20/20 hindsight, for that matter. Yet if I were to distill FBC's success formula, it would come down to good structure, good process and good people.

We have a structure founded on collaborative leadership, with broad representation from federal, provincial, local and First Nations governments as well as the private and non-governmental sectors. All come to the table with different areas of responsibility and interests, and also come ready to find common

ground and sustainability solutions.

FBC's 1997 Charter for Sustainability emphasizes the importance of mutual dependence, accountability, equity, integration, adaptive approaches, coordinated efforts, open and informed decision-making, cautionary approaches, the need to manage uncertainty and the importance of recognizing Aboriginal Title and Rights. The Charter also teaches patience since transition to sustainability can take time.

The architects of the Charter understood that sustainability isn't about a rigid set of rules, but rather a framework that allows for flexibility as situations change. Back in 1997, for example, climate change was not part of our lexicon. Today it is a central focus. As reflected in our 2016-2021 strategic priorities, FBC will:

- Advance sustainability in the Fraser Basin and throughout BC
- Serve in our primary roles as facilitator and educator for sustainability
- Focus efforts in three key areas:
 - climate change and air quality
 - healthy watersheds and water resources
 - sustainable communities and regions.

We have enjoyed the service of many talented Directors and a strong staff team over the years. I am proud of what our people have accomplished – and will accomplish.

The sustainability challenges of 2037 are not yet clear, yet our eyes lift to that horizon. With a continued commitment to good structure, process and people, I expect FBC will be there, stronger than ever.



Colin Hansen Chair, Fraser Basin Council

Climate Change & Air Quality

FBC helps leaders in all sectors in British Columbia take action on climate change. A key part of our work is supporting people in taking steps to curtail the harmful emissions that drive climate change and steps to adapt to the climate change impacts that are now unavoidable.

HERE IS A LOOK AT EBC'S WORK IN 2016-2017



FBC is proud to support the shift towards cleaner transportation by managing Plug In BC. Plug in BC is a broad collaboration between government, industry, academic institutions, electric vehicle owners, non-governmental organizations and utilities. The program lays the groundwork for plug-in electric vehicles and related charging infrastructure in the province.

Electric vehicles are a good option for drivers who want to cut greenhouse gases and other harmful emissions — particularly in BC where nearly 98% of electricity is clean energy.

In 2016-2017, the Fraser Basin Council helped with new infrastructure initiatives:

Designed and managed a new provincial Multi-Unit Residential Building (MURB)
 Charging Program, providing rebates of \$4,500 each on the purchase and installation of electric vehicle charging stations in multi-unit residential buildings – such as apartment buildings and strata complexes. By year-end, 55 of the approved stations were installed, and 90 more installations are expected during 2017. The BC Ministry of Energy, Mines and Petroleum Resources provided financial support for the MURB charging program.

New programs introduced in 2016-2017 made it easier for people to install charging stations in apartment buildings and strata complexes, and for businesses to introduce and expand EV use in fleets



- Offered guidance on the development of www.evcondo.ca, a Metro Vancouver website designed to offer resources and support to install charging stations in condos and apartment buildings
- Attracted over 3,700 visits per month on the www.pluginbc.ca website where drivers can access EV news, tools and resources
- Implemented the provincially funded Fleet Champions Program, providing services and resources to BC-based fleets to support EV uptake
- Supported the successful Emotive campaign.



Julia Bronson and Charlotte Argue of FBC welcome people to test drive an EV at the 2017 BC Tech Summit. Emotive hosted over 1,500 test drives at Ride and Drive events across BC in 2016-2017.

TEST DRIVE

Emotive: The Electric Vehicle Experience — One way

BC drivers are learning about the benefits of electric vehicles is through Emotive - The Electric Vehicle Experience. This public awareness campaign brings EV news and videos to over 2,200+ followers via social media and puts people behind the wheel at ride and drive events.

FBC works on Emotive in partnership with Metro Vancouver and the BC Ministry of Energy, Mines and Petroleum Resources.

Thanks to the active support of communities, 59 EV events rolled out in 2016-2017, with an estimated 3,000 participants in communities around BC - including Kamloops, Powell River, Salmon Arm, Chilliwack and Mission. FBC supported these under the Emotive banner and offered close to 1,500 test drives at EV ride and drive events, including at the Vancouver International Auto Show, ElectraFest and BC Tech Summit Drive.



Visit Emotive on YouTube to follow the story of curious caveman Homo Gasolinus as he experiences the next EVolution of transportation

West Coast Electric Fleets & Fleet Champions Program

- With public visibility and buying power, businesses and local governments are perfectly positioned to help drive the EV market. By bringing EVs into their fleets, fleet managers have an opportunity to reduce fuel and maintenance costs and to demonstrate the environmental commitments of their organizations.

FBC leads efforts to encourage BC fleets, big and small, to make the West Coast Electric Fleets (WCEF) Pledge. The pledge supports the Pacific Climate Collaborative (a joint initiative of BC, Washington, Oregon and California) towards expanding the use of electric vehicle in fleets.

By making a WCEF pledge to consider the purchase of zeroemissions vehicles (or to expand their use in a fleet of any size), BC companies, communities and organizations became eligible for two EV incentives funded by the BC Ministry of Energy, Mines and Petroleum Resources:

- 1. a tailored fleet business case assessment on use of electric vehicles (EVs) in their operations, and
- 2. a site assessment and 33% rebate (up to \$2,000) on the purchase and installation of an EV charging station.

BC businesses have turned to WCEF for tools and resources, (www.westcoastelectricfleets.com), including new fleet case studies and a webinar series for lessons learned and best practices.

FBC oversees these fleet initiatives. In 2016-2017, 40 fleets signed up. Of these, 17 requested assessments on the suitability of EVs in their fleet operations, and 29 took up incentives to install charging stations.



FBC Chair Colin Hansen presents Richmond Mayor Malcolm Brodie with the first-ever E3 Fleet Platinum Award.

E3 Fleet: New Milestones — In 2016 E3 Fleet celebrated its 10th anniversary as Canada's first and only green performance rating program for fleets. An important milestone, and it wasn't the only one for E3 Fleet.

In November the City of Richmond became the first municipality to receive the highest (Platinum) rating from E3 Fleet for excellence in fleet management and environmental performance.

The Award recognizes Richmond's work in adopting a green fleet plan, implementing better data tracking and analysis, right-sizing its fleet with more efficient vehicles, and other steps to improve environmental performance.

As E3 Fleet entered its second decade, FBC concluded it was time to transfer the program to Richmond Sustainability Initiatives (RSI), based in Ontario. RSI has previously worked on E3 Fleet assessments for the Fraser Basin Council and is well positioned to expand the program nationally.

Saving Energy in First Nations Communities — The Fraser Basin Council is working with BC First Nations communities, agencies and utilities to help improve the quality of community buildings and homes, reduce energy use, share success stories and build local capacity.

One program is devoted to implementation of clean energy in remote communities. FBC has helped communities access funding for several renewable energy construction projects: at Xeni Gwet'in First Nation (southwestern Chilcotin), Kwadacha Nation (Northeastern BC) and Da'naxda'xw First Nation (Northern Vancouver Island). After several year of planning, these communities are now less reliant on diesel and beginning to enjoy the benefits of low-carbon power.

These remote communities energy projects were funded by the BC Ministry of Energy, Mines and Petroleum Resources.

Another innovation is the First Nations Home EnergySave program, focused on community capacity building and support. Through a "one-on-one" support initiative, Lytton First Nation, Lower Nicola Indian Band and Gwa'sala-'Nakwaxda'xw Nations ran community workshops and participated in peer mentoring trips. Customized residential retrofits were possible through the Energy Efficiency Retrofit Pilot, which committed funding to the communities of the Kanaka Bar Band (Fraser Canyon), Kitasoo First Nation (BC Central Coast) and Wuikinuxv Nation (BC Central Coast).



As communities take on new energy efficiency projects, the Home EnergySave program is fostering connections between communities to share expertise and provide mutual support.

In 2016-2017 FBC organized free webinars, including those featuring lessons learned:

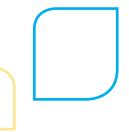
- How Yale First Nation tackled the community's high residential heating bills through an investment in new rental housing built to energy-efficient Passive House standards
- How Skeetchestn First Nation took the ancient Kekuli concept of the traditional-style round house and redesigned it as an energy-efficient and near-net zero energy building – as an alternative to a conventional on-reserve home
- How Osoyoos Indian Band and FortisBC worked together on home energy efficiency assessments and upgrades to low and fixed-income housing – and how they achieved a high rate of community participation.



Mike Anderson of Skeetchestn First Nation led a presentation for an FBC webinar in December 2016 to illustrate how a traditional-style round house has recently been redesigned as an innovative alternative to a conventional on-reserve home – and one that offers superior energy savings.

"Very interesting to see a First Nation reviving traditions to come up with their own solutions."

Dale Komanchuk, Tsleil-Waututh Nation, webinar participant





Kwadacha Nation is now generating a portion of its electricity from a new biomass plant, which also heats the community school and greenhouses. This was one of several renewable energy projects underway in BC's remote communities during the year.

Climate Adaptation in a Changing BC — FBC

helps communities assess and adapt to climate change impacts, such as by planning for more severe weather events, sea level rise, flooding, wildfire and water shortages.

With financial support from Natural Resources Canada and the BC Ministry of Environment, our work during the year included:

- Facilitation of a BC Climate Risk knowledge-sharing network, bringing together key government agencies, professional associations and non-profit organizations
- A webinar series to support climate adaptation learning for local government, consultants and professionals in multiple fields
- Climate adaptation workshops in Prince George and Fort St. John
- Updates to the www.retooling.ca portal as a "one stop" website for adaptation resources and
- Communications outreach through the ReTooling newsletters.

FBC's learning events covered practical topics, such as winter road maintenance under climate change, issues in regional flood management, drought response, and an introduction to online adaptation tools. Find the webinar videos on FBC's YouTube channel.





FBC hosts a climate adaptation workshop in Prince George



Vancouver staff go cycling in memory of friend and colleague Elizabeth Henry, a member of our Climate Change & Air Quality staff team, who passed away in 2014. Elizabeth's legacy is reflected in the sustainability work of the many people she inspired and in the scholarship fund created in her honour.

Scholarship Support for Research

Three inaugural \$2,000 awards were made in 2016 by the selection committee for the Elizabeth Henry Scholarship Fund for Communities and Environmental Health.







Congratulations to Andrea Lyall, Matthew Wagstaff and Michelle Walsh (pictured left to right above.)

Our thanks to all who contributed so generously to the Fund, including Elizabeth's friends, family and colleagues and FBC Directors and staff. Thanks also to the BC Clean Air Research Fund for a contribution that made three awards possible in the first year.

Donations to the Elizabeth Henry Scholarship Fund can be made through the Vancouver Foundation.

FortisBC Energy Efficiency & Conservation — FBC helps organizations with internal and external sustainability goals. Over the year FBC facilitated the FortisBC Conservation & Energy Management Program to advance efficiency and conservation measures for residential, commercial, industrial and low-income customers in BC. FBC also assisted with program design of workshops for different customer groups.



PGAIR works for air quality improvement in Prince George.
Levels of fine particulate matter (PM_{2.5}) in the city have improved over the past 15 years due to management actions—such as emissions curtailment and dust suppression—but more work is needed. Hot weather and more active wildfire seasons in the BC Interior are having adverse impacts.



Bike to Work Day in Prince George — one way the community shows support for clean air



Air Improvement Roundtables — The Prince George Air Improvement Roundtable (PGAIR) is a multi-stakeholder, community-based, non-profit society that brings together Prince George area representatives from business, industry, community groups, government, UNBC and Northern Health, as well as members of the general public.

PGAIR's focus is on education and outreach, research, recommendations and implementation of air quality improvements in the Prince George airshed.

With support from FBC's Upper Fraser team, PGAIR is now recognized as an information hub on air quality in the region. PGAIR works on strategies to reduce pollutants, including fine particulate matter, which can impact respiratory and cardiovascular health. The roundtable publishes regular updates at **www.pgairquality.com** from industrial, commercial and government sectors, and community groups and individuals.

A provincial overview of pollutant trends (1998 through 2014) showed improvements in air quality in Prince George, but there is still work to be done. Levels of fine particulate matter (PM_{2.5}) improved over that 15-year period due to management actions, but air quality has also been adversely impacted by hot weather and increasingly active wildfire seasons. Odour levels in the community (indicated by total reduced sulphur -TRS) have improved greatly since the 1960s, yet have shown a slight increase in recent years. These odours are offensive to residents and may impact community image.

PGAIR also manages the provincial woodstove exchange program for the region, offering residents in the City of Prince George and the RDFFG \$500 rebates to replace their old wood-burning stoves with newer natural gas, wood burning or pellet-burning appliances. Over the past nine years, residents have changed out 340 old stoves, removing an estimated annual 28 tonnes of particulate matter emissions from the airshed.

The Prince George Ambient Air Monitoring Network is a collaborative project of the provincial government, permitted industrial emitters, and the community (local governments and civil society). By pooling resources, government and industry are able to maintain the air quality monitoring network at a cost that is significantly less than it would be if each organization individually paid for ambient air quality monitoring. FBC administers the network, which includes five air quality monitors in four locations. The program provides data for provincial air quality advisories and emission reduction strategies, and makes real-time air quality data available to the public: www.bcairquality.ca.

Modelled on PGAIR, the **Kamloops Air Quality Roundtable** was launched in 2015 as a new multi-party collaborative initiative to serve Kamloops and area, with facilitation support by FBC. Over the year, the Roundtable worked to educate the community on air quality issues and bring together technical people from provincial, local and First Nations governments, industry, academic institutions health authorities and interest groups. See **www.kamloopsairquality.ca**

TAKING STEPS FOR SUSTAINABLE

Watersheds & Water Resources

BC's public and private sector leaders must manage BC's watersheds and water resources sustainably if clean freshwater resources are to be available to meet the needs of future generations. For FBC, this is a strategic priority, reflected in a number of our regional initiatives.



HERE IS A LOOK AT FBC'S WORK IN 2016-2017

Shuswap Watershed Council — The Shuswap Watershed Council (SWC) — for which FBC is program manager — supports water quality monitoring, water quality protection and safe recreation in the Shuswap.

In 2016-2017 the SWC reconvened and expanded the Shuswap Water Quality Monitoring Group – a legacy of the Shuswap Lake Integrated Planning Process – to ensure collaborative, comprehensive water quality monitoring by the 17 groups doing this work across the watershed. SWC publishes annual reports on the results at www.shuswapwater.ca.

SWC completed the first year of a three-year research partnership with UBC-Okanagan to identify the sources of nutrients in the Shuswap and Salmon Rivers. The project is collecting water samples from 20 sites to measure phosphorus and nitrogen levels and is also testing groundwater samples. SWC also funded projects on nutrient management education and water quality restoration.

Recreational safety is another priority of the Shuswap Watershed Council. SWC partnered with the Royal Canadian Marine Search and Rescue (Station 106 Shuswap) on a public education program on safe boating. SWC funded lifejacket loaner stations and water safety whistles for boaters and paddlers and worked on water safety campaigns.

Nicola Basin Collaborative — Land and water management in the Nicola Basin are an ongoing challenge. The Fraser Basin Council worked collaboratively with all orders of government, industry and private landowners during the year to identify, prioritize and address issues in the Nicola Basin. For details, visit www.nicolaplan.ca.

Highlights of 2016-2017 include:

- Completion of the web-based Nicola Water Management
 Tool (NWMT) for the Nicola Lake dam. The NWMT will allow
 operators at the Nicola Lake Dam to consider a wider range
 of biophysical, ecological and socio-economic factors helpful
 for dam operations, including the in-lake and downstream
 consequences of water releases in terms of predicted flows
 at key index locations. The project, including user training, is
 expected to complete by March 2018.
- Mapping of critical summer thermal refuge habitat on the Nicola and Coldwater Rivers for Chinook salmon, Coho salmon, Steelhead and Bull trout. This project, which supports watershed planning, will continue as a Thompson Rivers University Master's thesis.
- Sensitive Habitat Inventory & Mapping and an Aquatic Health Index for the Lower Nicola River.
- A plan to help help guide future projects in the Nicola River Basin.

Nechako Watershed Roundtable

The Nechako Watershed Roundtable (NWR) rolled out version 1 of a watershed strategy in October 2016, after a year of research, engagement and input at public meetings in Prince George, Vanderhoof, Fort St. James, Fraser Lake, Burns Lake and First Nations communities in the region. The NWR's mission is to help protect and improve the health of the Nechako watershed for current and future generations.

The Strategy identifies priority issues and concerns for the Nechako watershed, as shown in the research, discussed within the Roundtable or raised at community meetings. Key issues include impacts of the mountain pine beetle epidemic, salvage logging, climate change, and diversion of water out of the watershed.

The Roundtable has flagged the restorative work already underway by different organizations and recommends further actions to improve watershed health.

The Roundtable includes representation from BC First Nations, the Province of BC, local governments and other agencies and organizations having responsibilities and interests in the watershed. FBC serves as facilitator.

A summary and full report on the Nechako Watershed Strategy are available: www.nechakowatershedroundtable.ca.

Photo Right: The Nechako Watershed Roundtable introduces a watershed strategy to the community at an open house session at UNBC in Prince George

Photo below: Theresa Fresco (left) of FBC's Upper Fraser office speaks with CKPG News about the work of the Nechako Watershed Roundtable







Professionals from multiple disciplines learn about Salmon-Safe assessment of urban sites during a February workshop in Vancouver



The Pacific Salmon Foundation and Fraser Basin Council teamed up in 2011 to deliver Salmon-Safe BC — an ecocertification program that recognizes environmentally friendly land management practices to protect Pacific salmon habitat and water quality.

FBC leads Salmon-Safe for Communities, which is the urban certification program, and the Pacific Salmon Foundation leads the agricultural program.

In June 2016 the Vancouver International Airport (YVR) became the first airport in North America to earn Salmon-Safe certification.

YVR met three site-wide pre-conditions and committed to 10 conditions under the Salmon-Safe infrastructure-industrial standard.

YVR is the first airport in North America to achieve Salmon-Safe certification



The Vancouver International Airport (YVR) is the first airport in North America to earn the Salmon-Safe designation

In particular, YVR has made commitments to:

- protect water quality and aquatic life from harmful pesticides
- implement a comprehensive stormwater management plan
- reduce site-wide water consumption and
- ensure zero sediment runoff during future construction activities.

The airport will also assess salmon habitat restoration opportunities near the airport and complete additional restorations.

It has been a priority for FBC to develop Salmon-Safe urban assessment teams within BC. In February FBC organized three days of training on conducting assessments and implementing the urban standards, thanks to support from the Salmon-Safe team in the US Pacific Northwest.

This is timely. In October 2016 the City of Portland announced that all land and water managed by the City had been certified as Salmon-Safe. Portland's mayor celebrated the moment by challenging other west coast cities – including Vancouver and Seattle – to match Portland's work. All leading to the question: What will be BC's first Salmon-Safe city?

Green Infrastructure

A 2016 FBC report showcases green stormwater infrastructure in urban streetscapes, residential communities and institutional sites in Metro Vancouver and Victoria. Bioswales, rain gardens, green roofs, pervious paving, infiltration trenches and other features help capture and filter rainwater on site to reduce and slow the flow of rainfall into traditional stormwater systems that often discharge directly to watercourses, such as streams and estuaries. The report is online — take a look to see how innovations on urban sites are helping protect water quality, streambanks and fish habitat.



Cultus Lake Aquatic Stewardship Strategy

CLASS is a network of agencies and organizations in the Fraser Valley that collectively identify issues and support projects to protect the health of Cultus Lake and the surrounding watershed.

In recent years, CLASS has helped drive forward research and data sharing on eutrophication in the lake and has identified steps for mitigation, such as a comprehensive liquid waste management plan.

Thompson Steelhead are in steep decline, and action is needed

Saving Thompson Steelhead

Thompson River Steelhead are in steep decline, and action is needed. In 2016 a multi-governmental Thompson Steelhead Working Group, with facilitation support from FBC, released a draft Thompson Steelhead Recovery and Management Plan for public comment through an online survey and for discussion across multiple sectors.

In December over 80 people from First Nations, provincial, federal and local governments, sport fishing organizations, the commercial fishing sector, small business interests in Spence's Bridge, and the agriculture, mining and forestry sectors participated in a one-day meeting to discuss the declining populations of Thompson Steelhead, share perspectives and look at opportunities for improvement under the proposed plan.

Learn more: www.thompsonsteelhead.ca.



Participants in the 2016 Thompson Steelhead Assembly discuss recovery and management options for failing Steelhead populations



WORKING WITH YOU TO BUILD Sustainable Communities & Regions

The Fraser Basin Council supports initiatives large and small, in the Basin and throughout BC, to enhance the liveability and sustainability of communities.





The Lower Mainland Flood Management Strategy received a 2017 Silver Award for Excellence in Research and New Directions in Planning from the Planning Institute of BC. The presentation was made in Prince George, with Theresa Fresco accepting on behalf of the Fraser Basin Council, which is the LMFMS program manager. Graham Farstad accepted on behalf of the consulting team (Northwest Hydraulic Consultants and Arlington Group) that undertook technical work in Phase 1.

HERE IS A LOOK AT FBC'S WORK IN 2016-2017

Lower Mainland Flood Management Strategy — The Lower Mainland Flood Management Strategy (LMFMS) initiative is aimed at better protecting communities along the lower Fraser River and south coast — from Hope to the Salish Sea and from Squamish to White Rock – from river and coastal flood hazards. Participants in the LMFMS have responsibilities or interests related to flood management and include the Government of Canada, the Province of British Columbia, Lower Mainland local governments, First Nations and several other public, private and non-governmental entities in the region, including the transportation sector.

The Phase 1 analysis (2016) showed there is significant risk of a large-magnitude flood in the Lower Mainland. The risk is projected to worsen over the next 85 years, both in terms of flood frequency and size, because of sea level rise and other projected impacts of climate change. If a major Fraser River or coastal flood were to occur between now and 2100, it would trigger losses estimated at \$20 to 30 billion, which would be the largest natural disaster in Canadian history — up to five times larger than the 2013 Alberta floods.

A regional strategy and a major investment in flood mitigation is critically important. The costs of a major flood event would far outweigh the costs associated with effective flood mitigation.

The first steps in Phase 2 of the strategy development were focused on:

- Securing multi-level government funding for strategy development (the Province of BC made an initial commitment of \$1 million in May, 2016)
- Creating a leadership and advisory structure
- Preparing the multi-year workplan.

Work underway in 2017 includes:

- Finalizing appointments to a Leadership Committee
- Establishing the Phase 2 vision and framework
- Identifying each community's local and regional flood mitigation priorities
- Analyzing the:
 - range of flood mitigation options relevant to the lower Fraser River and southern coast of BC
 - decision-making models and cost-sharing options.
- Launching a project on flood management and the environment, including mapping and data analysis, convening an advisory committee and researching best practices
- Taking initial steps on a dynamic, multi-purpose flood scenario analysis tool for Fraser River and coastal flooding. This tool will clarify the extent and depth of flooding and support the evaluation and prioritization of mitigation options.

Phase 2 of the Lower Mainland Regional Flood Strategy is underway



Another stop on the tour — to learn about the work of the Fraser Valley Regional District

Fraser Valley Youth Connect!

Youth from communities in the Fraser Valley gathered in June 2016 to discuss the importance of social connectedness and what they value most about where they live, work and play. The "Connected!" workshop included a tour to Cheam First Nation and to the Fraser Valley Regional District.

This is one of the sustainability events led by FBC's Youth Committee. The Committee looks for ways to encourage youth in community leadership, build their skills and capacity, bridge the generation gap and create opportunities for dialogue and mentoring.

June Quip (right), an Elder and former Chief of Cheam First Nation, speaks about the importance of the Fraser River and salmon to the Stó:lō people – one of the highlights of an FBC Fraser Valley tour for youth.





Bringing Housing to Homeless People in Williams Lake

 Homeless people in Williams Lake gained new hope with roll-out of "Housing First Williams Lake," managed through FBC's Cariboo-Chilcotin office.

Housing First places immediate priority on helping homeless individuals and families to secure housing, and subsequently supports them and connects them to the other community services they may need. Already successful in large city centres, the Housing First approach is now reaching Canada's rural communities.

A survey in February 2017 by Housing First and other community partners showed that a third of homeless people surveyed in Williams Lake had been homeless for six months or more and 15 per cent had been homeless for at least a year. Just over a third of respondents reported a physical health, mental health, addiction or medical issue.

There were six people housed through Housing First Williams Lake during the initial roll-out. A new three-year pilot project is now underway.

Cariboo-Chilcotin Ecosystems — FBC continued work on an ecosystem restoration project in the Cariboo-Chilcotin Region through the provincial Land Based Investment Strategy. Work is directed at restoring historic grasslands/rangelands by removing trees that have encroached on these lands and preventing new in-growth of trees. The intervention was seen as necessary because decades of wildfire suppression and the absence of prescribed burns have contributed to forest in-growth.

A five-year strategic plan will help identify interface fire zones, wildlife issues, threatened ecosystems and other issues and how these overlap with project goals.

Wildfire Planning in the Cariboo — The risk of wildfire and its implications for rural communities in BC's Interior is of growing concern, especially in light of the trend towards long, dry summers that is likely to intensify under climate change.

The City of Quesnel and the Cariboo Regional District, with support from the Union of BC Municipalities and the Fraser Basin Council, are developing a new wildfire protection plan for Quesnel and the surrounding area. The plan will encourage governments, land users and residents to coordinate management activities.

FBC is also expected to assist in the development of a new community wildfire plan for City of Williams Lake; work will begin in the fall of 2017.

Port of Vancouver ECHO Program: Shipping & Whales —

Port Metro Vancouver leads the Enhancing Cetacean Habitat and Observation (ECHO) program, for which FBC serves as a facilitator. The aim of ECHO is to bring different interests together to better understand and manage the impact of commercial vessels and shipping activities on BC's endangered southern resident killer whales.

ECHO has conducted research on underwater noise and worked towards an agreement to reduce noise impacts on killer whales. The project continues in 2017-2018. The goal is to secure industry collaboration in a pilot project to slow down vessel traffic in Haro Strait.

Fort St. John Heliport Review — The Northern Health Authority asked the Fraser Basin Council to facilitate a special steering committee process on the need and feasibility of a heliport at the Fort St. John Hospital.

Although a heliport at the hospital is possible in the future, the steering committee concluded in 2017 that the facility was not medically critical or economically feasible at present. It was recommended that critically injured patients continue to be flown to a nearby airport, then transferred to hospital via ground ambulance. The Committee recognized the need to address the possibility of delays, such as those that can occur at train crossings and urged discussions be undertaken with the Canadian National Railway to that end.



Northeastern BC Paramedic Recruitment & Training — A strategic framework for the recruitment, retention and training of paramedics is a pressing issue for Northeastern BC.

FBC has facilitated an innovative process that includes the BC Emergency Health Service/BC Ambulance and Northern Health, with funding from Shell Canada, which has work camps in the region. Phase 1 identified key issues; Phase 2 focuses on a pilot project to test the feasibility of a paramedic service delivery approach within which BC Ambulance paramedics will work in select Peace River Region communities as well as at Shell's work camps in the Groundbirch area.

Strategic Planning Support — FBC supported strategic planning processes in several First Nations communities in 2016-2017: for Ulkatcho First Nation and the Southern Dekelh Nation Alliance and for Esketemc First Nation relating to ecosystem restoration work in their community forest.

Resource Management Projects

TNG/BC Joint Resources Council – FBC continues to facilitate monthly meetings of the Joint Resources Council, with representation from the Province of BC and Tsilhqot'in communities, to discuss land and resource management referrals under the Tsilhqot'in Stewardship Agreement. FBC also facilitated meetings to assist the Province and the Tsilhqot'in National Government (TNG) Leadership Committee in implementing the Nengay Deni Accord (People's Accord).

This Accord is important. It is aimed at transferring the declared title area (in accordance with *Tsilhqot'in Nation* v. *British Columbia*) to Tsilhqot'in management, benefit and control and negotiating other agreements to effect a comprehensive and lasting reconciliation.

Regional Agriculture/Wildlife Committee – For a number of years, FBC has facilitated meetings of a multi-interest committee that is concerned about land use conflicts between wild animals and domestic animals in agriculture.

Cariboo-Chilcotin Beetle Action Coalition (CCBAC) – For the past 12 years, CCBAC has worked to mitigate the impacts of the mountain pine beetle epidemic in the Cariboo-Chilcotin Region. FBC has provided administrative support to the program.

CCBAC has invested in analysis of environmental, economic and social impacts of the epidemic to identify opportunities for economic diversification and growth, develop a mitigation strategy and invest in key economic and community initiatives. CCBAC wraps up its work in 2017. Learn more at www.c-cbac.com.

Our People

DIRECTORS AS OF MARCH 31, 2017

Colin Hansen

Chair, Fraser Basin Council

Dannielle Alan

Director, Fraser-Fort George Regional District, McBride

Pam Alexis

Director, Fraser Valley Regional District, Chilliwack

Satwinder Bains

Director, Centre for Indo-Canadian Studies, University of the Fraser Valley, Abbotsford

Chief Ian Campbell

Hereditary Chief, Squamish First Nation

Larry Casper

Chief, Tsa'lalh, Seton Lake, Shalalth

Caroline Caza

Regional Director General, Environment Canada

Michael Clague

Former President, Canadian Council on Social Development, Vancouver

Ernie Crey

Chief, Cheam First Nation

Heather Deal

Councillor, Metro Vancouver, Vancouver

Ashley Dobko

Youth Director, Burnaby

Alan Fisher

Owner and Manager, A.D. Fisher Consulting, Williams Lake

Katherine Gizikoff

Manager, Government and Environmental Affairs, Taseko Mines Ltd., Williams Lake

Tom Greenaway

Director, Bulkley-Nechako Regional District, Fort St. James

Blaine Grinder

Stewardship Councillor, Tsilhqot'in National Government

John Haugen

Nlaka'pamux Nation Tribal Council, Lytton

Patricia Heintzman

Director, Squamish-Lillooet Regional District, Squamish

Lee Hesketh

Rancher, Silver Hills Ranch, Lumby

Sydney Johnsen

Principal, Peak Planning Associates, Kamloops

Chris Kelly

C. Kelly and Associates – Education Services, Vancouver

Stephanie Killam

Former Chair, Resources North Association, Mackenzie

Jason Madill

Ernst & Young LLP (EY), Vancouver

John Massier

Director, Cariboo Regional District, Quesnel

Lisa Matthaus

Provincial Lead, Organizing for Change, Victoria

Meggin Messenger

Executive Director, Intergovernmental Relations & Planning, Ministry of Community, Sport and Cultural Development, Victoria

Peter Milobar

Director, Thompson-Nicola Regional District, Kamloops

Dale Parker

Chair, UBC Investment Management Trust | Member, Transit Police Board, Vancouver

Rebecca Reid

Regional Director General, Fisheries and Oceans Canada

Doug Routledge

Former Vice President, Council of Forest Industries, Prince George

Gerry Salembier

Assistant Deputy Minister, Western Economic Diversification, Vancouver

Wes Shoemaker

Deputy Minister, Ministry of Environment, Victoria

Yvonne Smith

Executive Director, Northern Shuswap Tribal Council

Barb Strachan

Citizen & Resident, Fraser Valley Region, Mission

Craig Sutherland

Assistant Deputy Minister, *Ministry of Forests, Lands and Natural Resource Operations

Rene Talbot

Director, Columbia Shuswap Regional District, Falkland

Terry Teegee

Tribal Chief, Carrier-Sekani Tribal Council, Prince George

Lisa Wilson

Representative, Okanagan Nation Alliance, Westbank

SENIOR MANAGEMENT COMMITTEE AS OF MARCH 31, 2017

David Marshall

Executive Director

Steve Litke

Senior Program Manager, Watersheds and Water Resources & Sustainability Indicators

Bob Purdy

Director, External Relations & Corporate Development

Terry Robert

Senior Regional Manager, Upper Fraser

Adriana Ruso

Chief Financial Officer

Mike Simpson

Senior Regional Manager, Thompson

Jim Vanderwal

Senior Program Manager, Climate Change & Air Quality

The staff team listing is continued on page 19

STAFF TEAM AS OF MARCH 31, 2017

Charlotte Argue

Program Manager, Climate Change and Air Quality

Julia Bronson

Program Coordinator, Climate Change and Air Quality

Eliana Chia

Program Coordinator, Climate Change and Air Quality

Ryan Davis

Program Coordinator, Climate Change and Air Quality

Sonja Dodig

Communications Resource Coordinator, Climate Change and Air Quality | Liaison, Climate Action Toolkit

Theresa Fresco

Assistant Regional Manager, Upper Fraser

Amy Greenwood

Assistant Manager, Watersheds and Water Resources

Denise Palmer Hoskins

Communications Manager

Gail Lucier

Program Assistant (province-wide support)

Kim Menounos

Program Coordinator, Upper Fraser

Jessie Ning

Finance Manager

Erin Robinson

Regional Manager, Cariboo-Chilcotin

Tracy Thomas

Assistant Regional Manager, Thompson

Christina Toth

Assistant Regional Manager, Fraser Valley

Erin Vieira

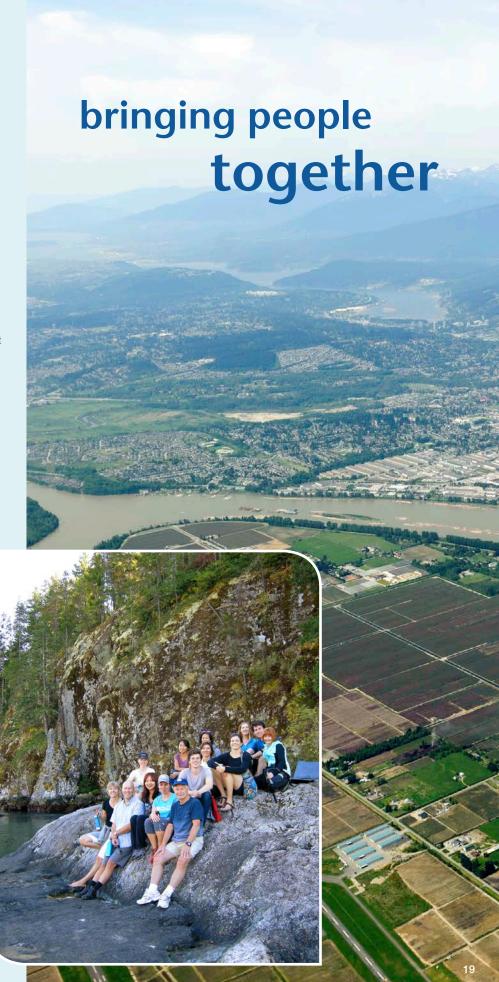
Associate Regional Manager, Thompson

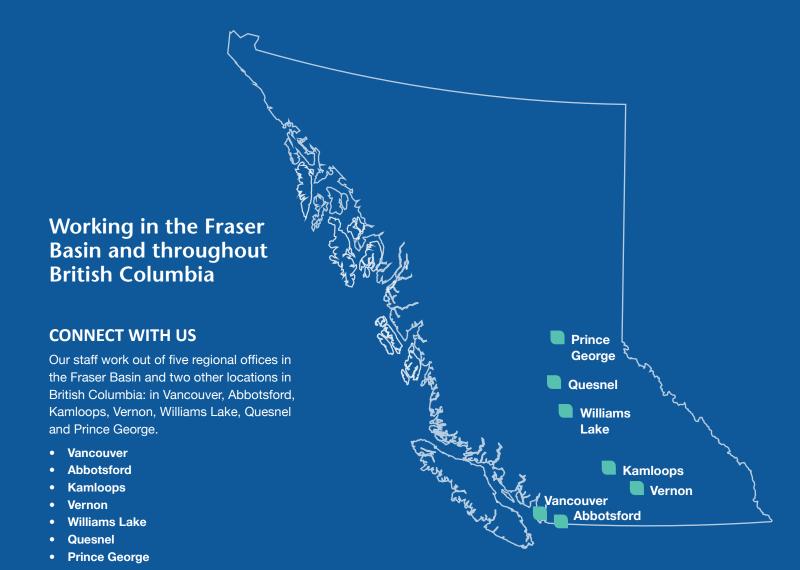
Katie Youwe

Youth Coordinator

Carmen Zaman

Finance Assistant







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