



**ANNUAL HIGHLIGHTS 2021 – 2022** 

# Working with You for Sustainability

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#### **OUR VISION**

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





# **About the Fraser Basin Council**

The Fraser Basin Council (FBC) is a charitable non-profit organization that works to advance sustainability solutions and practices in British Columbia.

Established in 1997, FBC is a collaboration of four orders of government (federal, provincial, local and First Nations), along with people from the private sector and civil society. For the past 25 years, we have helped people learn about sustainability, facilitated multi-interest processes, and rolled out partnership initiatives that focus on climate change, watersheds and water resources, and community sustainability. We support leaders in government, business and community organizations as they work together to face sustainability challenges and to find collaborative solutions and opportunities.

#### **Our Roles**

FBC serves in three key roles:

- Facilitator and Strategic Convener
- Educator
- Program Manager

# **Our Strategic Priorities**

FBC has three strategic priorities to frame our programs and services. We work with others to:

- Take Action on Climate Change
- Support Healthy Watersheds and Water Resources
- Build Sustainable and Resilient Communities

Recognizing that our people are our strength, we are also committed to organizational resilience.

# Principles to Guide the Work

There are nine principles important to the work, reflected in our 2021-2026 strategic plan:

Take a long-term stewardship view

Foster equity and prosperity for all British Columbians

Redefine prosperity

Recognize our dependence on a healthy environment

Acknowledge that natural resources contribute to social well-being and economic prosperity

Advance reconciliation in collaboration with Indigenous Nations and Peoples to uphold the United Nations Declaration on the Rights of Indigenous Peoples

Respect local solutions for local needs

Implement informed and integrated decision-making

Take bold and decisive action

#### THE FRASER BASIN COUNCIL

FBC is a charitable non-profit society that brings people together to advance sustainability solutions and practices in British Columbia.



#### THE CHARTER FOR SUSTAINABILITY

The overall framework for the Fraser Basin Council's work is the Charter for Sustainability. The Charter is a good-faith agreement, signed by multiple sectors in 1997, that reflects a shared commitment to collaborative action for a more sustainable future.



#### Governance

The Fraser Basin Council board has 38 Directors. Our Directors come from all four orders of Canadian government, together with other people from the private sector and from communities throughout British Columbia.

#### **Board of Directors**

There are 22 Directors on the FBC board from government:

- · three from the federal government
- · three from the provincial government
- · one from each of the eight regional districts:
  - Metro Vancouver
- · Thompson-Nicola
- · Squamish-Lillooet Columbia-Shuswap
  - Cariboo
- Bulkley-Nechako

Fraser Valley

- · Fraser Fort George
- · one from each of these Basin's eight major First Nations language groups:
  - Halq'eméylem
  - Hul'q'umi'num'
  - Secwepemctsín
  - St'át'imcets
- Nlaka'pamux
- Nsyilxcen
- Tsilhqot'in
- · Carrier (Dakelh)

The remaining 16 Directors are non-governmental appointees:

- 10 from non-government interests from throughout BC representing diverse perspectives
- three province-wide Directors to reflect the three dimensions of sustainability (social, economic and environmental)
- · a Director from among youth
- · a Director with experience in the finance sector
- a Chairperson

#### **Committees**

There are the four standing committees of the Board:

- Operations
- Finance
- Governance
- Sustainability

Three other committees focus on FBC's three strategic program areas while regional committees help guide local and regional initiatives. A Youth Advisory Committee, together with a youth director, help bring youth voices to the work of FBC - so important for the future.

#### **Staff**

The FBC staff team work from five offices and from several other locations in BC. During the COVID-19 pandemic, staff transitioned into hybrid arrangements (home, office and other locations as called for by the program) and followed public health recommendations for masking, distancing and other safety measures.



When it comes to tackling climate change, there is a dual challenge for leaders in all sectors: to drive down the harmful emissions that contribute to climate change and to increase the resilience of communities to the risks of a changing climate. FBC supports work on both fronts.

# **Plug in BC**

To encourage green transportation, the Fraser Basin Council hosts Plug in BC — a hub of information, incentives and support for BC drivers and fleets interested in electric vehicles (EVs).

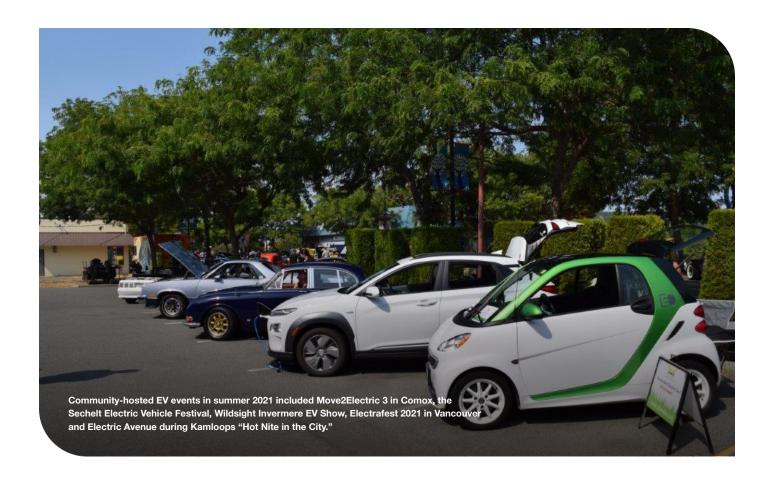
In BC over 90% of electricity generated is clean energy, which makes electric vehicles a good option for driving cleaner and greener. For more than decade FBC has worked with the Province of BC and other partners in laying the groundwork for EVs, as by promoting and administering incentives that help organizations build a network of public chargers for public parking areas, condominiums and workplaces.

The first electric vehicles rolled out in BC in 2009. A decade later there were over 30,000 light duty EVs on the roads – and by early 2022 that number had doubled to 60,000 EVs. By then drivers could plug in at one of 2,500 public charging stations, one of the largest charging networks in Canada. The numbers continue to grow.

# Clean BC Go Electric Fleets & Specialty Use Electric Vehicles

CleanBC Go Electric Fleets is a provincial program that supports the integration of zero-emission vehicles into today's fleets. Managed by FBC, the program offers BC organizations that operate fleets access to resources, training, advisory services and incentives for a business case assessment, a facility analysis, electrical infrastructure and the purchase and installation of charging equipment. Learn more at pluginbc.ca/go-electric-fleets.

Zero-emission specialty-use vehicles that are eligible for rebates include low-speed service vehicles, forklifts, on-road medium and heavy duty trucks, buses, motorcycles and electric cargo bikes. Find details at suvibc.ca.



#### **Emotive #LiveElectric!**

When they opt for electric cars over conventional cars, BC drivers enjoy lower fuel and maintenance costs, plus the satisfaction of lowering their transportation footprint. The experience behind the wheel is sometimes more of a surprise, especially the sensation of super quick, quiet and smooth acceleration. In a nutshell, electric cars are fun to drive!

Emotive – The Electric Vehicle Experience is an FBC outreach campaign. It raises public awareness of electric vehicles through education and events, such as vehicle demonstrations and ride & drive events. These make it possible for the EV-curious to check out several makes and models in one place and ask questions. Follow Emotive on Facebook and YouTube for:

- #LiveElectric stories and videos featuring EV owners from around BC
- · Opportunities to volunteer as an EV ambassador
- Emotive's outreach incentives for communities, non-profits and businesses that want to host local EV events
- Upcoming webinars, community events, myth-busting articles, such as the Globe & Mail EV series in 2021



A 2021 #LiveElectric story shared via Emotive. Lorna of Invermere estimates that she's saved \$2,000 on gas bills since getting an EV, to say nothing of future maintenance costs. "It pays to be part of the solution," she said.



## First Nations Home EnergySave

Many BC First Nations are working to make housing more energy efficient, comfortable and healthy for community members, while also growing local expertise and employment opportunities. In 2021-2022 FBC's First Nations Home EnergySave Program worked in collaboration with Indigenous leaders and funding partners. Initiatives included:

- Train the Trainer: A peer group of eight Indigenous building experts worked with 12 student trainees from four regions in BC on energy-efficient construction. The students, in turn, prepared to share the information with others. This project rolled out in partnership with the Aboriginal Housing Management Association and the British Columbia Institute of Technology (BCIT).
- Ask an Expert: Energy specialists were available to connect with First Nations communities in their early stages of planning or implementing energy-efficient housing projects. Communities canvassed options for the selection of contractors; financing and funding resources; heating, ventilation and air conditioning; building enclosure and systems; and lighting, appliances and home automation.

# Renewable Energy in Remote Communities

Remote communities in BC are increasingly motivated to reduce their reliance on diesel fuel and to seek cleaner, healthier and more reliable energy sources.

Clean BC has helped defray the capital costs of renewable electricity projects in remote communities, with FBC administrative support. In 2021-2022 exciting projects were completed. A new micro-hydro project and a solar project were commissioned by Hesquiaht First Nation and a community solar energy project by Kwadacha First Nation.

#### **Northeast Climate Resilience Network**

The Northeast BC Climate Resilience Network, facilitated by FBC, brings together communities seeking to better understand climate trends, identify local vulnerabilities and plan climate adaptation measures.

The City of Fort St. John, City of Dawson Creek, District of Tumbler Ridge, District of Chetwynd, Northern Rockies Regional Municipality and Northern Health have worked together on the initiative. The Network held a workshop in early 2022 focused on drought and extreme heat, and began a research project with UBC Sustainability Scholars on best practices for community engagement on climate adaptation.



# **Climate Change Tools & Resources**

ReTooling for Climate Change (<u>retooling.ca</u>) can help BC communities build strategies for social, economic and environmental resilience under climate change.

The site profiles top climate adaptation tools and resources for Indigenous governments, local governments, public agencies, academic institutions, industries and businesses.

FBC also hosts, with the Province of BC and UNBC, the Climate Action Toolkit (toolkit.bc.ca). The site offers resources for communities seeking to reduce their greenhouse gas emissions.

# **Air Quality Initiatives**

The Fraser Basin Council team in Prince George is secretariat for the Prince George Air Improvement Roundtable (PGAIR), which has on its board multisectoral representation within the Prince George airshed.

PGAIR is a a hub for air quality research and education, and it administers provincial incentives for people to switch out older wood stoves for heat pumps, gas or pellet stoves or cleaner-burning wood stoves. Learn more at <u>pgairquality.com</u>.

The Kamloops Air Quality Roundtable is another multi-party collaborative initiative facilitated by FBC. The roundtable brings together the City of Kamloops, Tk'emlúps te Secwèpemc, industries, health agencies and others to address air quality. The roundtable wants to raise awareness of air quality issues, help implement the City of Kamloops Airshed Management Plan, identify and address air quality monitoring gaps and implement and measure air quality improvement initiatives.



The Fraser Basin Council supports collaborative approaches to managing watersheds — and helps both governments and others work on such issues as pollution, water demands and shortages, ecosystem health and flood.

Merritt Area 2021.

Photo: Province of British Columbia.



# **Lower Mainland Flood Management Strategy**

The Lower Mainland Flood Management Strategy (LMFMS) is an initiative that brings together governments and other entities with responsibilities for, or interest in, helping Lower Mainland communities reduce the risks of a large-scale coastal or Fraser River flood. Larger and more frequent floods are projected in the region under climate change and expected to cause widespread disruption and losses estimated at \$20-30 billion.

A preliminary working draft strategy was provided to participating agencies for initial input in early 2021. More work was needed to advance consensus on regional flood management priorities and other strategic issues. A new BC Flood Strategy, expected in 2023, is likely to shape regional strategies.

The LMFMS developed tools and resources for decision-makers, including updated 2D floodplain maps of the Lower Mainland (accessible via the FBC and FloodWise websites) and a flood risk assessment (analysis of flood scenarios and vulnerabilities). Details are at <u>floodwise.ca</u>.



# **BC Flood Investigations**

"Investigations in Support of Flood Strategy Development in British Columbia" was a multi-year project overseen by the Fraser Basin Council with provincial funding to help governments and other organizations better understand current challenges and opportunities for flood management in BC.

The report was widely referenced in media reports during the November 2021 atmospheric river flooding in the Fraser Valley and other parts of BC.

The report identifies 40 flood-related issues, such as flood governance, hazard and risk assessment, planning, structural and non-structural mitigation, forecasting, emergency response and recovery and funding and resources.

All projects point to the need for enhanced funding, capacity and governance for more effective flood management, including in the development of foundational information tools, flood management planning and emergency response planning, and implementation of flood mitigation measures.



### **Seismic Standards for Dikes**

The Province of BC introduced Seismic Design Guidelines for Dikes in 2011 (updated in 2014). The aim was to reduce the vulnerability of high-consequence dikes from earthquake damage.

Local authorities and design professionals in the Lower Mainland have found that the standards are technically challenging to implement in many locations and/or cost-prohibitive.

Two projects addressed these issues for the professions. These were funded by the Province of BC and managed by the Fraser Basin Council:

- The report Geotechnical Investigations and Seismic
   Assessment filled information gaps about the seismic
   vulnerability of high-consequence dikes. The assessment
   report is available to local governments and other diking
   authorities by request to FBC.
- Professional Practice Guidelines: Seismic Assessment and Seismic Design of Dikes in BC, was published by Engineers and Geoscientists BC in 2021 and available online. The report supports professionals in the seismic assessment and design of high-consequence dikes.



# **BC's Orphan Dikes**

There are over 100 orphan dikes and erosion protection works in BC totalling 85 km in length. Most are on private land and were constructed during emergency situations, without engineering. They do not meet provincial standards for dikes and have been dubbed "orphan dikes" because they are not actively inspected or maintained by a diking authority.

With provincial funding, the Fraser Basin Council retained experts to undertake a risk assessment of BC's orphan dikes. The work completed in late 2020. In spring 2021 FBC communicated the results to local governments so they were updated on the condition of orphan dikes within their own communities, risks associated with failure of these dikes, and what work would bring each dike up provincial standards and a state of readiness.

Read the Risk Assessment of BC's Orphan Dikes - Summary Report, available on the Province of BC website.

## **Thompson & Cariboo Flood Projects**

Communities in the Thompson region can be at risk from peak river flows during spring freshet, intense summer rain storms, flash floods in some locations and winter ice jams in others.

FBC oversaw a project for the Thompson-Nicola Regional District to undertake base level flood hazard mapping in the region to better understand the flood hazard for future planning. A similar project was undertaken for the Cariboo Regional District. Final project reports were completed in June 2021.

In the aftermath of Coldwater River flooding in and around Merritt in November 2021, FBC oversaw another project, this time to estimate the peak flow of the Coldwater River. The work was to better inform the long-term reconstruction and mitigation efforts of flood authorities. The project report Frequency-Magnitude Relationship for the Coldwater River and a webinar recording are available on the FBC website.

# Fraser Canyon Slides and Impacts on Salmon

BC landslides are a risk for homes, critical infrastructure and transportation routes. Waterways are also at risk as slides can change how rivers flow and how passable they become for fish.

This became clear in late 2018 when a large amount of material broke away from the cliffs above the Fraser River southwest of Clinton in a remote section of the river. The Big Bar Slide, as it was called, created a blockage in the river that significantly and negatively affected migrating salmon due to adverse water flows. Mitigation costs were extremely high.

FBC is a partner on the multi-year project "Landslide impact on flow dynamics, fish migration and genetics of Fraser River salmon," led out of Simon Fraser University as a collaboration between academia and First Nations, with federal support. The aim is to understand how past and present slides in the Fraser River Canyon have affected river flows and migrating salmon populations – and to create a predictive model of potential future slide activity to inform future management and response.



#### More Work in BC Watersheds

FBC supports a number of watershed projects in BC.

The Shuswap Watershed Council (SWC) is a non-profit organization that FBC assists through program and administrative support. In 2021-2022 SWC's work included water quality monitoring, reporting and protection, water quality improvement grants, activities to promote recreational safety on the water, and steps to help boaters avoid introducing zebra and quagga mussels into the lake system. Learn more at <a href="mailto:shuswapwater.ca">shuswapwater.ca</a>.

In the Nicola Basin, FBC has supported various research initiatives. In 2021-2022 this included an analysis of groundwater-surface water interaction within the City of Merritt, including the effect of pumping at the municipal wells and sources of recharge to the Upper Merritt aquifer.

Other collaborative work that FBC assists:

- · Cultus Lake Stewards (Fraser Valley)
- Fraser Valley Illegal Dumping Alliance (Fraser Valley)
- Nechako Watershed Roundtable (Northern Interior)
- · Columbia River Salmon Reintroduction Initiative (Southeastern BC)
- Grasslands / rangeland projects (Cariboo-Chilcotin)
- Shared Waters Alliance (Greater Vancouver Sea to Sky)
- Horsefly River Roundtable restoration projects (Cariboo-Chilcotin)

## The Fraser: A Canadian Heritage River

The Canadian Heritage Rivers System (CHRS) is a national program that recognizes and celebrates the natural, cultural and recreational values of the country's heritage rivers.

The program connects governments, communities and stewardship groups to support the long-term management of rivers for the benefit and enjoyment of all Canadians.

In support of BC Parks, the Fraser Basin Council completed a 10-year monitoring report on the Fraser River. The report identified vulnerabilities in the watershed, including from human activity and climate change, and declines in Fraser salmon stocks — as well as actions taken to protect the river. The report concluded that the Fraser's core natural, cultural and recreational values have endured and that the river should retain its designation as a Canadian Heritage River. Find the report and learn about heritage rivers at <a href="https://creativecommons.org/chi/s

#### Salmon-Safe BC

Salmon-Safe BC is an FBC eco-certification program that recognizes progressive, environmentally friendly land and water management practices, in both urban and rural settings in BC, to better protect the health and habitat of Pacific Salmon.

In 2021 Salmon-Safe partnered with the Pacific Water Research Centre to develop and release the report Creating Safe Cities for Salmon: Exploring How Government Policy Aligns with the Salmon-Safe Urban Standards.

Salmon-Safe BC certified sites over the year, including the Okanagan winery Stag's Hollow, Persephone Brewing Company and Heidi's Peak Estate Vineyard.

The program also hosted a series of educational webinars, including two sessions on Car Tires and Salmon. These focused on research from Washington State universities about a chemical in tires called 6PPD that kills coho salmon in urban streams before they can spawn.

For more on Salmon-Safe certification standards, visit salmonsafe.ca.



# Build Sustainable Communities and Regions

BC communities face a range of sustainability issues — such as how to address a changing climate, encourage water and energy conservation, improve social conditions and inclusivity, strengthen links between urban and rural areas, support strong relationships between Indigenous and non-Indigenous communities, diversify economies and safeguard ecosystems. FBC works with others on multi-interest engagement processes and on programs to support communities in the work.

# Youth Programs – Co-Creating a Sustainable BC

Co-Creating a Sustainable BC empowers youth to connect with community leaders, plan and create their own sustainability projects to address climate change challenges, and work in collaboration with each other and community organizations. Take a look at their work in 2021-2022!

**Thompson:** To support local food security, youth participants assembled mini eco-libraries stocked with books on gardening, plant identification and other topics, and offered seed packets, bookmarks and a QR code for an online listing of local farmers/ food producers.

Cowichan Valley: In collaboration with Cowichan Green Community team, the Cowichan youth cohort helped assemble a community pantry at Kin Park in Duncan's downtown core to provide food and supplies to those in need. To raise awareness of the pantry, they distributed door hangers and posted signage.

Fraser Valley: Youth created and distributed free booklets to help people with few resources better cope with extreme weather events and find support.

North-Central BC: Youth designed a series of map boards that identify Prince George green spaces and outdoor recreation areas within a 15-minute walk. The maps were designed for high-traffic transit stops in major neighbourhoods.







1) Youth in the Thompson display a mini eco-library of gardening books and resources for growing and buying food locally. 2) Youth in the Cowichan build a community pantry to provide food and supplies to people in need in Duncan's downtown core. 3) Following several serious wildfire seasons in the BC, there's growing appreciation of the need for plans and actions. Community Wildfire Roundtables help by bringing together people from different agencies with responsibilities for wildfire preparedness.

#### Northern BC Solid Waste Forum

In October 2021 the North Central Local Government Association, in partnership with FBC, hosted the first regional conference for local elected officials, industry professionals, and stewardship leaders to discuss the challenges and future strategies for managing waste and recycling in the region. The event was a success and a step for collaboration on this regional challenge.

### Supporting Strong Indigenousnon-Indigenous Relationships

FBC serves Indigenous and non-Indigenous leaders and communities in their work together.

FBC facilitates the First Nations–BC Wildlife and Habitat Conservation Forum. The Forum provides advice and recommendations to the Province of British Columbia to fulfill Goal 5 of the Together for Wildlife strategy, which states "Collaborative wildlife stewardship advances reconciliation with Indigenous governments."

The Together for Wildlife strategy sets the direction for wildlife and habitat conservation in British Columbia from 2020 to 2030. The First Nations Forum participants established principles to guide the ongoing collaborative implementation of the strategy. These principles include co-management and shared decision-making with Indigenous governments, communication and education of Indigenous worldviews and approaches to stewardship, and resource capacity-building for Indigenous governments to participate in all aspects of wildlife stewardship. Learn about the Forum at firstnationsbcwildlifeforum.ca.

On another front, FBC served as facilitator for meetings under the Tsilhqot'in National Government-Province of BC Agreements for strategic engagement on shared decision-making on land and resource management.

FBC also facilitated sessions on collaborative stewardship for Qwelmínte Secwépemc (QS), which brings together six Secwépemc communities to work with the Province of BC at a government-to-government table.

# **Community Wildfire Roundtables**

Community wildfire roundtables bring together those with responsibilities for different aspects of wildfire preparedness and risk reduction to improve communications and the coordination of work.

FBC facilitates roundtables in Williams Lake and Clearwater and their surrounding areas, which are focused on implementing community wildfire protection plans. There is also a roundtable in Clinton and, most recently, in Lillooet and area.

Members of the roundtables review and discuss their progress on wildfire management activities, including FireSmart education, timber harvesting, fuel management, traditional burning practices of First Nations, resources and capacity, including involvement of volunteers.

#### **FBC Board of Directors**

As of March 31, 2022

#### Chair

#### Colin Hansen

#### **Directors**

#### Dannielle Alan

Director, Fraser-Fort George Regional District

#### **Simran Bains**

Vice President - Operations, Westberry Farms Blueberries

#### **Wendy Booth**

Community Development Consultant, Fairmont Hot Springs

#### **Tracy Calogheros**

CEO, The Exploration Place Museum & Science Centre

#### **Harley Chappell**

Chief, Semiahmoo First Nation

#### Anna Classen

Regional Director General, Environment and Climate Change Canada

#### Taryn Dixon

Director, Fraser Valley Regional District

#### **Cassie Doyle**

CEO, Canadian International Resources & Development Institute, UBC, and Board Chair, BC Housing

#### **Kevin Duncan**

Natural Resource Manager, Nlaka'pamux Nation Tribal Council

#### **Ann Duong**

Quality Assurance Officer, University of Northern BC

#### Tara Faganello

Assistant Deputy Minister, Ministry of Municipal Affairs & Housing

#### **Percy Folkard**

Rancher, Kamloops

#### **Nancy Gale**

Retired Executive Director, Cariboo-Chilcotin Child

**Development Centre** 

#### **Katherine Gizikoff**

GM Environment and Social Responsibility, Teck Resources Ltd.

#### **Percy Guichon**

Councillor, Tŝideldel First Nation

#### **Lori Halls**

Deputy Minister, Land and Natural Resources Operations Secretariat

#### Patricia Heintzman

Sustainability Consultant

#### **Mina Holmes**

Chief, Carrier-Sekani Tribal Council

#### Mike Hurley

Director, Metro Vancouver

#### Colleen Jacob

Chief, Xaxli'p Indian Band, St'at'imc Nation

#### **Corey Jackson**

Regional Director, Pacific Region, Fisheries and Oceans Canada

#### **Chris Kelly**

C. Kelly and Associates - Education Services

#### Stephanie Killam

Chair, Geoscience BC

#### **Clint Lambert**

Director, Bulkley-Nechako Regional District

#### **Jason Madill**

Ernst & Young LLP (EY)

#### **Rhona Martin**

Director, Columbia Shuswap Regional District

#### Lisa Matthaus

Provincial Lead, Organizing for Change

#### Jeff Mycock

Chief Forester, West Fraser

#### **Janine North**

ICD.D, Haida Gwaii

#### Clarence (Kat) Pennier

Grand Chief, Stó:lō Tribal Council

#### **Tony Rainbow**

Director, Squamish-Lillooet Regional District

#### Steven Rice

Director, Thompson-Nicola Regional District

#### **Bob Simpson**

Director, Cariboo Regional District

#### Naina Sloan

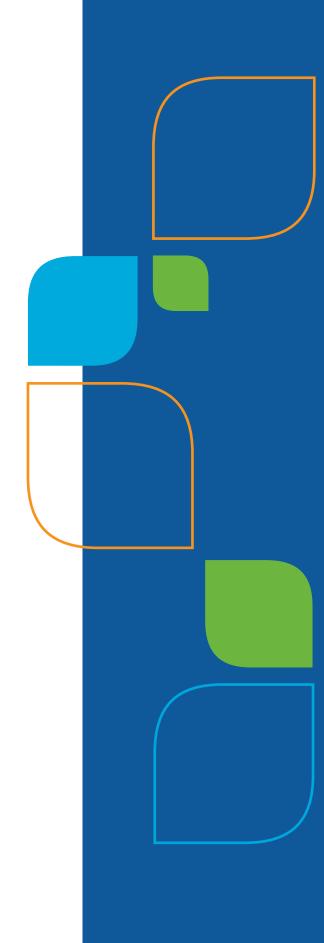
Vice President, Programs and Partners, Pacific Economic Development Canada (PacifiCan)

#### Jamison Squakin

Okanagan Nation Alliance

#### **Richard Walton**

CPA, Former Mayor, District of North Vancouver



### **Connect with Us**

The Fraser Basin Council supports BC communities and organizations with their sustainability challenges. Let's work together! Connect with our staff through any of our offices.

#### **Fraser Basin Council**

First Floor, 470 Granville Street Vancouver, BC V6C 1V5

T: 604 488-5350

E: info@fraserbasin.ca

www.fraserbasin.bc.ca









# In the Regions

FBC has staff members working on programs throughout BC.

**Greater Vancouver-Sea to Sky** 

T: 604 488-5350

Fraser Valley (Abbotsford)

E: ctoth@fraserbasin.ca

**Thompson (Kamloops)** 

T: 250 314-9660

Cariboo-Chilcotin (Williams Lake)

T: 250 392-1400

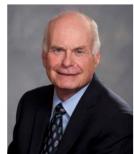
**Northern Interior (Prince George)** 

T: 250 612-0252



NORTHERN INTERIOR REGION

Colin Hansen Chair



David Marshall **Chief Executive Officer** 

