



CASE STUDY

Community Climate Preparedness Workshop Series

BC Regional Adaptation Collaborative

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Prepared by



Fraser Basin Council

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Cover photo: Grand Forks community resilience, 2018



Flood prep sandbagging, Kelowna, 2017

1. Introduction

This case study report focuses on the Community Climate Preparedness Workshop Series held in the winter of 2020/ 2021. These workshops were designed to assist small communities and regional districts in BC (with populations under 10,000) in taking their first steps in climate change preparedness (also known as climate change adaptation).

The case study report provides an overview of the two cohorts that participated in the workshop series, the first consisting of local governments and the second consisting of First Nation governments. In addition, the case study report describes the successes and challenges of four of the nine participating communities and how they have progressed on climate preparedness since the workshops were held.

The Community Climate Preparedness Workshops were funded by NRCan and the BC Climate Action Secretariat through the BC Regional Adaptation Collaborative program. The purpose of the workshops was to strengthen regional capacity and increase action to advance adaptation in First Nations communities and local governments. The goal of the workshops was to spur and motivate action on climate change preparedness. The workshops provided training on the basics of how to conduct a climate change adaptation engagement and planning process. Participants received an introduction to climate information and its uses and they learned about how to apply resources and tools that are typically used in an adaptation planning process. The series supported local government participants in developing a near-term action plan to advance climate preparedness in their communities, so that they had a clear path for advancing this work on the ground. Participants from First Nations communities were given an opportunity to share their reflections, insights and next steps in advancing climate preparedness in their communities and to create a map of their climate preparedness journey. The workshop series was managed by FBC and delivered by SHIFT Collaborative. Communities were eligible to participate if they were in the beginning stages of adaptation planning and implementation.

2. Limitations

Every effort was made to gather data from participating local government and First Nation representatives to inform the case study. FBC sent 19 emails in total and made 14 phone calls to reach out and recruit workshop participants for the case study and to follow up as needed. In addition, FBC offered a cash incentive of \$150 to First Nation representatives to participate in the case study. However, staff turnover, internal reassignments, staff leaves of absence and First Nation community and organization capacity constraints meant that a number of workshop participants were not available to provide detailed feedback on the progress of the communities they represented. The original intent was to gather feedback from five of the nine participating communities; however, we were unfortunately able to gather feedback from only four community representatives.

3. Overview of Climate Change Impacts in BC

British Columbia has been facing unprecedented effects from global climate change for the past two decades. These effects are accelerating and creating risks to cities, regions, First Nations communities, natural resources and ecosystems in BC.

The hazards associated with climate change are compounding and having cascading effects on economic sectors and regions. For example, climate change has resulted in warmer temperatures in BC during all four seasons (Gifford et al., 2022; Ministry of Environment and Climate Change Strategy, 2019). The frequency of extreme heat events has also increased (see Appendix D). As a result, increased wildfire risk has the potential to significantly alter ecosystems and impact infrastructure and health (Gifford et al., 2022).

Changes in annual seasonal precipitation include longer summer droughts, decreased snowpack, glacier mass loss and longer-term water shortages (Ministry of Environment and Climate Change Strategy, 2019; BC Ministry of Environment, 2016; Gifford et al., 2022).

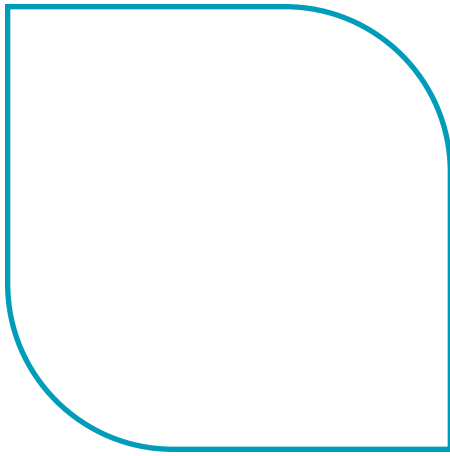
The increased frequency of atmospheric river events has resulted in extreme precipitation, which has led to flooding, landslides and sediment issues. It has also led to pollutant-loading in drinking water reservoirs and aquatic ecosystems (Gifford et al., 2022).

Furthermore, climate change has caused significant changes to ocean conditions in BC (Gifford et al., 2022). These include stronger storm surges, rising sea levels and increased acidification (Gifford et al., 2022; Ministry of Environment and Climate Change Strategy, 2019).

Changes in forest conditions and in plant and animal distributions in BC (Government of BC, n.d) are impacting traditional food harvesting in Indigenous communities. Traditional food harvesting plays an important role in cultural identity and social cohesion (Gifford et al., 2022).

Additional impacts include an increase in invasive species, increased incidence of water-borne disease, severe riverine flooding, urban flooding and saltwater intrusion, and reductions in ecosystem connectivity (Gifford et al., 2022).

Local governments that participated in the workshop have also experienced climate change impacts. For instance, the RDKB Climate Action Plan (2022) states that over 3,200 residents were issued evacuation orders to leave their homes for more than 10 days across the Boundary region, and that over 450 properties were damaged due to flooding in 2018. Reports indicated that businesses in the RDKB lost estimated revenue of \$26 million, and the direct response and recovery costs associated with river flooding were over \$20 million (RDKB Climate Action Plan, 2022). The RDKB has projected that the cost of preparing for future climate change events could be as high as \$56 million (RDKB Climate Action Plan, 2022).



Wildfire, Hwy 97 near Peachland, 2018

4. Community Climate Preparedness Workshop Participants

The Community Climate Preparedness Workshops were first introduced as a pilot project. They were subsequently delivered for two cohorts of representatives from local governments. The District of Summerland agreed to participate in the pilot to share its feedback on the workshop series.

Cohort One participants comprised five local governments with populations under 10,000, with each local government having two to six representatives. Participating local governments included the: Regional District of Central Okanagan (RDCO), City of Mackenzie, Regional District of Kootenay Boundary (RDKB), City of Revelstoke and City of Warfield. The District of Summerland joined this cohort for the final cross-community sharing session. Workshops were held between November 2020 and January 2021. Participants in Cohort One worked on developing near-term action plans for advancing climate preparedness based on community readiness and needs.

Cohort Two participants comprised four First Nations and First Nations organizations, including the Lower Nicola Indian Band (LNIB), Ka:'yu:'k't'h'/Che:k:tlles7et'h' First Nation, K'omoks First Nation and the First Nations Health Authority (FNHA) We All Take Care of the Harvest (WATCH) Program and partner communities. Workshops were held between February and March 2021 and included one representative from each First Nation community.

5. Case Studies

a) Overview

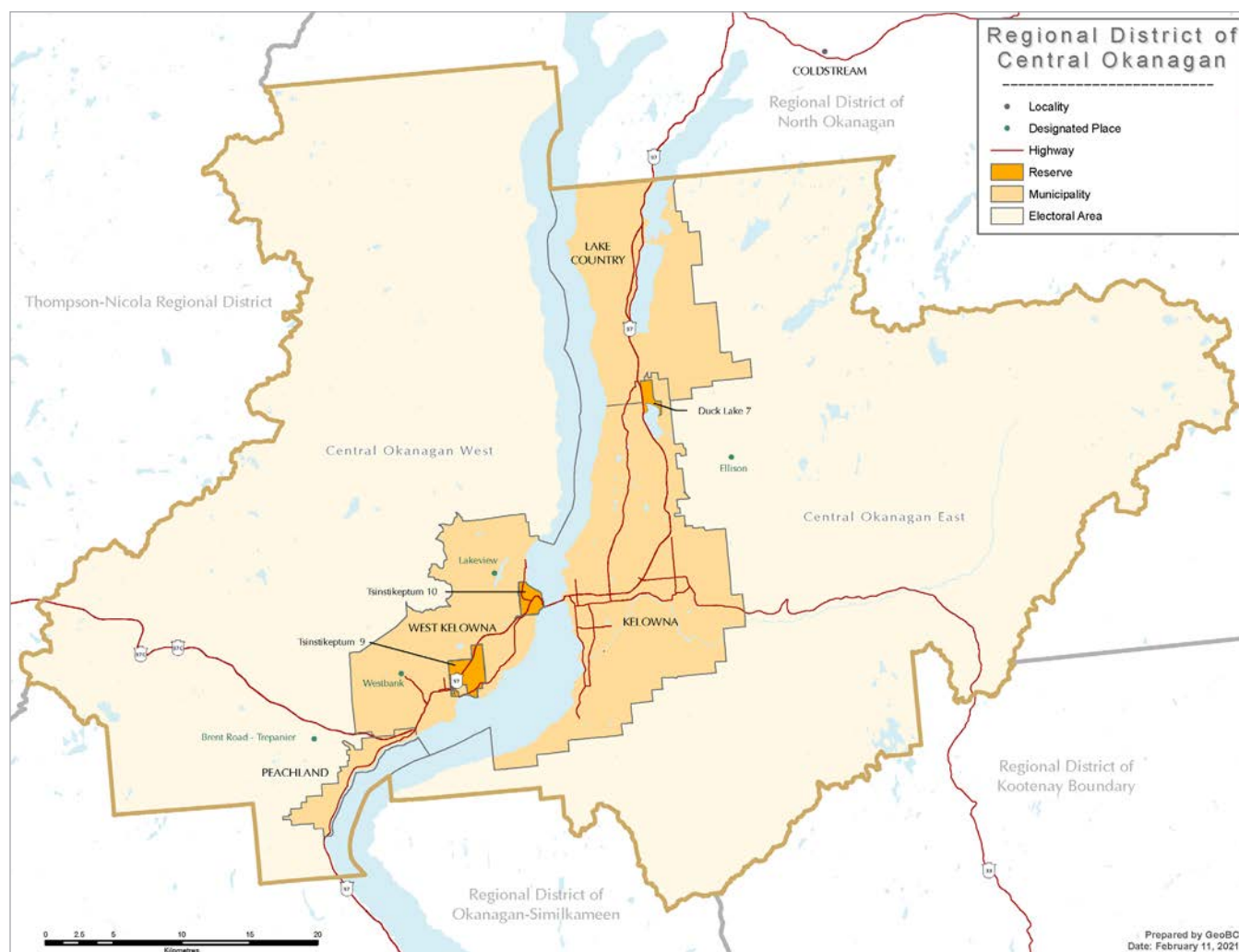
The case study report describes the challenges and lessons learned, captured as community stories, from four participating communities. These include three local governments from Cohort One (RDCO, RDKB and City of Revelstoke), and the LNIB from Cohort Two. The Cohort One local government participants were selected for the case study report based on feedback from SHIFT Collaborative.

b) Community Profiles

i. Regional District of Central Okanagan

The Regional District of Central Okanagan covers a total land area of 2902.45 km² (Statistics Canada, 2021). The RDCO has approximately 222,162 (2021) residents (Statistics Canada, 2021), making it the third most populous economic region in BC after the Lower Mainland and Southwest and the Vancouver Island and Coast regions. Agriculture, the service sector, logging, technology and manufacturing make up its diverse economy. The region has remarkable geographical diversity of ecosystems that consist of desert, mountains, lakes and rivers. Relationships, collaboration, sustainable communities, regional perspectives and the natural environment are core values of the RDCO (RDCO Community Climate Preparedness Workshop Series, 2021).

Figure 1: Regional District of Central Okanagan / Source: Government of British Columbia, 2021

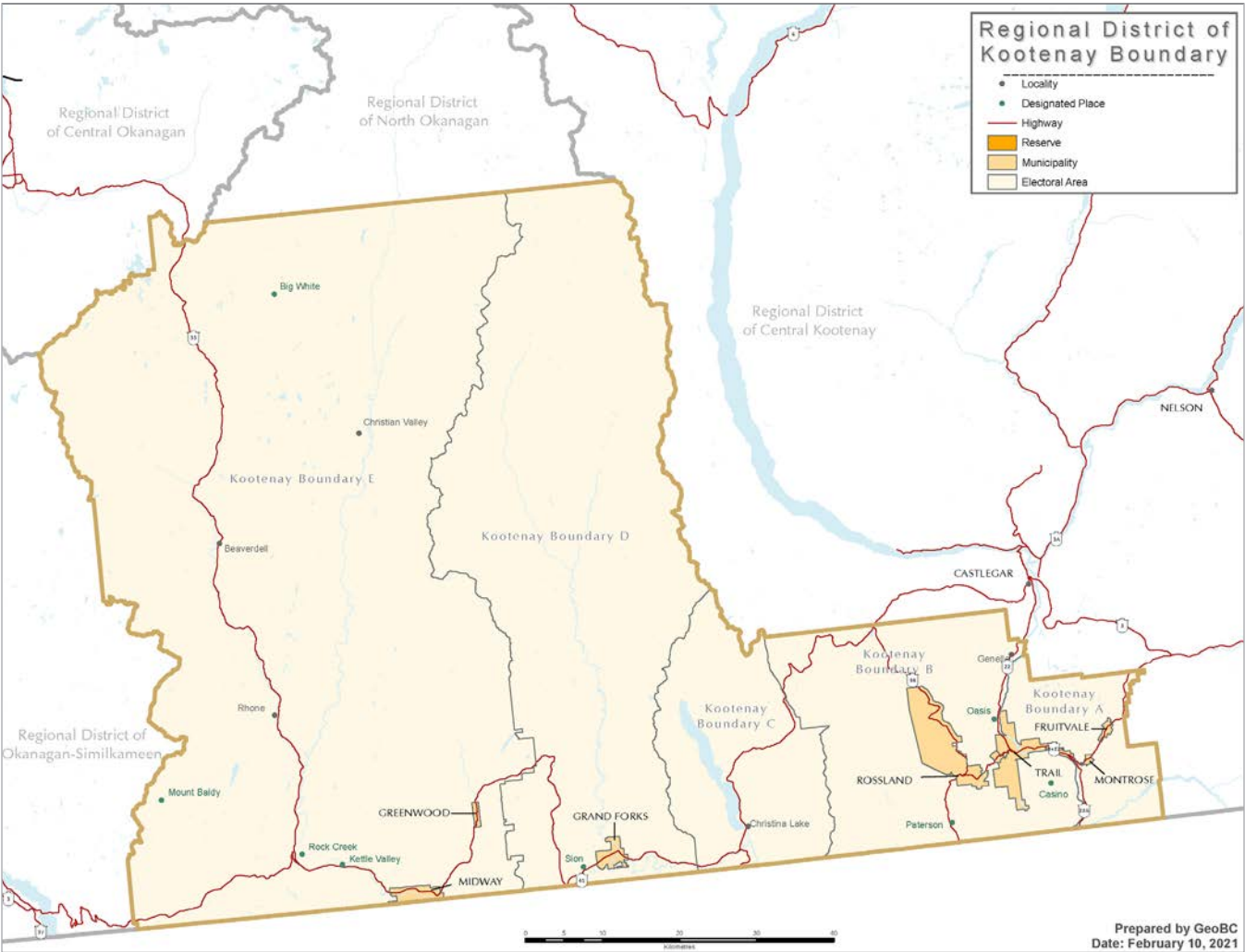


From the workshop series, it is projected that the RDCO will experience 56 more days per year in which temperatures exceed 40°C by 2050. The Regional District of Central Okanagan is also projected to have winter temperatures up to 16°C warmer than usual by 2050 and longer growing seasons of 9 months by 2050 (RDCO Community Climate Preparedness Workshop Series, 2021). The Regional District of Central Okanagan forecasts a change in precipitation, including less rain in the summer (14% less by 2050) and more rain in the spring (13% more by 2050) (RDCO Community Climate Preparedness Workshop Series, 2021). The Regional District of Central Okanagan has experienced high-level impacts of climate change, including increased heat stress; increased risk to vulnerable populations; increased risk of extreme weather, flooding and wildfires; and shifting ecosystems (RDCO Community Climate Preparedness Workshop Series, 2021).

ii. Regional District of Kootenay Boundary

The Regional District of Kootenay Boundary has a total population of approximately 33,152 (2021) residents (Statistics Canada, 2022). The region covers a total land area of 8,080.76 km² (Statistics Canada, 2022). Coal production, mining, logging and tourism are the major economic contributors to the local economy of the RDKB. The natural environment defines and guides the RDKB. The community is diverse and tight knit. Outdoor recreation is a key feature of the community, and agriculture is a livelihood for many (RDKB Community Climate Preparedness Workshop Series, 2021). The Regional District continues to strengthen cooperation and communication at many levels, and it is working towards strength and resilience (RDKB Community Climate Preparedness Workshop Series, 2021). Climate change has made the weather in the RDKB less predictable, and a series of unprecedented natural disasters took place in the region during 2020 and 2021 (RDKB Community Climate Preparedness Workshop Series, 2021).

Figure 2: Regional District of Kootenay Boundary / Source: Government of British Columbia, 2021

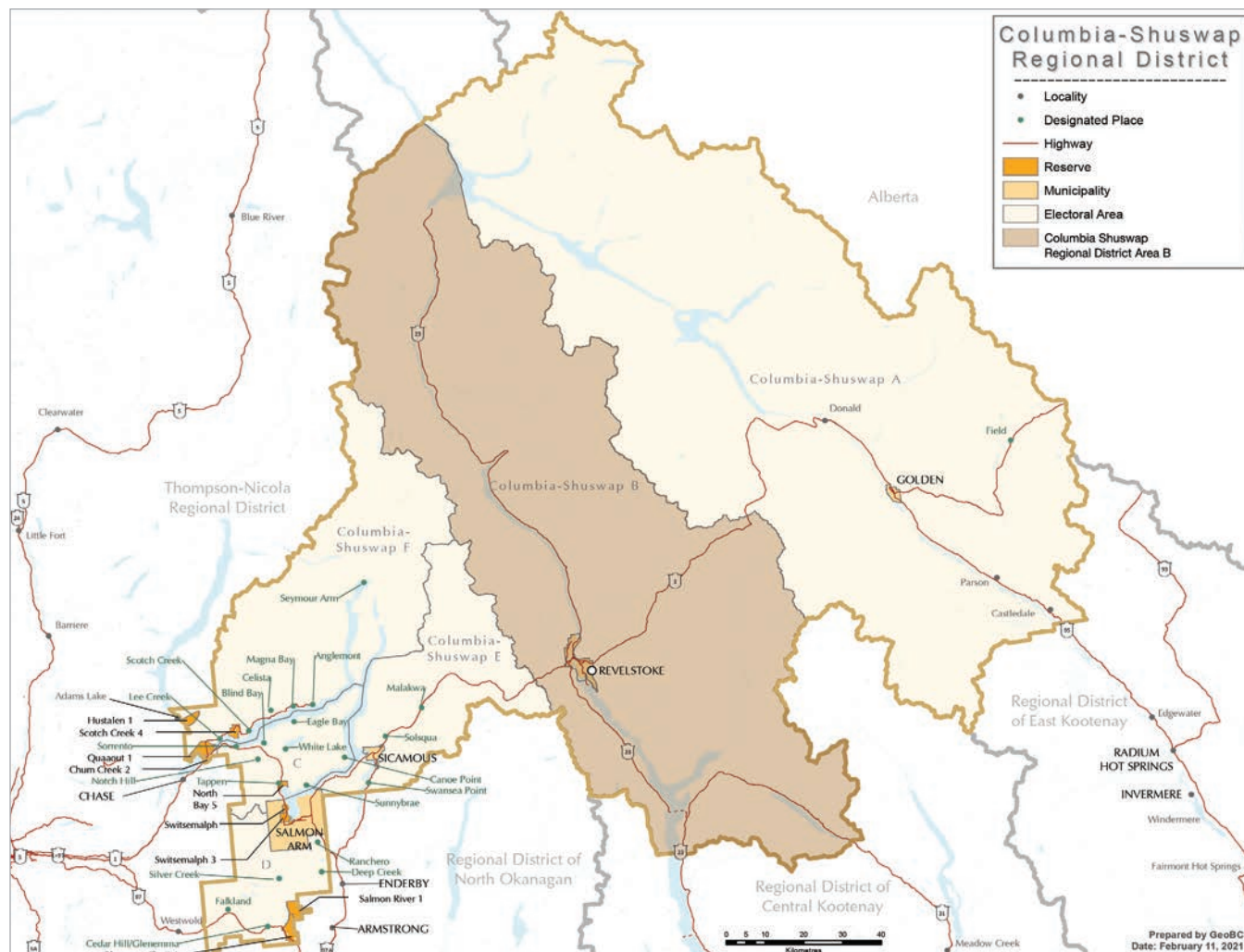


Annual temperatures in the RDKB are projected to increase by 3.2°C by 2050. Precipitation is projected to change to a greater number of high-intensity events, which may lead to a less consistent winter snowpack and fewer reliable water sources for farmers (RDKB Community Climate Preparedness Workshop Series, 2021). The threat of wildfire is projected to increase due to hotter and drier summers (RDKB Community Climate Preparedness Workshop Series, 2021). Other future impacts of climate change in the RDKB include higher and more intense flood levels, which endanger houses and roads in the floodplain and create erosion that can damage properties (RDKB Community Climate Preparedness Workshop Series, 2021). Bridge or road washouts during flood events could potentially lead to loss of access or isolation for communities in the RDKB (RDKB Community Climate Preparedness Workshop Series, 2021).

iii. City of Revelstoke

The City of Revelstoke falls within the Columbia Shuswap Regional District and encompasses 12.30 km² (Statistics Canada, 2022). It is situated between the Selkirk and Monashee mountain ranges. The Trans-Canada Highway and the Canadian Pacific Railway pass through the community. According to Statistics Canada (2022), the population of the City of Revelstoke is approximately 7,709 (2021). Revelstoke is known for its beautiful mountainous landscapes, and for being a close-knit, adventurous, self-reliant and creative community. The City is resilient and strong because it has an engaged, welcoming community where people look out for their neighbors (City of Revelstoke Community Climate Preparedness Workshop Series, 2021). Values and features that are important to protect and enhance in Revelstoke include mountains, rivers, snow, heritage and the feeling of a small town (City of Revelstoke Community Climate Preparedness Workshop Series, 2021).

Figure 3: City of Revelstoke within Columbia Shuswap Regional District Area B / Source: Province of British Columbia, 2021

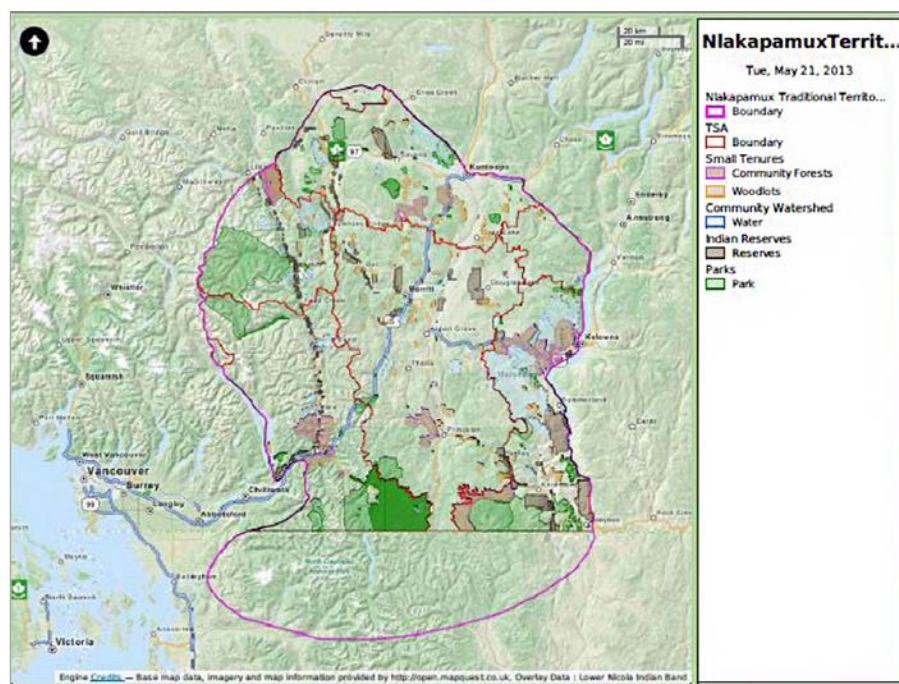


The City of Revelstoke has been experiencing impacts of climate change, including higher altitude freezing levels and increased precipitation that result in loose, wet avalanches (City of Revelstoke Community Climate Preparedness Workshop Series, 2021). Some major anticipated impacts of climate change on the economic and community development sectors of the City include lower snowpack, which impacts the winter tourism economy, reduced housing pressures, a decrease in seasonal population, and a decrease in pressure on current infrastructure (City of Revelstoke Community Climate Preparedness Workshop Series, 2021). Future impacts on the natural environment, parks and street trees include heavier snow load on trees, freezing rain events, longer seasonal (spring/summer/fall) use of parks, and potential backcountry closures (City of Revelstoke Community Climate Preparedness Workshop Series, 2021). Climate change could also potentially lead to increased road closures; increased freeze/thaw cycles impacting snow plowing, storm drainage and road maintenance; increased extreme wind events; and heavy snow loads (City of Revelstoke Community Climate Preparedness Workshop Series, 2021).

iv. Lower Nicola Indian Band

The Lower Nicola Indian Band (LNIB), or Nleʔkepmxc Nation (pronounced Ng-khla-kap-muhx), is one of the Interior Salish first peoples in the Southern interior of British Columbia, along with the Secwépemc (Shuswap), Lillooet, and Okanagan. The word “Nleʔkepmxc” means “People of the Canyon” (LNIB Community Profile, 2015). The community is at Shulus, six kilometres west of Merritt. The LNIB has a total population of approximately 980 people (2021) (Statistics Canada, 2022).

Figure 4: Community of Lower Nicola Indian Band within Nlakapamux Territory / Source: Lower Nicola Indian Band Community Profile, 2015



c) Summary of Findings

The following were the key findings that emerged from the data collected from three Cohort One communities (RDCO, RDKB and City of Revelstoke) via multiple phone calls, Zoom interviews and email exchanges to inform the case study report. A key success of the Community Climate Preparedness Workshop series shared by all three local government representatives was that the workshops provided an excellent opportunity for participants to connect, develop relationships, share information and hold conversations on climate action and resilience planning.

In addition, the program increased knowledge and understanding of climate adaptation concepts among the staff of three regional districts and municipalities contacted for the case study report. The workshop series also helped two participating local governments to generate ideas and increase momentum towards developing community climate adaptation plans.

The workshop series led to one local government completing a climate projections report, which assisted their community in gaining a better understanding of future climate impacts. The climate projections report informed their decisions on the kind of assets they need to purchase to build climate resilience in their community.

The program helped one local government to move towards their Low Carbon Resilience Plan, and to focus on incorporating climate action into asset renewal and management.

The program also helped one local government understand climate risk management, risk levels, prioritization of risks and identification of actions to address risks.

Successes from the workshop series shared by the three local governments included learning what other communities are doing, sharing lessons learned and developing connections with other communities. The program offered an opportunity for communities to connect on projects and to learn about risks and impacts.

Factors that helped one local government take the first steps in advancing climate adaptation planning included an increased public understanding of climate change mitigation and adaptation through public education and the ability to access substantial funding from the federal and provincial governments.



A consistent message that came through from all three interviewees was the need to build and strengthen the capacity and expertise of local government staff around climate preparedness. Based on input received, the three local governments that participated in the case study are at the planning stages of advancing climate adaptation. A constraint faced by these local governments is a lack of staffing capacity. More staff need to be recruited to work in specialized roles in climate adaptation planning at the local level to strengthen and accelerate climate adaptation initiatives.

In addition, project management training is important to increase the skills and knowledge of less experienced staff to advance climate adaptation project implementation in smaller communities.

Another lesson that can be drawn from the program is that local governments and communities should be supported in establishing peer networks they can reach out to for help when needed. It is crucial for different communities to learn from each other about the climate projects they are each engaged in, to foster collaboration on the implementation of climate adaptation initiatives, and to learn about creative ways to tackle climate change in their communities.

A brief conversation with another workshop participant over the phone indicated that the community was then in the planning stage of advancing climate adaptation actions and expected to discuss the approach, the engagement process and how to prioritize actions to progress climate adaptation in their community.



Grand Forks flood recovery, 2018

6. Community Impacts from Extreme Climate Events (2021/2022)

The Regional District of Kootenay Boundary, Regional District of Central Okanagan and City of Revelstoke experienced prolonged impacts of climate change in 2021 and 2022. These impacts included record-setting wildfires, flooding, extreme heat waves, drought and storm events (RDKB Climate Action Plan, 2022).

In summer 2021, the RDKB experienced level 5 drought conditions, which is the highest drought level classification in the province (RDKB Climate Action Plan, 2022). In April 2021, three homes in the Fife Road area on the east side of Christina Lake were damaged due to river flooding (RDKB Emergency Management, 2021).

Because of wildfires, the RDKB issued an evacuation order for West Boundary that affected 72 people in August 2021 (RDKB Emergency Management, 2021). Similarly, in summer 2021, the RDKB recorded the Bear Creek Wildfire that affected nine people and the Nk'Mip Creek wildfire near Mount Baldy that burned 20,066 hectares of land and 123 addresses of Electoral Area E/West Boundary (RDKB Emergency Management, 2021). In summer 2022, the RDKB also recorded the Gilpin Grasslands Provincial Park and West Kettle River wildfires.



Meritt area flood damage, 2021



Climate change is changing the landscape and increasing the frequency and intensity of natural hazards in the RDCO. Central Okanagan Emergency Operations reported three main wildfire events in the RDCO in the summer of 2021. The Mount Law wildfire burned 976 hectares and put 500 West Kelowna properties on evacuation order or alert (RDCO Emergency Operations, 2021). The White Rock Lake wildfire destroyed homes and buildings on 75 properties and put an estimated 3000 people from more than 1300 properties under evacuation order (RDCO Emergency Operations, 2021). The Regional District of Central Okanagan estimated that the White Rock Lake wildfire contributed to insurance payments of \$77 million (RDCO Emergency Operations, 2021). The Brenda Creek wildfire also threatened the only Hydro distribution line serving approximately 60,000 people in the RDCO (RDCO Emergency Operations, 2021). In 2022, Central Okanagan Emergency Operations reported the Jack Free wildfire and Mission Creek flooding, which affected road infrastructure and properties (RDCO Emergency Operations, 2022). A week-long heat wave with temperatures between 37°C and 42°C occurred in summer 2021, which put seniors, children and people with underlying health conditions at risk of heat-related illness (RDCO Emergency Operations, 2021)

The November 2021 flooding shut down the Trans-Canada Highway and severely limited travel and transportation west of the City of Revelstoke (Potenteau, 2021). Wildfires near the City of Revelstoke in summer 2021 contributed to hazardous air quality, and in summer 2022, the South Cranberry Creek fire, the Three Valley Lake wildfire and the Wap Creek wildfire also contributed to smoky conditions in the City of Revelstoke (Potenteau, 2022). In summer 2021, the heat dome resulted in one fatality in or around Revelstoke (Revelstoke Mountaineer staff, 2022).

The Lower Nicola Indian Band has experienced severe flooding, wildfires and evacuations due to climate change. In the summer of 2021, the LNIB issued an evacuation order/ alert for many addresses due to the wildfire in Speous IR No. 8, Pipsuel IR No. 3 and Nicola Mameet IR No. 1 (Lower Nicola Indian Band, 2021). In the fall of 2021, many residents living along the Nicola corridor and the Nicola River, including LNIB residents, were displaced because of the intense atmospheric river that dumped heavy rain over a span of two days in the region (MacDonald and Moore, 2022).

7. Reflection and Recommendations on Climate Adaptation Capacity Building with Small Local Governments

While staff turnover, internal reassignments and general capacity constraints in small communities are a significant barrier to the ability of communities to implement climate adaptation measures, as found in this case study, COVID-19 and the 2021/ 2022 extreme climate events placed additional strains on local government and First Nation staff, further hampering progress on climate adaptation.

As a result of needing to prioritize immediate challenges, communities are in the planning phase and have not yet been able to implement climate adaptation measures as of the writing of this report. Recommendations to strengthen regional capacity and increase action to advance adaptation planning and implementation in First Nation and local governments include these:

- Explore avenues to increase staff capacity in vulnerable small communities, for example, by sourcing sustained funding for staff positions.
- Climate adaptation workshops should continue to be geared towards peer learning so that smaller local government staff can learn from larger local governments about climate adaptation best practices.
- Consider workshops that target senior level staff to complement workshops for working level staff as a way to engender a broad understanding of climate adaptation.
- Create a network of elected officials related to climate adaptation, and plan semi-annual or annual training for elected officials and senior staff. As an example, the BC Municipal Climate Leadership Council (BCMCLC) is composed of mayors and councillors from across BC representing communities — big and small, north and south, east and west — who are committed to climate action. Since September 2010, BCMCLC members have come together to volunteer to assist locally elected officials to move climate action forward.
- Create topic-specific peer learning networks and regional learning “hubs” that can help support workshop participants in their capacity-building initiatives.

The Province of BC is looking to establish peer learning networks and regional staff network hubs to accelerate implementation of BC’s recently released Climate Preparedness and Adaptation Strategy. Overall capacity can be increased by establishing peer-to-peer learning/ education networks on specific community resilience and climate adaptation topics for local government and Modern Treaty Nation staff where staff with expertise can share their knowledge and experience with others.

Regional staff network hubs to support local government collaboration and knowledge-sharing can accelerate regional implementation of climate adaptation priorities. It’s been noted that “bound together by a shared focus on place, Regional Climate Collaboratives are harnessing the power of networks to build resilience to climate impacts and...to reduce the emissions driving those impacts.” (Institute for Sustainable Communities, 2019). In addition, regional hubs can facilitate ongoing dialogue for local governments to share information, resources and examples of initiatives they have implemented. This approach is working well in the Northeast Climate Resilience Network in BC, hosted by the Fraser Basin Council.





8. References

Government of British Columbia (2021). Climate Preparedness and Adaptation Strategy, Draft Strategy and Phase 1 Actions for 2021-2022. Accessible at: [climate-change/adaptation/cpas_2021.pdf](#)

Gifford, R., Brown, C., Baron, C., Clement, D., Melnychuk, N., Nelson, H., Sales, L. and Spittlehouse, D. (2022). British Columbia Chapter in Canada in a Changing Climate: Regional Perspectives Report, (ed.) F.J. Warren, N. Lulham and D.S. Lemmen; Government of Canada, Ottawa, Ontario. Accessible at: [British-Columbia-Regional-Perspective-Report-.pdf \(changingclimate.ca\)](#)

Government of British Columbia, Ministry of Environment and Climate Change Strategy (2019). Preliminary Strategic Climate Risk Assessment for British Columbia. Report prepared for the Government of British Columbia, Victoria, BC. Accessible at: [Full Report - Strategic Climate Risk Assessment for BC \(gov.bc.ca\)](#)

Statistics Canada (2022). Census Profile 2021 Census of Population. Retrieved September 15, 2022, from Statistics Canada: [Census Profile, 2021 Census of Population \(statcan.gc.ca\)](#)

Government of British Columbia, Ministry of Environment (2016). Indicators of climate change for British Columbia 2016 update. National Library of Canada (Vol. 4). Accessible at: [climatechangeindicators-13sept2016_final.pdf \(gov.bc.ca\)](#)

Blackfeet Nation (2018). Blackfeet Climate Change Adaptation Plan. Accessible at: [BLACKFEET CLIMATE CHANGE ADAPTATION PLAN \(wordpress.com\)](#)

Government of British Columbia (n.d). Impacts of climate change. Retrieved August 2022, from [Climate preparedness and adaptation - Province of British Columbia \(gov.bc.ca\)](#)

RDKB Emergency Management (2021). Boundary Region drought condition update. Retrieved December 21 2022, from Regional District of Kootenay Boundary: [Boundary Region Drought Conditions Update | Boundary Watershed News & Events | Regional District of Kootenay Boundary - Join the Conversation \(rdkb.com\)](#)

RDKB Climate Action Plan (2022). The Regional District of Kootenay Boundary Climate Action Plan September 2022. Accessible at: [RDKB-Climate-Action-Plan-2022.pdf](#)

RDCO Emergence Operations (2021). Press Releases. Retrieved December 20 2022 from the Central Okanagan Emergency Operations: [News releases | Page 3 | Central Okanagan Emergency Operations \(cordemergency.ca\)](#)

RDCO Emergency Operations (2022). Press Releases. Retrieved December 20 2022 from the Central Okanagan Emergency Operations: [News releases | Central Okanagan Emergency Operations \(cordemergency.ca\)](#)

Potentau, D. (2021). 2021 year in review: summer of heat, wildfires, evacuation alerts, orders in BC Interior. Retrieved December 20 2022 from Global News: [2021 year in review: Summer of heat, wildfires, evacuation alerts, orders in B.C. Interior | Globalnews.ca](#)

Potentau, D. (2022). Several new wildfires burning in large area around Revelstoke. Retrieved December 18 2022 from Global News: [Several new wildfires burning in large area around Revelstoke | Globalnews.ca](#)

MacDonald, N. and Moore, T. (2022). The highway that disappeared. Retrieved December 16 from the Globe and Mail: The highway that disappeared: [How the B.C. flood changed lives forever along Highway 8 - The Globe and Mail](#)

Revelstoke Mountaineer Staff (2022). Revelstoke Community Response Network has new heat wave response initiative. Retrieved December 19 2022 from Revelstoke Mountaineer: [Revelstoke Community Response Network has new heat wave response initiative - Revelstoke Mountaineer](#)

Lower Nicola Indian Band (2021). Evacuation Alert for Lower Nicola Indian Band Speous IR No.8 Pipsuel IR No.3 Nicola Mameet IR No.1. Available at: [Evacuation-Alert-Nicola-Speous-Pipsuel-Mameet-IR-1-August-30-2021.pdf \(lnib.net\)](#)

Lower Nicola Indian Band (2015). Lower Nicola Indian Band Community Profile 2015. Pp.1-9. Available at: <https://www.lnib.net/wp-content/uploads/2015/07/LNIB-Community-Profile-Oct-2015.pdf>

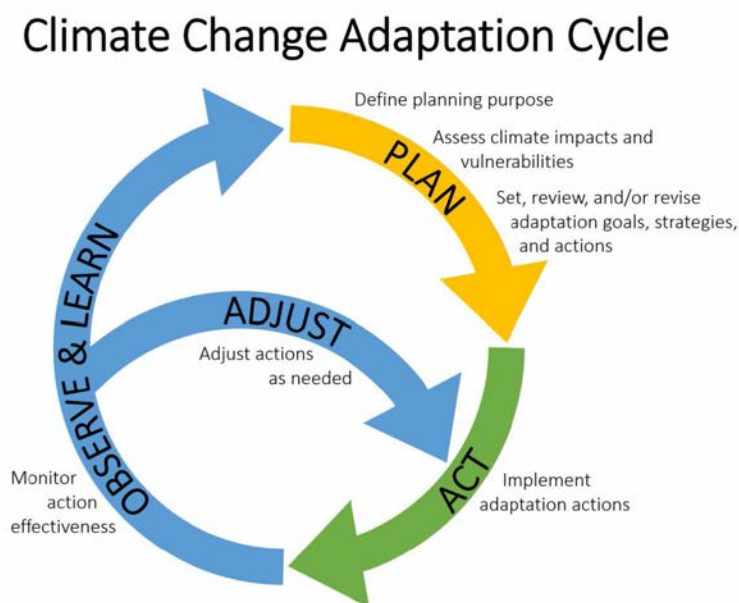
APPENDICES

Appendix A: Cohort One Workshop Series

The workshop series consisted of four virtual sessions and provided training on the basics of how to conduct climate change adaptation engagement and planning processes. The sessions also provided information about adaptation funding opportunities and about hiring consultants to carry out community climate change resilience work. Staff were introduced to vulnerability/risk assessment approaches and were provided with guidance on how to conduct qualitative vulnerability/risk assessments with stakeholders. Participants were also introduced to the concept of “adaptation pathways.”

Figure 1: Climate Change Adaptation Cycle

Because of COVID-19, workshops were delivered virtually instead of in person. The series was composed of an introductory call, three three-hour workshop sessions (except the pilot series, which were two-hour sessions), and a final three-hour presentation session where participants shared their learnings and action items with the group. The virtual workshops were designed to provide opportunities for interpersonal connections and encouraged peer learning by including multiple communities in each session. Participants had opportunities to network with other communities and other people who could help advance community climate change preparedness initiatives.



Source: Blackfeet Climate Change Adaptation Plan, 2018

Session 1: Introductory session on climate change projections and impacts

This session oriented and engaged staff on local climate projections and impacts and broad climate change adaptation information. It also made connections between COVID-19 recovery and building community resilience to climate change and other stressors.

Session 2: Training on future scenario framing

Staff were led into a discussion surrounding what they wanted their community to look like in the future. Particular importance was given to what the community valued and wanted to preserve.

Session 3: Assessing priorities and action/learning cycles

Using the discussion results from the previous session around the most important community assets, this session looked at approaches for prioritizing impacts and actions and the elements of a risk-based approach.

Final Session: Cross-community sharing

In the final session, staff shared their insights and discussed their action plans for advancing climate preparedness in their communities in small groups. This approach was effective in allowing the participants to problem solve together and learn from one another.

Community Climate Preparedness Series: An Overview

DATE	SESSION	OBJECTIVES	IN-SESSION ACTIVITIES
Week of Nov 16th (1 hour)	Introductory Call	<ul style="list-style-type: none">• Participants are familiar with early steps in building capacity for climate preparedness• Participants are familiar with the approach of this course and technology/tools we will use	<ul style="list-style-type: none">• Discuss starting points & intentions for the series• Zoom & Google Doc orientation
Thursday, Nov 26th, 9:30am-12:30pm	Session 1: The art and science of working with climate data	<ul style="list-style-type: none">• Participants are familiar with types of climate information available, where to find it and have gathered some data for their community or region• Participants are beginning to develop narrative versions of climate data to inform planning, engagement and awareness building	<ul style="list-style-type: none">• Brainstorm climate & weather changes you've seen• Gather climate data for your community• Develop climate narratives
Thursday, Dec 3rd, 9:30am-12:30pm	Session 2: Community strengths, values, and impacts	<ul style="list-style-type: none">• Participants recognize the importance of community strengths & values in the climate preparedness process• Participants are familiar with importance of engagement/collaborative approach to climate preparedness• Participants understand how to take the first step of translating climate information into impacts for the community	<ul style="list-style-type: none">• Identify success factors for collaborative work• Generate categories of "community elements" and use client data/narratives to identify impacts to these elements• Discuss how to use climate info in your work
Thursday, Jan 7th, 9:30am-12:30pm	Session 3: Assessing priorities and implementing action/learning cycles	<ul style="list-style-type: none">• Participants are familiar with risk- and-values-based approaches to prioritizing impacts and actions• Participants understand climate preparedness as an ongoing, iterative, learning process• Participants are oriented to the action planning phase, with guidance on types of criteria to consider when choosing actions	<ul style="list-style-type: none">• Using impact statements derived from Session 2 brainstorm, try out a climate risk assessment screening tool• Identify design/evaluation criteria to apply to adaptation options

Appendix B: Cohort Two Workshop Series

The Cohort Two workshop series comprised four virtual sessions. The workshop provided training on how First Nations communities can build climate resilience. Participants in the workshop series were provided with information about climate impacts in communities, languages of climate change, and how they can access climate projection data. The sessions also introduced participants to different approaches to assessing and building climate resilience. The workshop provided an opportunity for cross-community learning and sharing of climate stories.

Session 1: Introductory session on community impacts and community resilience

The session introduced participants to potential climate impacts on communities, land and culture. It also provided information about community strengths and values and oriented participants on how to build resilience in the adaptation process. The session engaged participants on how they could work with community members, leadership and other parties to document changes that have been witnessed in their communities. The session offered an opportunity for participants to share examples from participatory hazard and asset mapping and introduced participants to the concepts of risks, hazards, adaptative capacity and resilience. Participants were invited to share stories of resilience and successful collaboration.

Session 2: Training on “working with climate information”

The session introduced participants to different climate languages, western climate science and Indigenous knowledge systems, and how they can work together. The session oriented participants to climate data and how they might use it. In addition, the session gave participants an opportunity to learn from each other about impacts and covered how community-based monitoring can be used to monitor climate change. The session also provided information on how community resources, funding and approaches to community-based climate monitoring can be accessed or strengthened to support climate preparedness work.

Session 3: Sharing community stories

Based on the discussions from the previous sessions, this session focused on what resonated for each community, and what possible futures each participant saw when thinking about climate change and adaptation.

Session 4: Climate preparedness journey map

The final session facilitated group learning by offering an opportunity for participants to share their reflections, insights and next steps in advancing climate preparedness in their communities and to create a map of their climate preparedness journey.

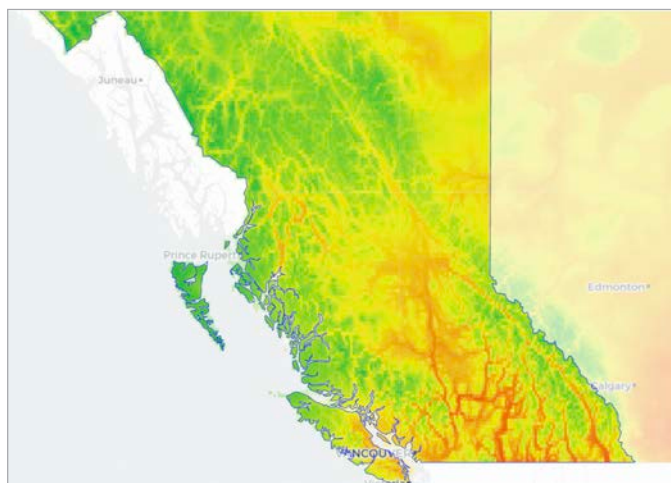
Appendix C: Call Logs

DATE	LOCAL GOVERNMENT OR FIRST NATION COMMUNITY	EMAIL / PHONE CALL
July 5	City of Revelstoke	Email
July 15	City of Revelstoke	Email
July 27	City of Revelstoke	Email
28-Jul	City of Revelstoke	Email
02-Aug	City of Revelstoke	Phone
08-Aug	City of Revelstoke	Phone
05-Jul	RDKB	Email

DATE	LOCAL GOVERNMENT OR FIRST NATION COMMUNITY	EMAIL / PHONE CALL
11-Jul	RDKB	Email
19-Jul	RDKB	Phone
27-Jul	RDKB	Phone
28-Jul	RDKB	Email
29-Jul	RDKB	Email
08-Aug	RDKB	Email
18-Aug	RDKB	Email
05-Jul	RDCO	Email
14-Jul	RDCO	Phone
26-Jul	RDCO	Phone
27-Jul	RDCO	Phone
28-Jul	RDCO	Phone
02-Aug	RDCO	Phone
03-Aug	RDCO	Email
10-Aug	RDCO	Email
07-Sep	RDCO	Email
11-Jul	LNIB	Email
15-Jul	LNIB	Phone
19-Jul	LNIB	Email
25-Jul	LNIB	Email
11-Aug	LNIB	Email
31-Aug	LNIB	Phone
17-Nov	LNIB	Phone
18-Nov	LNIB	Phone
11-Jul	WATCH Communities and Partners	Email
27-Jul	WATCH	Phone

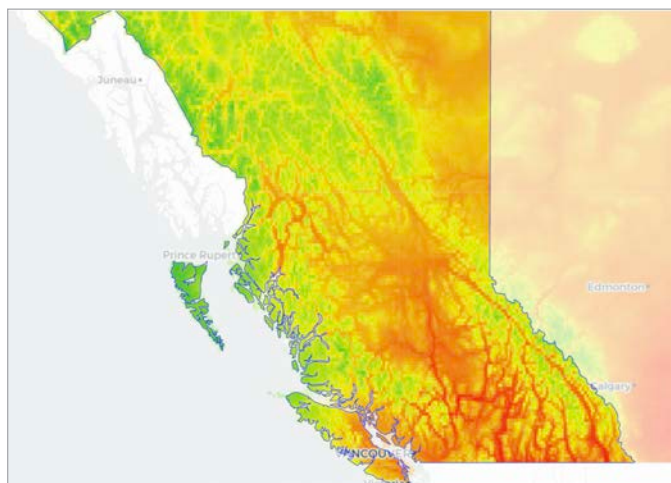
Appendix D: Regional Maps of BC

i. Hottest Day – Annual (1981-2010); scenario RCP 8.5

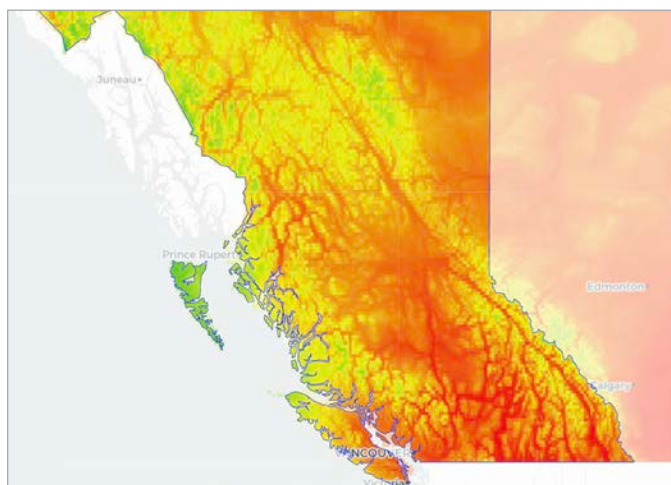


40°C

ii. Hottest Day – Annual (2011-2040); scenario RCP 8.5



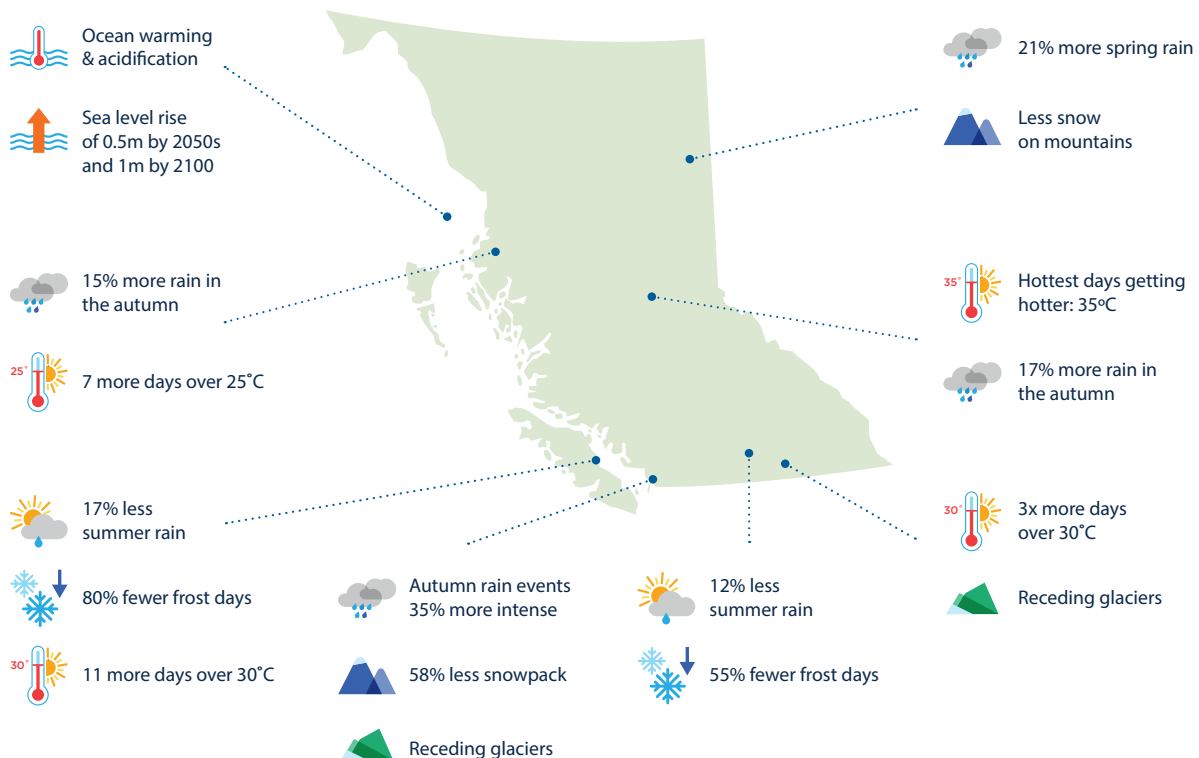
iii. Hottest Day – Annual (2041-2070); scenario RCP 8.5



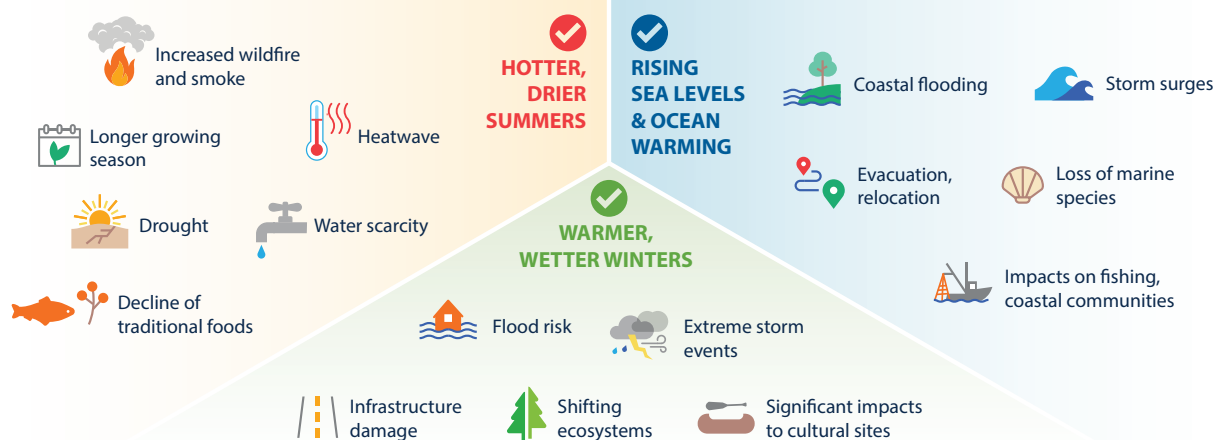
0°C

Source: Chapter 5 — Regional Perspectives Report (changingclimate.ca)

CLIMATE PROJECTIONS & IMPACTS IN B.C.



These changes will have important impacts for our communities, economy, health and wellbeing:



Source: Climate Preparedness and Adaptation Strategy (2021-2022), CleanBC, Province of British Columbia



Prepared by



Fraser Basin Council

Prepared for



Natural Resources
Canada

Ressources naturelles
Canada