



Collaborative Action on Health and Climate Change **COMMUNITY STORIES**

Prepared by SHIFT Collaborative | April 2021



This document was produced by Kerri Klein of SHIFT Collaborative and Kate Benner

Acknowledgements

The authors would like to respectfully acknowledge that the writing of these stories took place on the territories of the Esquimalt (Xwsepsum) and Songhees Nations, the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and Selílwitlh (Tsleil-Waututh) Nations.

These stories are the result of innovative and collaborative leadership from communities across BC. We are very grateful for the time and energy that community members put into this work and the passion and expertise they shared with us.

We would like to acknowledge Kate Benner, MPH candidate from Simon Fraser University for her support in researching and writing these stories.

We would like to thank the Real Estate Foundation of BC for their support of this project.



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Contents

Health, Climate Change and Resilience in Community Planning.....5

City of Port Moody Climate Action Plan

Mental Health and Climate Change.....8

Community Wellness Collaboration in Thompson Nicola Cariboo

Community Response Strategies for Extreme Heat.....10

Heat Response in City of Vancouver

Heat Response in Village of Ashcroft

Wildfire Response.....14

Collaborative Emergency Management in Tsilhqot'in Nation

Air Quality and Wildfire Smoke.....16

Smoke Preparedness in the North

Community-Led Flood Assessment, Response and Recovery.....17

Syilx Okanagan Flood Risk Assessment

Grand Forks and the Boundary Region Flood Response

Capacity Building and Climate Action.....21

Great Bear Initiative Climate Action Network



Introduction

Since the Framework for Collaborative Action on Health & Climate Change was published in 2019, there has been momentum building to take action on health and climate change in BC and elsewhere in Canada. However, we consistently hear that communities, practitioners, researchers and the health sector are seeking real examples of action. There is a need to share stories and lessons learned from communities that are showing collaborative leadership to address climate change, health and resilience in an integrated way.

This collection of stories is from diverse communities and regions across BC. They demonstrate leadership from First Nations, local governments, health authorities, and non-profit organizations. They feature collaborative action on addressing health and integrating equity into climate action planning, extreme heat, wildfire response, air quality, flood response and capacity building.

Our hope is these stories inspire ideas, motivation and action for continued progress to address health and equity as we work together to build climate resilient communities.



Health, Climate Change and Resilience in Community Planning

City of Port Moody Climate Action Plan

Context

Port Moody is a rapidly growing municipality in Metro Vancouver with a population projection of 50,000 by 2041.¹

In July 2020, the City adopted a comprehensive [Climate Action Plan](#) that strategically addresses both mitigation and adaptation planning by utilizing a low carbon resilience framework co-developed with Simon Fraser University (SFU) Adaptation to Climate Change Team (ACT). The development of the Plan occurred between 2018 and 2020 through the work of a project team including an interdepartmental staff team, consultants, ACT, and the City's **Climate Action Committee**. Key actions included [engaging with the public](#), climate scenario modelling, risk and vulnerability assessments, and evaluating actions. The Plan identified eight **focus areas** that are in line with the vision and direction of the City, align with the latest climate science, and incorporate commitments in the City's Climate Emergency Declaration. Among them is **Emergency Response and Human Health**, which provides a number of goals and priority actions to protect and improve health and well-being throughout the community.

Climate Projections in Port Moody¹



Warmer winters and hotter, drier summers



More frequent and intense weather events
(fires, rainfall, heatwaves)



Increased coastal flood risk



Strains on water supply

¹ City of Port Moody, "Climate Action Plan" (Port Moody, July 2020), <https://www.portmoody.ca/en/city-hall/climate-action-plan.aspx>.



Photo credit: City of Port Moody

Emergency Response and Human Health

Informed by climate projections for the region, the human health focus area was developed with the support of Fraser Health, the City's Emergency Response team, and the Climate Action Committee. This **multi-stakeholder involvement** helped to incorporate community values and understand strengths and vulnerabilities to climate impacts.

The focus area was guided by **two broad goals** and considered the impact of action on greenhouse gas emissions where appropriate:

1. Ensure all community members have access to necessary resources and supports related to climate change adaptation (especially marginalized populations)
2. Improve City response to climate-related hazards (including flooding, wildfires, extreme heat) as they impact human health.

Key Actions

Actions under this focus area included **strengthening city operations** to respond to extreme weather events, developing **equity-informed weather response plans**, and **continuing education and partnerships**.

Two risk assessments were performed to identify *how* the community could be impacted by climate change, the likelihood of the impact occurring, and *who* may be most vulnerable to these impacts. To monitor and evaluate their progress, a set of draft indicators were also developed (see: [Climate Action Plan](#), pg. 53).

See pg 28 of the their [Climate Action Plan](#) for a summary of the Emergency Response and Human Health Actions.

Leadership & Lessons Learned

Development of the Climate Action Plan was enhanced by diverse and multidisciplinary representation in Working Groups, Committees, and Advisory Groups. This ensured that the Plan was reflective of community values and was guided by a range of perspectives. Other **lessons learned** from the Plan included:

- By including a **health focus** in the Plan, there was more community buy-in as it is often a **shared value/concern** of residents and climate action strategies can have **significant health co-benefits**.
- Developing a **strong partnership early on with Fraser Health Authority** and their Healthy Built Environment Team was important. They engaged staff right from the beginning during the Climate Risk assessment phase all the way to developing actions.

- Creating **avenues for continuous engagement** with community members, especially populations who are most impacted by climate emergencies, is crucial.
- **Establishing a common language** at the outset was important to ensure common ground across key players.
- **Staying connected** to other jurisdictions (e.g. Province of BC and First Nations) and other communities that are integrating health considerations in their climate adaptation plans offers opportunities for learning from and collaboration with each other.

Read more about the Plan here: portmoody.ca/en/city-hall/climate-action-plan.aspx#Our-Plan-was-developed-with-input-from-the-community



Emergency response and human health

- Number of departments and staff trained in emergency response functions (ICS, EOC, ESS).
- Maintain a fund in the financial reserve with an appropriate balance to support extreme weather events.
- Number of improvements to indoor and outdoor public spaces to provide cooling during high heat.
- Air temperature in community gathering locations or area of shade provided in same locations.
- Number of public drinking water fountains and water parks/features.
- Number of staff schedule adjustments due to extreme weather.
- Number of people engaged by preparedness outreach.
- Number of organizations and businesses partnering on preparedness education and messaging.
- Social connectedness as measured through local plans and partner organizations such as Fraser Health My Health My Community survey.
- Number of community partnership opportunities.
- Percent of residents that can easily walk (400m) or bike (within 800m) to meet all basic daily non-work needs and have safe pedestrian or bicycle access to transit.

Figure 1: Draft Key Performance Indicators



Mental Health and Climate Change

Community Wellness Collaboration in Thompson Nicola Cariboo

Context

Climate-related events can significantly impact our mental health, both directly and indirectly. This can include grief, anxiety, and post-traumatic stress disorder from acute events (such as, flooding, hurricanes), and general feelings of eco-anxiety, hopelessness, depression, and chronic stress.² As communities prepare for and respond to climate change, it is critical that mental health and wellbeing is part of our any community resilience approach.

Supporting Mental Health and Wellness Post-Wildfire

In 2017 and 2018, B.C. experienced record-breaking wildfire seasons. Both years resulted in a Provincial State of Emergency, over \$600 million in costs, and tens of thousands of people evacuated from their homes.³ While no lives were lost, the fires had severe and enduring impacts on the [mental health and well-being of the involved communities](#) and emergency personnel. Identifying and responding to community mental health needs was key to prevent further harm.



2 Helen Louise Berry, Kathryn Bowen, and Tord Kjellstrom, "Climate Change and Mental Health: A Causal Pathways Framework," *International Journal of Public Health* 55, no. 2 (2010): 123–32.

3 BC Wildfire Service, "Wildfire Season Summary - Province of British Columbia" (Province of British Columbia, 2020), <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/wildfire-history/wildfire-season-summary>.

Community Wellness Collaboration in Thompson Nicola Cariboo

Following the 2017 wildfires, United Way Thompson Nicola Cariboo worked with a range of community partners to both form and build on pre-existing mental health working groups (MHWGs) in Ashcroft, 100 Mile House, Quesnel, and Williams Lake. Working group membership included: the Canadian Mental Health Association, local school districts, BC Ministries, service agencies, the First Nations Health Authority, Interior Health, BC Emergency Health Services, Indigenous leadership, the BC Nurses Union, and the Red Cross. The aim of the working groups was to allow community members to identify service needs and support sustainable recovery and long-term solutions. United Way provided leadership to develop a **wildfire recovery team**, which included **Community Wellness Managers** (CWMs) that each served a specific region.

Outcomes

The work of the CWMs and MHWGs were successful in **increasing awareness** of the mental health impacts of wildfire disasters, **reducing silos** between community organizations, and **fostering community** through events and workshops. In the long-term, the CWMs also aimed to **integrate mental health into future emergency planning** and **share their findings** with the Ministry of Mental Health and Addictions.



Lessons Learned

- **Emphasize Comprehensive Emergency Management:** Emphasis was placed on emergency management approaches that were inclusive of all community members and tended to a range of needs, including mental health and wellbeing.
- **Building Capacity & Resilience Through Training:** Training opportunities played a vital role in building community resilience. “Training the trainer” certifications included Mental Health and Psychosocial First Aid, Cultural Safety, Applied Suicide Intervention Skills, Critical Incident Stress Management, and Crisis Intervention.
- **Celebrate Strengths and Assets:** Community events and engagements were critical to provide an opportunity for reconnection and healing as well as to recognize and celebrate post fire recovery efforts.

Community Wellness Managers at-a-glance:

- **Identify** psychosocial impacts of the wildfires and vulnerable populations
- **Partner** with mental health working groups and local organizations to identify service gaps and duplications
- **Host** wellness seminars for impacted front-line workers and community members
- **Organize and facilitate** wildfire anniversary events to allow communities to decompress and reflect
- **Promote** existing mental health supports (Kids Help Phone, Talk in Tough Times program, etc)
- **Offer** Psychological First Aid and other relevant training certifications for service providers ([Learn more here](#))



Community Response Strategies for Extreme Heat

Heat Response in City of Vancouver

Heat Response in Village of Ashcroft

Context

British Columbia is warming at a faster pace than many other parts of Canada.⁴ By 2050, the average annual temperature could rise by up to 2.7°C, which could result in more frequent and intense heatwaves.⁵ While heatwaves can result in severe health-related consequences (such as, heat-related illnesses, stress, and impacts on maternal and child health)⁶, effective and proactive adaptation strategies can greatly reduce these impacts.

Heat Response in City of Vancouver

After a severe heatwave in 2009, the City of Vancouver formed the **Extreme Hot Weather Committee**, which included representation from the Vancouver Coastal Health Authority, BC Housing, the Greater Vancouver Shelter Strategy, and the Coroner's Office. With the help of community consultations, the Committee developed a [Heat Preparedness and Response Plan](#). The plan aimed to coordinate a community-based response during extreme heat events and protect the most vulnerable. Implementation was divided into two phases:

- **Phase I:** Communicate heat awareness information, issue alerts, pilot water stations, connect with research partners
- **Phase II:** Carry out heat mapping, identify best strategies to protect vulnerable populations, develop emergency response plans, etc.

Collaborative efforts to address extreme heat events continued into the City of Vancouver's [Urban Forest Strategy](#) and [Climate Change Adaptation Strategy](#). Actions included a mapping project to identify urban heat islands within the city and increase the tree canopy for better shade. Community engagement sessions were also done to understand the lived experiences of residents most vulnerable during heat waves. The [key findings](#) were shared with the City of Vancouver to continue to support their planning and management strategies.

4 Environment and Climate Change Canada, "Canada in a Changing Climate," 2019, <https://changingclimate.ca>.

5 Province of British Columbia, "Impacts of Climate Change - Province of British Columbia" (Province of British Columbia, 2020), <https://www2.gov.bc.ca/gov/content/environment/climate-change/adaptation/impacts>.

6 Interior Health, "Heat Alert & Response Planning for Interior BC Communities: A Toolkit," 2020, 26.

Key Lessons

To effectively respond to complex challenges like heatwaves, key lessons and challenges were shared:

- **Cross-departmental and Cross-sectoral Collaboration:** Extreme heat requires involvement from multiple departments and sectors through collaborative structures and strategies (i.e. Extreme Hot Weather Committee, Urban Heat Island Strategies).
- **Need for Targeted Responses to Most Vulnerable:** Seniors, people with inadequate housing, underlying health challenges, and substance use are most impacted by extreme heat. Focus must be on equity-driven responses to ensure their well-being.
- **Engage People with Lived Experience:** Effective heat response strategies require input from frontline service workers and those with lived experience—partnerships are key.

Innovative Ideas to Address Heat

- **2019 Partnership with Evergreen** to engage seniors and residents of the Downtown Eastside to understand lived experience of heat and air quality.
- **2020 Heat Watch Program** engaged volunteers to cycle around neighbourhoods to conduct micro heat mapping.
- **2020 “Cooling parklet”:** A platform that extends from sidewalks into street parking that can include benches, tables, and landscaping to provide shade, seating, and possibly water availability and water-misting devices. Vancouver partnered with Atira Women’s Resource Society in 2020 to create a ‘cooling parklet’ in front of housing facilities downtown.
- **2020 Heat Response during COVID:** Heat Mapping overlaid with vulnerability mapping provided a business case for which community centres needed to be open and staffed during heat events.



Photo Credit: City of Vancouver



Heat Response in Village of Ashcroft

Historic temperature data shows that Ashcroft is one of the **hottest municipalities** within B.C. and often within all of Canada. In 2018, Interior Health partnered with the Village of Ashcroft to develop and implement a **Heat Alert and Response Plan** to lessen the negative health impacts of extreme heat events, with a focus on at-risk populations. The plan had to accomplish three goals: it had to be (i) simple and easy to put into action; (ii) clearly outline who was responsible; and (iii) use existing infrastructure.

The Village of Ashcroft formed a **Community Stakeholder Committee** comprised of local and regional government partners, community members and organizations, and First Nation Band members. Various community stakeholders were engaged in the development of the plan and they are responsible for their respective response actions during an extreme heat event. The Village of Ashcroft is the lead agency responsible for initiating the plan once a heat alert is issued.

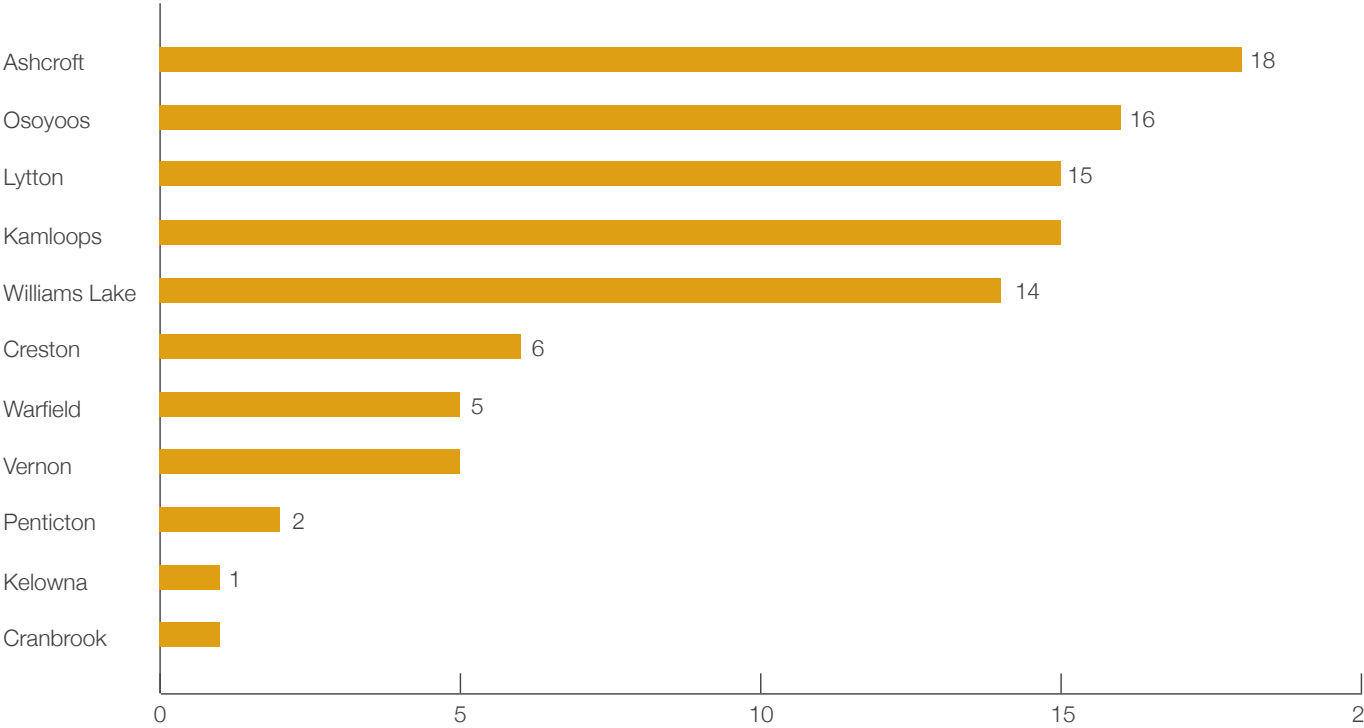
The resulting plan outlines protocols and actions for **three stages of a heat alert:**

- **Pre-heat Notifications:** Education and awareness that the Village is starting to experience hot weather and to watch for further heat alerts (i.e. mail out of pamphlets, update heat information on website, email stakeholder contacts, educate employees).
- **Level 1 Heat Advisory:** Notify the public that the Village of Ashcroft will be experiencing extremely hot weather ($\geq 35^{\circ}\text{C}$ for 2 consecutive days AND overnight temperature $\geq 18^{\circ}\text{C}$) along with key public health messaging related to prevention of heat related illness.
- **Level 2 Heat Advisory:** Notify the public that the Village is experiencing extremely hot weather for 3 consecutive days, affecting the health of the population. Messaging and actions aim to protect those that are more susceptible to heat related health problems by **preparing cooling centres**, signage in parks to limit outdoor activity, reviewing operating hours at pool, etc.

Challenges and Lessons Learned

- As a small community with limited resources and capacity, the village had few public spaces that are air conditioned and ensuring access to those buildings for extended periods was a challenge.
- They looked at existing facilities to explore how they can be used as cooling centres.
- They also identified stakeholders in the community that could be responsible for producing their own heat response plans.

Learn more about heat response in Interior BC here: interiorhealth.ca/YourEnvironment/Emergency/ExtremeHeat/Documents/Heat%20Alert%20and%20Response%20Planning%20Toolkit%20for%20Interior%20BC%20Communities.pdf



Number of heat warnings for select communities in the Interior Region (2013-2017)⁷

⁷ Interior Health (2020). Heat Advisors. [www.interiorhealth.ca/YourEnvironment/Emergency/ExtremeHeat/Pages/Heat-alert-and-response-system-\(HARS\).aspx](https://www.interiorhealth.ca/YourEnvironment/Emergency/ExtremeHeat/Pages/Heat-alert-and-response-system-(HARS).aspx)



Wildfire Response

Collaborative Emergency Management in Tsilhqot'in Nation

Context

The Tsilhqot'in Nation represent six communities (Tl'etinqox, ʔEsdilagh, Yunešit'in, Tšideldel, Tl'esqox and Xení Gwet'in) that live in what is now called central B.C. In 2017, B.C.'s record-breaking wildfire season significantly and disproportionately impacted Tsilhqot'in land, burning over 760,000 hectares and impacting mental health and livelihood.⁸ Controlling the wildfires exposed long-standing jurisdictional conflicts, strained funding for community-led emergency services, and a dismissal of Tsilhqot'in leadership and expertise from emergency management teams. Even so, the communities mobilized to take care of each other and their lands, as they have for generations. Acknowledging the greater risk of wildfires as a result of climate change, strengthening emergency planning and reducing vulnerability were a key priority for Indigenous, provincial, and federal governments.

In 2018, the Tsilhqot'in Nation and federal and provincial governments entered into a novel [Tripartite Collaborative Emergency Management Agreement](#). Referencing the cross-jurisdictional landscape of emergency management on reserves, the agreement aimed to: i) recognize and outline Tsilhqot'in leadership in emergency management; ii) improve risk assessments and collaboration across service partners; iii) establish a common framework based on trust and respect.

Following the Tripartite Agreement, the Nation put together a set of strategic recommendations in their report: [The Fires Awakened Us](#). Calls to action to improve emergency management and protect health and wellbeing included:

- **Infrastructure requirements:** Improve safety and structural quality of facilities (incl. air filtration, safety and emergency equipment, water infrastructure, Emergency Centre)
- **Pre-disaster agreements:** Develop service agreements with providers (Denisiqi Services Society, Nenqayni Wellness Centre Society, Cariboo Friendship Society); mandate cultural safety training; establish community protocol for outside providers
- **Affirm Tsilhqot'in Role:** Create emergency response framework grounded in Tsilhqot'in expertise; build capacity for community and Nation emergency management; establish holistic health support system

In addition, each community (Tl'etinqox, Yunesit'in, Tl'esqox, Tsi Deldel, ʔEsdilagh, Xení Gwet'in) identified specific needs. A full list of calls to action can be found [here](#).

⁸ Crystal Verhaeghe, Emma Feltes, and Jocelyn Stacey, "NAGWEDIŽK'AN GWANESĖ GANU CH'INIDŽED GANEXWILAGH - The Fires Awakened Us," 2019, <https://www.fness.bc.ca/downloads/the-fires-awakened-us.pdf>.



Key Lessons

Overall, the Tsilhqot'in experience revealed the need for pre-determined, **coordinated action** and **respectful partnerships** to avoid disproportionate impacts on populations that are most at risk to climate hazards. This is especially important for rural and remote communities who already face difficulties in access to essential services.

Reflecting on this example of collective community strength and resilience, key lessons were shared:

- A **restructured approach** to emergency management and planning within the territory must be built on collaborative decision-making, respect, and recognition of First Nations leadership and governance;
- **Integrating traditional knowledge** and land practices with western science can strengthen management and planning; this must be achieved through building Tsilhqot'in capacity; and
- Climate change planning must incorporate **health and wellness considerations** specific to Indigenous peoples, including holistic mental health supports⁹ and advanced planning with trusted service providers.

Toward Equity-Centered Disaster Management

As evidenced above, strengthening emergency management continues to be an urgent issue as climate change increases the frequency and intensity of environmental disasters. Recognizing that the impacts of climate change are not evenly distributed across society, emergency management strategies must also consider a health equity approach. Practical tools, such as the [CCGHR Principles](#), can support decision makers with this commitment.

⁹ George Abbott and Chief Maureen Chapman, "Addressing the New Normal: 21st Century Disaster Management in British Columbia," 2018, <https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/embc/bc-flood-and-wildfire-review-addressing-the-new-normal-21st-century-disaster-management-in-bc-web.pdf>.



Air Quality and Wildfire Smoke

Smoke Preparedness in the North

Context

Diminished air quality from wildfire smoke has physical and mental health impacts for people and communities in B.C., particularly for the elderly, the young, and those with respiratory conditions.¹⁰ Protecting against the health and social impacts of wildfire has become a key priority for many communities.

Wildfire Preparedness in Northern Health region

In May 2019, the BC Centre for Disease Control (BC CDC) hosted a **Practical Smoke Preparedness Workshop** in Prince George. The workshop was aimed at agencies involved in wildfire planning and management, including the Northern Health Authority and First Nations Health Authority (FNHA), municipalities, NGOs, and air quality roundtables.

As part of the workshop attendees were provided with a series of fact sheets, including:

- [Understanding the health effects of wildfire smoke](#)
- [How to prepare for wildfire smoke season](#)
- [Use of portable air cleaners for wildfire smoke](#)
- [The composition of wildfire smoke](#)

Supporting a coordinated and equity-driven response to wildfires has continued through work done by Northern Health and the FNHA. For example, the FNHA created a **Clean Air Shelters** [resource guide](#) to limit smoke exposure within the home and community. The guide encourages identifying and partnering with local facilities (libraries, halls, etc.) for use as clean air shelters during smoke events.

Clean Air Shelters

A home or building with appropriate filtration to reduce smoke exposure; involving use of portable air cleaners, central air system, or access to ground floor and basement level.

Learn more about wildfire smoke here: bccdc.ca/health-info/prevention-public-health/wildfire-smoke

¹⁰ Northern Health, "Healthier Northern Communities: E-Brief," 2019, https://www.northernhealth.ca/sites/northern_health/files/services/healthy-living-communities/ebriefs/documents/ebrief-may-2019.pdf.



Community-Led Flood Assessment, Response and Recovery

Syilx Okanagan Flood Risk Assessment

Grand Forks and the Boundary Region Flood Response

Context

Flood risk is a growing concern across all of British Columbia as a result of heavier precipitation, rising sea levels, and warming temperatures. The impacts to health are wide-ranging, including: stress-related mental health outcomes, food and water insecurity, damage to key infrastructure and barriers to access key services.¹¹ Across the province, community and regional champions have worked to prevent these effects through building resilience and developing adaptation strategies.

Integrated Flood Risk Assessment in Syilx Okanagan Territory

The Okanagan region is experiencing warmer temperatures and increased precipitation, worsening the flood risk in the valley bottoms (where most of the population is located).¹² Already in 2017, the Syilx Okanagan territory was impacted by extreme flooding, threatening community and ecosystem health. Recognizing a lack of a basin-wide approach to flood risk management, the Okanagan Nation Alliance (ONA) led the **Syilx Okanagan Flood and Debris Flow Risk Assessment** in 2018.¹³

The goal of the project was to better **understand flood and debris flow risk** within the Okanagan-Similkameen basin and, in turn, inform risk mitigation activities. As well, the project took an **integrated approach** to risk management, combining **Syilx land-based knowledge** on water with **western watershed management** practices. The risk assessment was prepared with direction from Syilx knowledge keepers.

¹¹ Government of British Columbia, "Impacts of Climate Change," n.d., <https://www2.gov.bc.ca/gov/content/environment/climate-change/adaptation/impacts>.

¹² Regional District of North Okanagan, Regional District of Central Okanagan, and Regional District of Okanagan-Similkameen, "Climate Projections for the Okanagan Region," February 2020, http://www.rdno.ca/docs/200104_OK_ClimateReport_Final.pdf.

¹³ Okanagan Nation Alliance, "Syilx Tíkt (Flood) Adaptation Project," 2020, <https://www.syilx.org/natural-resources/water/flood-risk-assessment>.



Photo Credit: Okanagan Nation Alliance

Key actions as part of the project included:

- Forming a **flood steering committee**, with representation from local governments and Syilx Okanagan Nation member communities
- [Exploring local perspectives](#) on the impacts of flooding through workshops, impact mapping, storytelling, etc.
- [Scoring risk](#) on a watershed scale through exposure and hazard mapping, hazard modelling, etc.

Outcomes

- A range of impacts were explored in the risk assessment, including: risks to the environment, affected people, culture, mortality, economics, and disruption. This was done through combined quantitative and qualitative activities, which produced a comprehensive [synthesis of findings](#) and a list of recommendations.
- The process utilized Syilx processes of decision-making and traditional knowledge to centre the story and lessons of “respecting siwɬk” (water): water is powerful, water is life and water is connected.
- The work advanced **relationship building and co-learning** between Indigenous and non-Indigenous partners in ecosystem-based management. This created a more holistic and well-rounded understanding of a complex problem.

Learn more about the project here: syilx.org/natural-resources/water/flood-risk-assessment



Boundary Flood Response and Recovery Strategy

In 2018, Grand Forks and the Boundary Region experienced the worst flood in history. Heavy rain, warm temperatures, and a large snowmelt caused the confluence of the Kettle and Granby rivers to exceed a '200-year' flood level. As a result, the region was faced with nearly \$40 million in damage, over 1500 evacuees, and drinking water advisories.

Responding to the aftermath of the flood was guided by the **Grand Forks Response and Recovery Strategy**. This was **community-led** and involved collaboration between the Regional District of Kootenay-Boundary Emergency Program, City of Grand Forks, many community partners, the Red Cross and the Province of BC. Unique to the response was a **five-pillar** recovery management model: Critical infrastructure, Wellness, Economy, Environment, and Housing. The model's emphasis on strong and collaborative leadership, local capacity building, and use of a case management approach contributed to its success.





Health & Well-being in Recovery

The flood had significant social, psychological and health impacts on the community, particularly for **the low-income, homeless/precariously housed, elderly, women and Indigenous peoples.**¹⁴

The Wellness pillar utilized a case management approach that provided individualized outreach and engagement to different populations in the community. This was important to ensure the response effort was aware of and acting on a range of needs from populations that would not have sought out support on their own. Personal relationships and trust were established between those most impacted and the lead agencies.

Key lessons from the Grand Forks response strategy included:¹⁵

- Risk / vulnerability assessments and advance planning must include considerations of health and wellbeing for diverse populations, including cultural safety for Indigenous peoples.
- There is a need for improved and timely **mental health supports** for populations most impacted.
- Continue to **prioritize leadership from and capacity building with local organizations** in response and recovery, as they have the knowledge, experience, relationships and trust to support those populations in the community most impacted.
- **Build a better understanding** of vulnerabilities experienced by sub-populations in rural and remote areas
- **Clarify roles and expectations** across levels of government to avoid unnecessary wait times and inefficiencies.

¹⁴ Hoogeveen, D. and Klein, K (2021). Social Impacts of the Grand Forks Flood: A Gender Based Analysis of Climate Risk.

¹⁵ Hoogeveen, D. and Klein, K.(2021). Social Impacts of the 2018 Grand Forks Flood: A Gender Based Analysis Plus.



Capacity Building and Climate Action

Great Bear Initiative Climate Action Network

Context

The impacts of climate change are felt on a community-level through both acute events (environmental disasters) and chronic impacts (food security, mental health, resource depletion). As such, building capacity for community members and organizations to identify priorities and lead local adaptation and mitigation planning is an essential component of climate action. Capacity building can involve providing opportunities, skills, resources, and knowledge to communities in order to effectively adapt and prepare.¹⁶ Investments such as education, mentorship, and cross-community networks allow communities to identify their own priorities, build leadership, and share their experiences with others.

Great Bear Initiative Climate Action Peer Network

While Indigenous communities along B.C.'s central coast have adapted to environmental changes and cared for the land for thousands of years, they are currently experiencing significant impacts from a changing climate in their traditional territories, including changes in the health of salmon populations, diminishing numbers of key species, and lower harvests of traditional foods. As the health of the land, food, communities, and people are deeply connected, these disruptions have far-reaching impacts on wellness and identity for Coastal First Nations communities. The effects of climate change have bolstered community efforts to uphold traditional laws of each Nation in order to steward the land and maintain self-governance and autonomy to guide communities for generations to come.

In 2000 the Coastal First Nations Great Bear Initiative was created as a collective of nine First Nations (Metlakatla, Gitxaala, Heiltsuk, Nuxalk, Gitga'at, Kitasoo/Xai'xais, Wuikinuxv, Skidegate,

Old Massett and the Council of the Haida Nation) that are working to build a conservation-based economy in their traditional territories.

Climate Action Coordinators at-a-glance

In 2019, the **Great Bear Initiative Climate Action Peer Network** was developed as part of an effort to support Climate Action Coordinators within each member Nation through regular meetings and project support.¹⁷ Each coordinator is leading and supporting climate action within their own communities through projects such as community energy plans, emergency preparedness, food security initiatives, clean energy systems and energy efficient infrastructure (see: [Annual Report](#), p. 20).

¹⁶ Climate ADAPT, "Capacity Building on Climate Change Adaptation," 2019, <https://climate-adapt.eea.europa.eu/metadata/adaptation-options/capacity-building-on-climate-change-adaptation>.

¹⁷ Coastal First Nations, "Coastal First Nations Great Bear Initiative: Annual 2019 Report," 2019, https://coastalfirstnations.ca/wp-content/uploads/2020/09/CFN-Annual-Report-2019_FINALFORWEB_SINGLEPAGES.pdf.



Key features of the Climate Action Peer Network program include:

- Supporting local capacity building through training, coaching, and funding;
- Respecting local knowledge, priorities, and wisdom of communities; and
- Working together to share learning, stories, lessons, and opportunities.

Lessons Learned

Success of the Peer Network model is attributed to its emphasis on **building community capacity** through collaborative action while **prioritizing flexibility** to allow communities to take their own approach.

Key takeaways from the Climate Action Peer Network include:

- Setting the Network's goal as **advancing community priorities**, even if these look different across communities;
- Identifying **community champions** and **building their capacity** to support sustainable and long-term action in communities; and
- **Building a shared vision with communities.**
As caretakers of the land, they are acutely aware of the impacts and the lived experience of climate change.

To learn more about the Peer Network program, visit: <https://coastalfirstnations.ca> or contact the Climate Action Peer Network Coordinator, Michael Vegh: mvegh@coastalfirstnations.ca

Appendix



This **Framework for Collaborative Action on Health and Climate Change** provides a map of key “action areas” for addressing the intersections of climate change and health in BC. More information on the intersections of health and climate change and opportunities for collaborative action are included in the complete User Guide that accompanies this summary, available at: www.shiftcollaborative.ca/framework



LEAD: Leadership & Governance

The recent report from the Intergovernmental Panel on Climate Change (IPCC) makes it startlingly clear: bold, visionary and collaborative leadership is needed now to avert the most devastating consequences of climate change and ensure a healthy quality of life for all. In the face of many competing priorities, the kind of bold action needed now will require champions and leaders to take bold steps that seem impossible. ***How can we call forth inspired and committed leadership in individuals and collectives, in order to forge a path together through inevitable uncertainty and complexity?***



INCLUDE: Health Equity & Climate Justice

The impacts of climate change are not equally or fairly distributed across people or communities. Already socially and economically disadvantaged populations will be more adversely affected by the health impacts of climate change, and generally have less capacity to adapt to the increased stressors. In addition, planning and decision-making processes continue to marginalize already vulnerable groups. However, many of the drivers of existing socioeconomic inequities are also at the root of climate change. ***How can we respond to climate change in ways that transform economic and social systems to increase equity, fairness and quality of life for all?***



SUSTAIN: Healthy Ecosystems and Communities

Climate change exacerbates the challenges faced by already stressed environmental systems. Beyond a certain point, humans cannot physically survive without healthy air, water and food systems, and these all depend on, and influence, the health of broader ecosystems. ***How might we better work across sectors to protect, restore and regenerate the natural systems that sustain us?***



RESPECT: Indigenous Rights & Culture

Here in BC we live on the largely unceded territories of the first peoples of these lands, where all of our actions on climate change and health—past, present and future—take place. Indigenous communities' connection to their traditional territory is vital to their identity and is particularly affected by the impacts of climate change. A commitment to reconciliation is at the heart of building resilience for all of our communities, and cannot be fully realized without including Indigenous peoples' stake and leadership in addressing climate change. ***How might our work at the intersections of climate change and health provide leadership to the ongoing process of reconciliation?***



ENGAGE: Engagement & Cross-Sector Collaboration

Addressing the causes and impacts of climate change requires integrated action across all sectors (including health, all levels of government, academic, non-profit and business sectors) and groups in society. However, we are often stuck in silos, facing significant barriers to aligning our visions, resources and actions to move in a common direction. It is particularly important that those who are affected, are included in developing responses to those impacts. As well, climate change spans past, current and future generations; the voices and actions of both young and old are needed. ***How can we evolve our approaches, mobilize our collective creativity and wisdom, and align resources to effectively address the complexities and intersections of climate change and health?***



EMPOWER: Information, Communications & Capacity-Building

The ongoing development and maintenance of local and expert research, monitoring and data is a foundation for informed design and decision-making. To make the most of available resources, we must also improve the accessibility and openness of data and information sharing systems to unleash our collective capacity to translate information into action. In support of all other action areas,

effective communications, meaningful engagement, capacity-building and education will be needed to enhance climate and health literacy across sectors. ***How can we generate and apply information and build capacity in ways that empower all stakeholders to take responsibility and aligned action?***



ACT: Innovation for Healthy & Climate Resilient Communities

As a province we need to reduce our GHG emissions by 80% in the next 30 years. This is nothing short of a profound call to rethink and transform the systems we depend on to live (i.e.: energy, transportation, food, economy). At the same time, there are many opportunities to innovate through aligned strategies that simultaneously reduce GHG emissions while protecting and also improving health and well-being in the face of climate impacts. Preparedness and the capacity to respond to, recover from, and build resilience to both chronic stressors as well as extreme events relating to climate change, has direct implications for health outcomes. But to achieve all of this, we have to go beyond business as usual and reimagine how communities can function in ways that will be resilient in the face of drastically changing conditions. ***How can we innovate through the strengths and tools available in various sectors, to create low carbon systems and conditions that can drastically improve health & resilience in an uncertain future?***



CARE: Personal and Social Resilience

We can't build a resilient future if we ourselves are not healthy and resilient. The demands of being aware of and involved in addressing the intersections of climate change and health—whether in an acute sense such as emergency responders, or the long game of raising awareness and changing mindsets and actions to adapt and transform systems—are growing, and place a real strain on those at the frontlines of climate impacts and responses. ***How can we ensure that supporting personal resilience and caring for each other is at the heart of our efforts to build a healthy and climate resilient future for us all?***

Framework for Collaborative Action on Health and Climate Change:

ACTION AREAS

City of Port Moody Climate Action Plan



Lead



Act



Include



Engage

Smoke Preparedness in the North



Lead



Care



Empower



Engage

Community Wellness Collaboration in Thompson Nicola Cariboo



Care



Empower



Engage

Sylix Okanagan Flood Risk Assessment



Lead



Act



Empower



Sustain



Respect



Engage

Heat Response in City of Vancouver



Lead



Care



Act



Include



Engage

Grand Forks and the Boundary Region Flood Response



Lead



Care



Engage

Heat Response in Village of Ashcroft



Lead



Empower



Engage

Great Bear Initiative Climate Action Network



Include



Empower



Sustain



Respect

Collaborative Emergency Management in Tsilhqot'in Nation



Lead



Act



Include



Empower



Respect



SHIFT Collaborative offers strategy, coaching, training and tools to support learning and leadership development, strategic impact and collaborative innovation for a healthier and more resilient world.

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