



Developing a Climate Change Strategy for Resilient Communities under the Framework Agreement

Change tool



Welcome





Mute Devices



Recorded Session



Closed Caption



Presentation &
Materials



Questions &
Comments

slido

slido.com
#000 000

AGENDA & OBJECTIVES



DAY 1 – WED, June 8th 2022

8:45 AM PDT Zoom Opens

9:00 AM **Welcoming & Overview**

9:10 AM **1.1 Prevention & Adaptation**

- 40 min
Moderated by RC, Cory Kozmik
- Magnetawan First Nation - Samantha Noganosh
 - Mistawasis Nehiyawak - Anthony Johnston
 - T'Sou-ke First Nation - Chief Gordon Planes

9:50 AM Health Break – 10 min

10:00 AM **1.2 Community Considerations**

- 60 min
- Bingwi Neyaashi Anishinaabek - Jordan Hatton
 - Ditidaht First Nation – Monty Horton
 - First Nations Financial Management Board - Mylon Ollila
 - Canadian Centre for Climate Services – Ellen Pond

11:00 AM Health Break – 10 min

11:10 AM **1.3 Infrastructure & Development**

- 40 min
Moderated by RC, Chantal Kitamura
- Westbank First Nation - Krista Derrickson
 - First Nations Financial Management Board - Mylon Ollila
 - Nbisiing Power - Christine Goulais

11:50 AM Networking & Discussion

12:00 PM End Day One

DAY 2 – THU, June 9th 2022

8:45 AM PDT Zoom Opens

9:00 AM **Welcome & Overview**

9:10 AM **2.1 Emergency Planning & Response**

- 40 min
Moderated by RC, Adam Wright
- Lac La Ronge Indian Band – Ty Roberts
 - Preparing Our Home - Lily Yumagulova & Casey Gabriel
 - T'Sou-ke First Nation - Chief Gordon Planes

9:50 AM Health Break – 10 min

10:00 AM **2.2. Community Considerations**

- 60 min
- Westbank Nation – Saige Werstuik
 - Chemawawin Cree Nation – Fabian Sinclair
 - Chippewas of the Thames First Nation – Brennan Vogel
 - Nisichawayasihk Cree Nation – Gord Dumas

11:00 AM Health Break – 10 min

11:10 AM **2.3 Food Security**

- 40 min
Moderated by RC, Stefanie Recollet
- Tzeachten First Nation - Councillor Loren Muth
 - Muskeg Lake Cree Nation - Steven Wiig
 - Chemawawin Cree Nation – Fabian Sinclair
 - Nisichawayasihk Cree Nation – Gord Dumas

11:50 AM Networking & Discussion

12:00 PM Close of Workshop

Developing a Climate Change Strategy for Resilient Communities under the Framework Agreement

Prevention & Adaptation

Moderated by:



Cory Kozmik

Environment & Enforcement Advisor



Prevention & Adaptation - Community Considerations

How Does Your Community View Climate Change Prevention & Adaptation?



Transportation & Connectivity



Community Safety, Evacuations & Displacement



Food Security & Harvesting Cycles



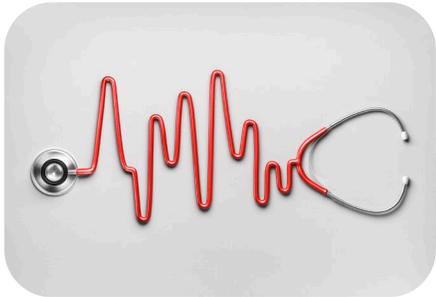
Shifting Ecosystems, Invasive Species & Species at Risk



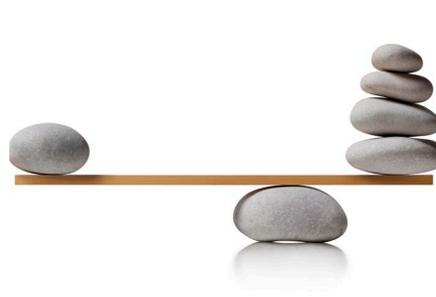
Quality & Quantity of Water



Social & Political Impacts



Human Health & Well-being



Inequity & Justice



Housing & Infrastructure



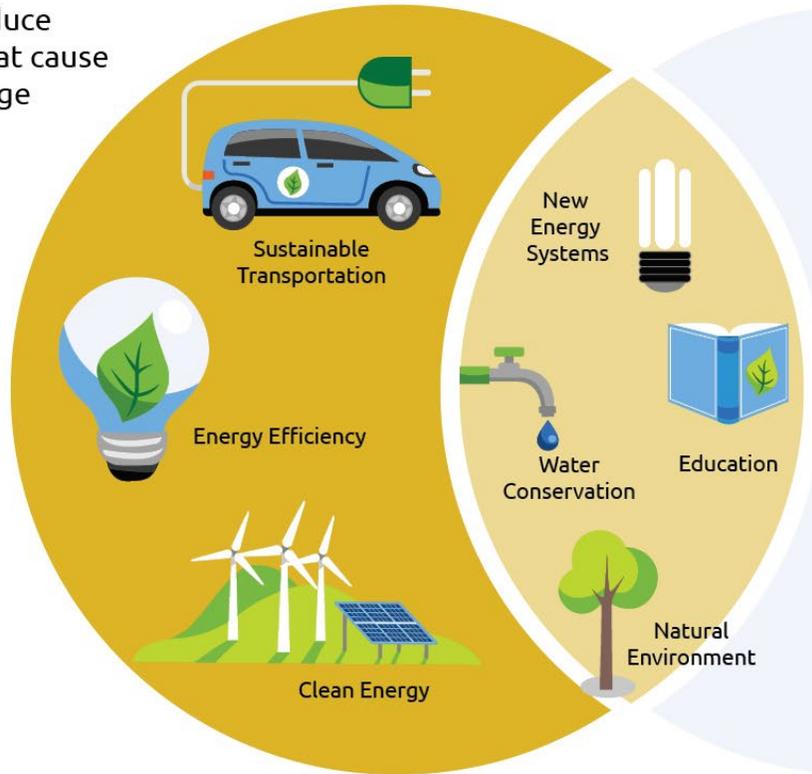
Transitioning Economy

Prevention/Mitigation vs. Adaptation



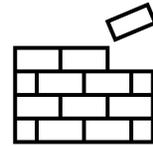
Mitigation

Action to reduce emissions that cause climate change



Adaptation

Action to manage the risks of climate change impacts



Disaster Management & Business Continuity



Infrastructure Upgrades



Flood Protection

Prevention & Adaptation - Strategies



Climate-Minded Law Development

Developing a climate-minded path within your community's enforcement strategies:

- **Environmental Protection**
- **Environmental Assessment**
- Contaminants
- Environmental Emergencies & Natural Disasters
- Conservation & Heritage Management
- Recycling & Solid Waste Management
- EMP Implementation
- Sewage & Effluent Discharges
- Greenhouse Gas Emissions Control
- Ticketing & Enforcement
- Land Use Plan & Zoning
- Subdivision, Development & Servicing



RC Supports for Climate-minded Planning

- Environmental Management Planning
- Land Use Planning
- Solid Waste Management
- Ongoing support & advice for environment or climate change issues or planning



Prevention & Adaptation - Funding

Climate Action Awareness Fund

- **ECCC:** Supports projects in youth climate awareness, community-based climate action, research, and advancing climate science technology

Climate Change & Health Adaptation Program

- **ISC:** Supports First Nations south of 60 in community-driven projects, building capacity in adaptation to the health impacts of climate change.

First Nation Adapt Program

- **CIRNAC:** Supports First Nations located south of 60 to assess and respond to impacts from climate change on community infrastructure & management.

Indigenous Climate Action Health Fund

- **First Nations Health Authority:** Supports First Nations in BC in reducing impacts to health from climate change.

Prevention & Adaptation - Panel Discussion



Magnetawan First Nation

Samantha Noganosh



Mistawasis Nehiyawak

Anthony Johnston



T'Sou-ke First Nation

Chief Gordon Planes

Q1. What does prevention and adaptation mean to your community, and what would you tell other communities who are motivated to start implementing climate-preparedness strategies?

Q2. What does your community consider to be a climate change risk?
How does your community assess possible preventative or adaptive measures to these risks?

Q3. Which supports do you feel are integral for First Nations to develop appropriate climate change strategies for their communities?

Q4. What is the biggest limitation or challenge your community faces when it comes to preventing or adapting to the effects of climate change?

Developing a Climate Change Strategy for Resilient Communities under the Framework Agreement

Community Considerations



Bingwi Neyaashi Anishinaabek

Jordan Hatton



Ditidaht First Nation

Monty Horton



First Nations Financial Management Board

Mylon Ollila



Canadian Centre for Climate Services

Ellen Pond



Successes, Challenges, Needs



Bingwi Neyaashi Anishinaabek

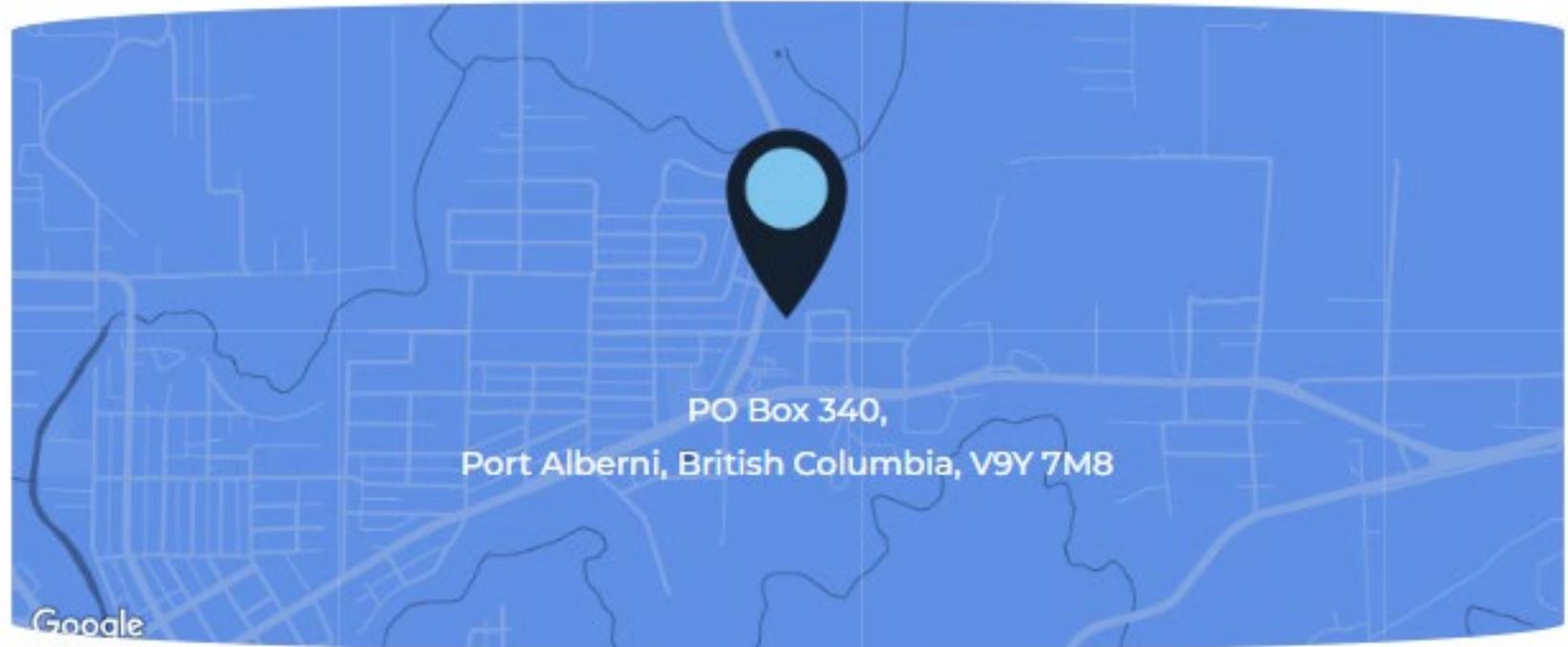
Operational





Ditidaht First Nation

Operational



PO Box 340,
Port Alberni, British Columbia, V9Y 7M8



First Nations
**FINANCIAL
MANAGEMENT
BOARD**

**CONSEIL
DE GESTION
FINANCIÈRE** des
Premières Nations



**First Nations
Infrastructure Institute**



Canadian Centre for Climate Services



Developing a Climate Change Strategy for
Resilient Communities under the Framework Agreement

Infrastructure & Development

Moderated by:

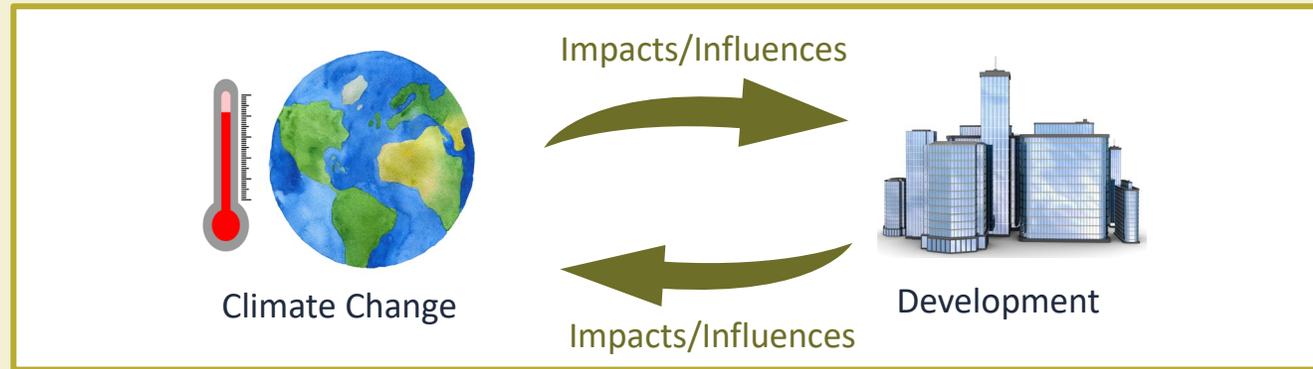


Chantal Kitamura

Environment & Enforcement Advisor



Infrastructure & Development



Extreme weather events threaten the integrity of community developments and infrastructure. This has wide-ranging impacts from public health and safety concerns, to costly repairs and the disruption of social services.

Sustainable development policies, practices and tools can help reduce the GHG emissions that are contributing to climate change, and they can help set the stage for building resiliency within communities.

Infrastructure & Development – Planning Tools

Risk and Vulnerability Assessments



- Can help identify climate risks that threaten community infrastructure.
- Proposes adaptation strategies to reduce identified risks.

Emergency Management Planning



- Can help identify strategies to protect community buildings, facilities and infrastructure (i.e., hospitals, roads, water and wastewater facilities), so that they can operate during an emergency

Hazard Mapping



- Can help identify areas where hazards, such as floodplains exist.
- Hazard mapping can help inform appropriate building setbacks and suitable areas for future development.

Land Use and Environmental Management Planning



- Can help identify laws, policies and tools that will guide sustainable development
 - Development and zoning laws
 - Environmental laws
 - Energy efficient design
 - Fire Smart design
 - Riparian setbacks

Infrastructure & Development – Green and Grey Infrastructure

Grey Infrastructure



- Rip rap
- Culverts to withstand larger peak flows
- Storm pipes
- Roads with raised road beds
- Dams
- Seawalls
- Berms
- Water and wastewater facilities
- Fire resistant building materials
- Storm resistant building materials

Green Infrastructure



- Wetlands
- Forests
- Waterbodies (i.e., lakes and rivers)
- Soil
- Rain gardens
- Bioswales
- Stormwater retention ponds
- Permeable pavement
- Green roofs
- Rain harvesting/collection
- Shoreline naturalization
- Fire breaks

Infrastructure & Development – Clean Energy

Solar



Example:
T'Sou-ke First Nation



- Developed a 75 kilowatt solar project, that includes a suite of solar options to produce both hot water and electricity

[T'Sou-ke First Nation, 2021](#)

Geothermal



Example:
Fort Nelson First Nation



- Developing the Tu Deh-Kah Geothermal Project, which could provide up to 7-15MW of electricity in Northeastern BC

[Tu Deh-Kah Geothermal, 2022](#)

Wind



Example:
Henvey Inlet First Nation



- Developed a 300 MW wind project that produces energy for about 70,000 homes

[Henvey Inlet First Nation, 2022](#)

Electric



Example:
Nipissing First Nation



- Developed Nbisiing Power, an Electrical Power Equipment reseller that will focus on Indigenous procurement opportunities

[Nbisiing Power, 2022](#)

Infrastructure & Development – Funding Opportunities

First Nations Adapt Program (CIRNAC)

- Provides funding for projects that assess and respond to climate change impacts on community infrastructure and disaster risk reduction
- Note: this program specifically funds First Nations that are located below the 60th parallel
- Applications appear to be reviewed on an on-going basis, until available funding has been allocated
- Website: <https://www.rcaanc-cirnac.gc.ca/eng/1481305681144/1594738692193>

Indigenous Community Infrastructure Fund (ISC)

- Supports ongoing, new and shovel ready infrastructure projects such as energy, housing, schools, cultural facilities, health facilities, water and wastewater facilities
- Contact ISC regional offices for more information
- Website: <https://www.sac-isc.gc.ca/eng/1628172767569/1628172789746>

Disaster Mitigation and Adaptation Fund (Infrastructure Canada)

- Supports infrastructure projects (structural and natural) to increase the resilience of communities that are impacted by climate change
- Second application assessment period appears to be postponed
- Website: <https://www.infrastructure.gc.ca/dmaf-faac/index-eng.html>

Green and Inclusive Community Buildings Fund (Infrastructure Canada)

- Supports green and accessible retrofits, repairs or upgrades of existing public community buildings and the construction of new publicly-accessible community buildings
- Applications for small to medium retrofit projects appear to be accepted on a continuous basis
- Website: <https://www.infrastructure.gc.ca/gicb-bcvi/index-eng.html>

Infrastructure & Development – Mentorship and Resources

First Nations Infrastructure Institute (FNII)



- “An Indigenous-led initiative that will support Indigenous communities and organizations to plan, procure, own and manage their infrastructure assets on their lands”
- Various tools and webinars available on the FNII website
- Website: <https://fnii.ca/>

Indigenous Clean Energy (ICE)



- Social Enterprise that “advances Indigenous inclusion in Canada’s energy futures economy through Indigenous leadership and broad-based collaboration”
- Includes capacity building programs, networking opportunities and Youth programming
- Website: <https://indigenoucleanenergy.com/>

First Nations Infrastructure Resilience Toolkit



- Ontario First Nations Technical Services Corporation
- “Allows First Nation communities to assess the vulnerability of their infrastructure buildings and facilities due to extreme weather”
- Website: <https://ofntsc.org/our-services/core-services/operations-and-maintenance/first-nations-infrastructure-resilience#:~:text=The%20FN%2DIRT%2C%20or%20Toolkit,facilitie s%20due%20to%20extreme%20weather.>

Standards Council of Canada



- “Delivers standardization strategies to mitigate the impact we have on the environment and thrive in a changing climate.” Some examples include:
 - Flood resilience and stormwater management
 - Fire resilient design
 - Website: <https://www.scc.ca/en/flagships/environment>

Infrastructure & Development - Panel Discussion



Westbank First Nation

Krista Derrickson



**First Nations Financial
Management Board**

Mylon Ollila



Nbisiing Power

Christine Goulais

Q1. Please tell us about your experience in supporting First Nation climate-resilient infrastructure and development initiatives or projects.

Q2. What prompted your organization to explore and pursue climate resilient opportunities in the infrastructure and development industry?

Q3. How do you think that climate-resilient opportunities in the development industry can contribute to other environmental, social, cultural and economic development goals?

Q4. Are there any funding or partnership opportunities that you have found beneficial to establishing climate-resilient infrastructure and development initiative or project?

Developing a Climate Change Strategy for
Resilient Communities under the Framework Agreement

Networking & Discussion



SUMMARY OF DAY ONE



DAY ONE

Developing a Climate Change Strategy for Resilient Communities under the Framework Agreement

**DAY TWO – 9:00 AM PDT
12:00 PM EST**



Developing a Climate Change Strategy for
Resilient Communities under the Framework Agreement

Emergency Planning & Response

Moderated by:



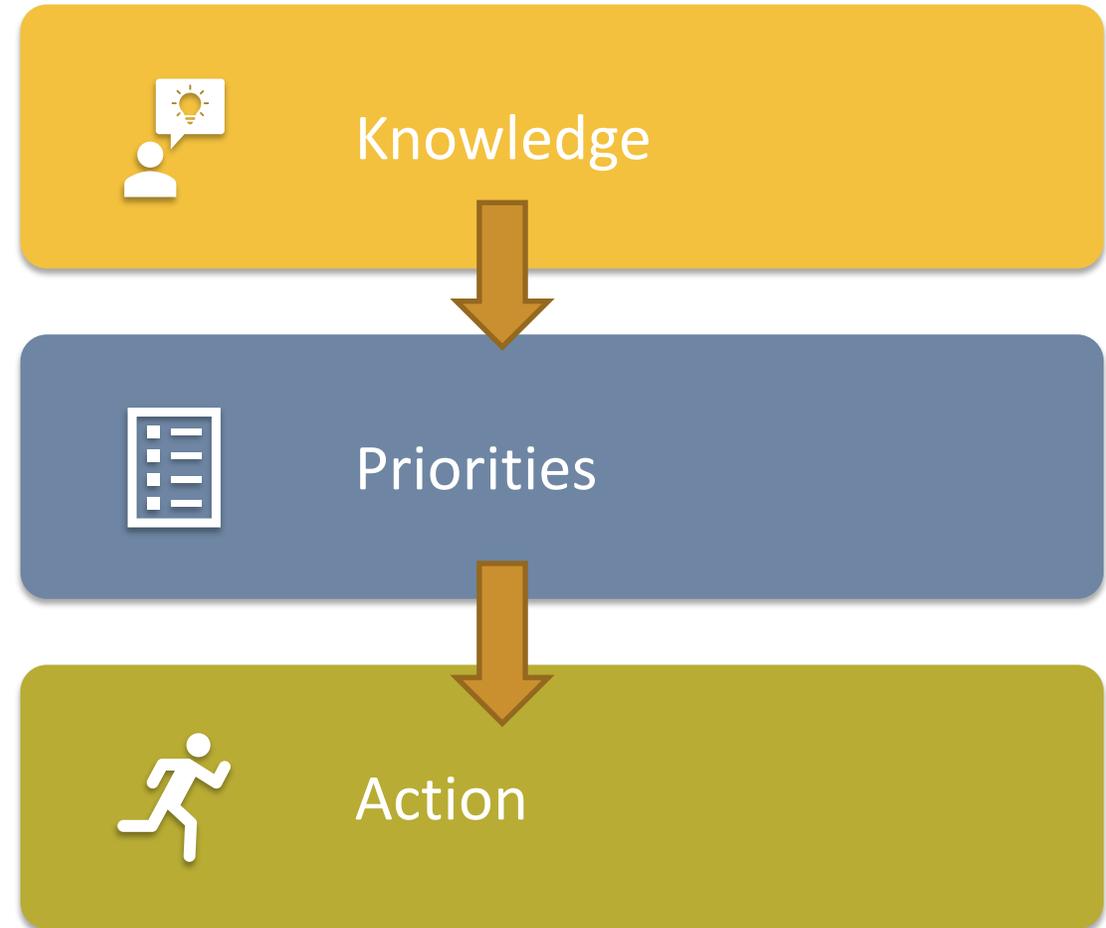
Adam Wright

Planner, Land Code Governance



What is Planning?

Turning Knowledge into Action



Why Do We Plan?

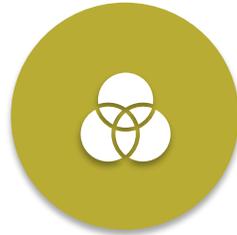
To Help Improve Decision-Making



PRIORITIES



ALTERNATIVES



ANALYSIS,
VALUES



RISK &
LIABILITIES



YES/NO

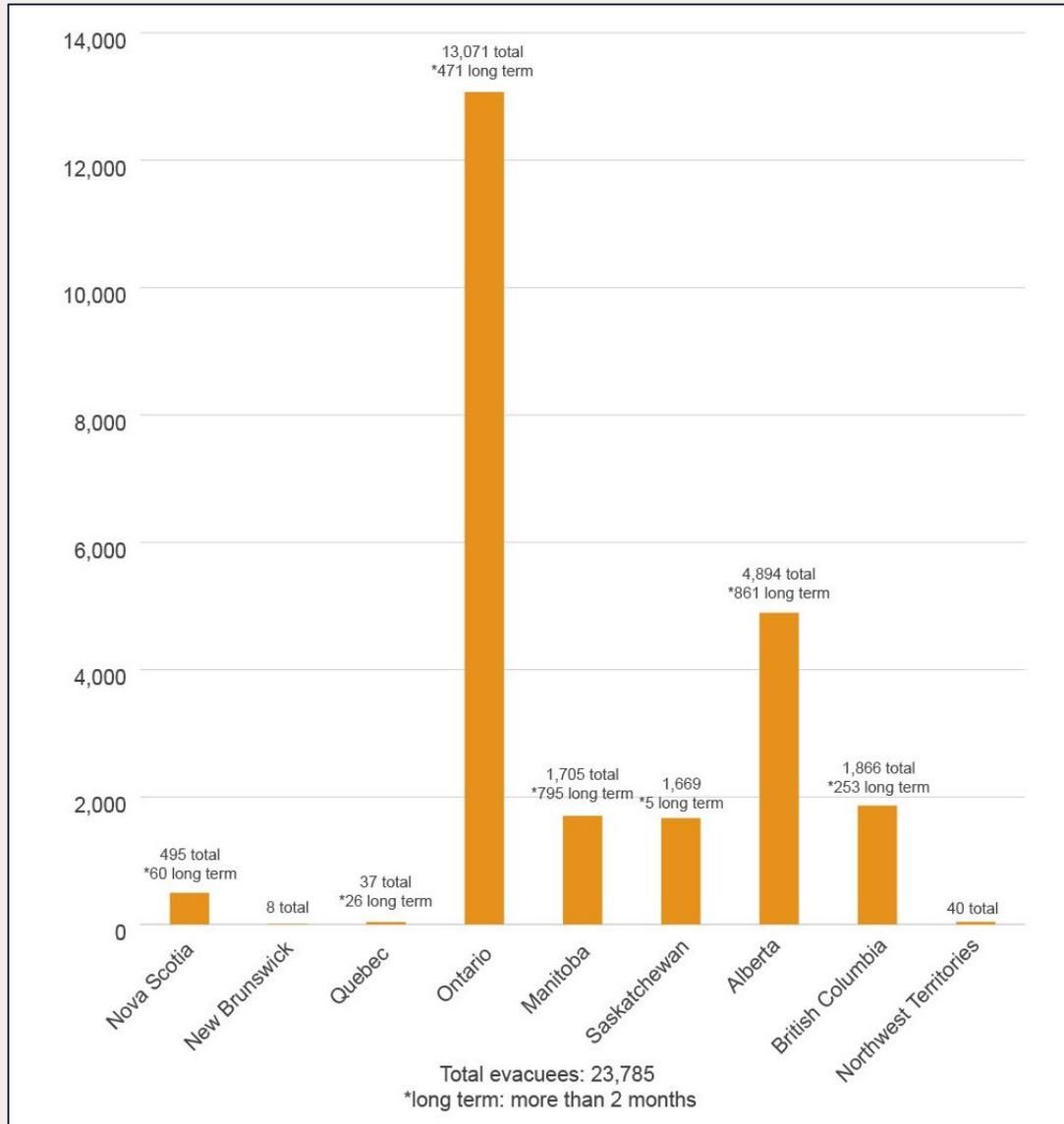
Emergency Planning & Response

- On the ground impacts of Climate Change are felt in very real ways for First Nations communities, affecting the way that community members access food, health services, community services, employment, etc.
- These interruptions can last for days, months, and sometimes years.

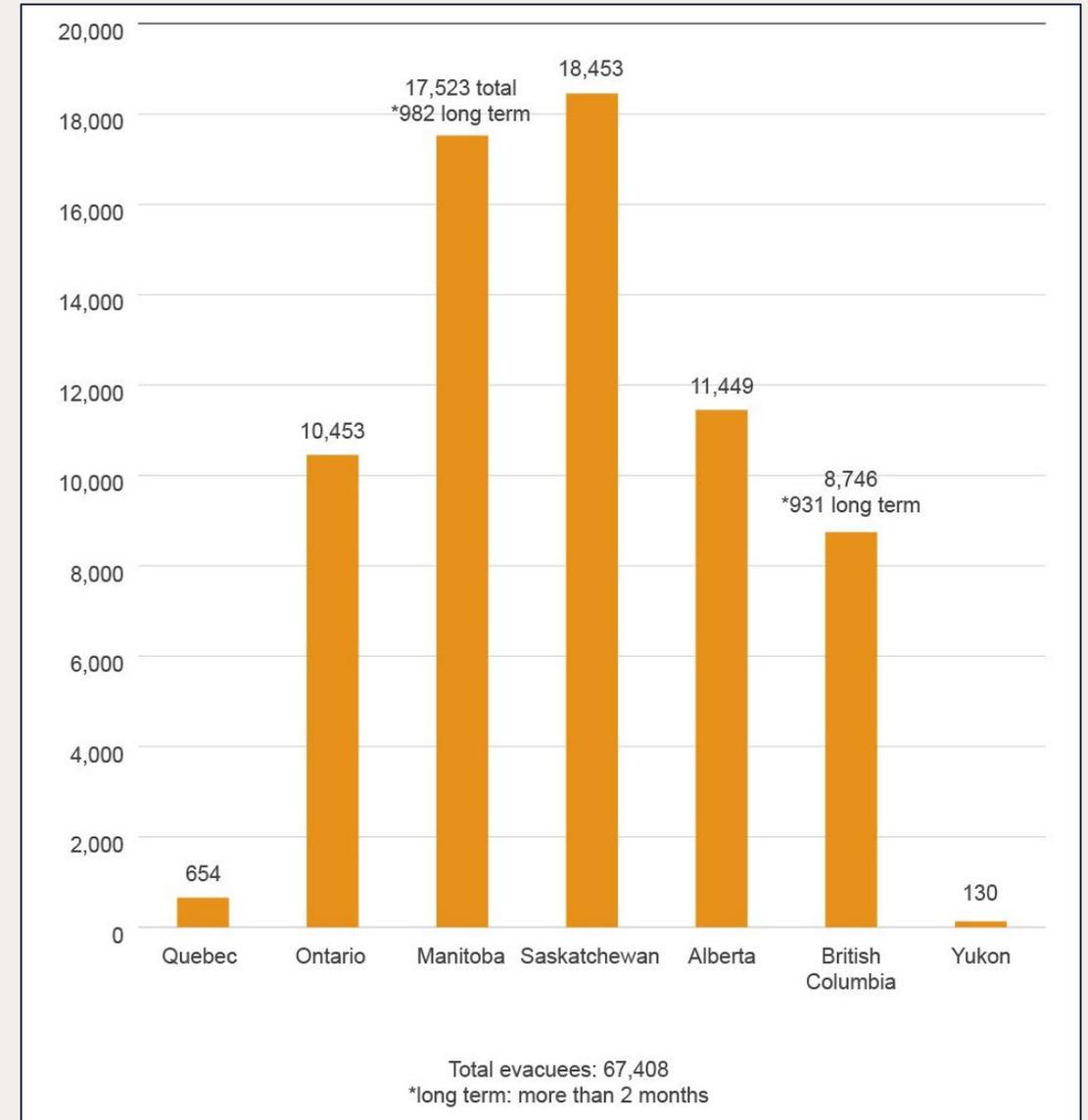


Between April 1, 2013 and March 31, 2022, statistics about wildland fire and flood evacuation show that more than 90,000 First Nations people on reserves have faced temporary evacuation. — ISC, 2022, retrieved from <https://www.sac-isc.gc.ca/eng/1534954090122/1535120506707?wbdisable=true>

Number of First Nations flood evacuees by province or territory between April 1, 2013 and March 31, 2022



First Nations wildfire evacuees by ISC region between April 1, 2013 and March 31, 2022



Emergency Planning & Response: What is an Emergency?

An emergency can be considered a:

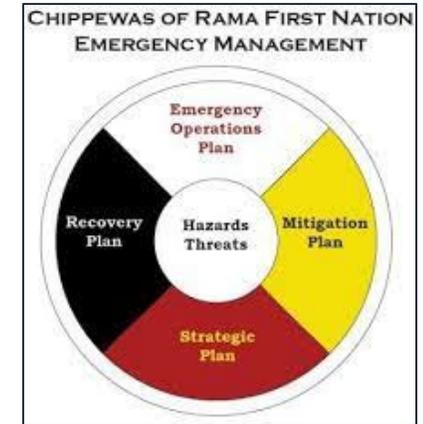
"A situation or an impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident whether intentional or otherwise."



Emergency Planning & Response: What is an Emergency Plan?

An emergency plan specifies procedures for handling sudden or unexpected situations. The objective is to be prepared to:

- Prevent fatalities and injuries to community members and people in the region.
- Reduce damage to buildings, community lands, infrastructure and community equipment.
- Protect sensitive environmental lands and community infrastructure.
- Provide framework for rapid and comprehensive response to an emergency situation.



Emergency Planning & Response: What is an Emergency Plan?

An Emergency Plan is:

- An evaluation/identification of community risks.
- A system for notifying officials/agencies who must respond.
- A description of responsibilities for key positions and who will fill these positions (including 24-hour contact information).
- A description of the communications system to be used.
- A list of resources for finding information.
- Contacts and equipment in a hurry.



Emergency Planning & Response: Benefits of an Emergency Plan

There are several benefits of developing an Emergency Plan:

- In the event of an emergency, everyone knows their role;
- Your community will be better able to respond to and recover from an emergency or disaster;
- Your community will have identified evacuation routes and resources to assist you with emergency needs (food, shelter, medical, heavy equipment, etc.);
- It gives your community the opportunity to identify and prioritize community needs in advance.
- Supports effective communication in the moment so people know where to get updates / news from Leadership.



Emergency Planning & Response: Elements of an Emergency Plan

What are the elements of the emergency plan?

- Identified possible emergencies, required actions, written procedures, and the resources available.
- Detailed lists of emergency response personnel including their cell phone numbers, alternate contact details, and their duties and responsibilities.
- Quick reference chart with steps to be taken and who to contact in case of an emergency event.
- Large scale maps showing evacuation routes and service conduits (such as gas and water lines).

Since a sizeable document will likely result, the plan should provide staff members with separate written instructions about their specific emergency response duties.



Emergency Planning & Response: Regional Partnerships and Working Together

- Some First Nations have signed mutual support agreements with neighbouring communities for service delivery in the event of an emergency.
- By sharing services such as fire departments and first responders, the aim is to have both groups work together on emergency management.



Emergency Planning & Response: Building a New Future

- Although difficult to see in the moment there are opportunities as a result of climate emergencies.
 - **Proactive Response** - planning and development of emergency planning processes
 - **Reactive Response** - adapting to the new reality of your community geography



Practical Approaches in response to Climate Change

- RC can provide support to First Nations as they seek practical responses to climate change in their communities
 - Emergency Response Plans
 - Community Energy Plans
 - Stormwater Management Plans
 - Forest Management Plans
 - Food Security Plans / Strategies

Funding Sources

- Emergency Management Assistance Program – Indigenous Services Canada (ISC)
- First Nations Emergency Services Society (FNESS)
- Others?



Emergency Planning & Response - Panel Discussion



Lac La Ronge Indian Band

Ty Roberts



Preparing Our Home

Lily Yumagulova & Casey Gabriel



T'Sou-ke First Nation

Chief Gordon Planes

Q1. Was there an extreme weather event or occurrence that prompted your community to take action on emergency planning & response?

Q2. Did you or are you currently working with a neighbouring First Nation or municipal government to develop a regional response to emergency planning?

Q3. Has your First Nation received any funding related to climate change preparedness or emergency planning?

Q4. What does your ideal 'climate resilient community' look like with respect to emergency planning? Any lessons learned that you would like to share?

Developing a Climate Change Strategy for Resilient Communities under the Framework Agreement

Community Considerations



Westbank First Nation

Saige Werstuik



Chemawawin Cree Nation

Fabian Sinclair



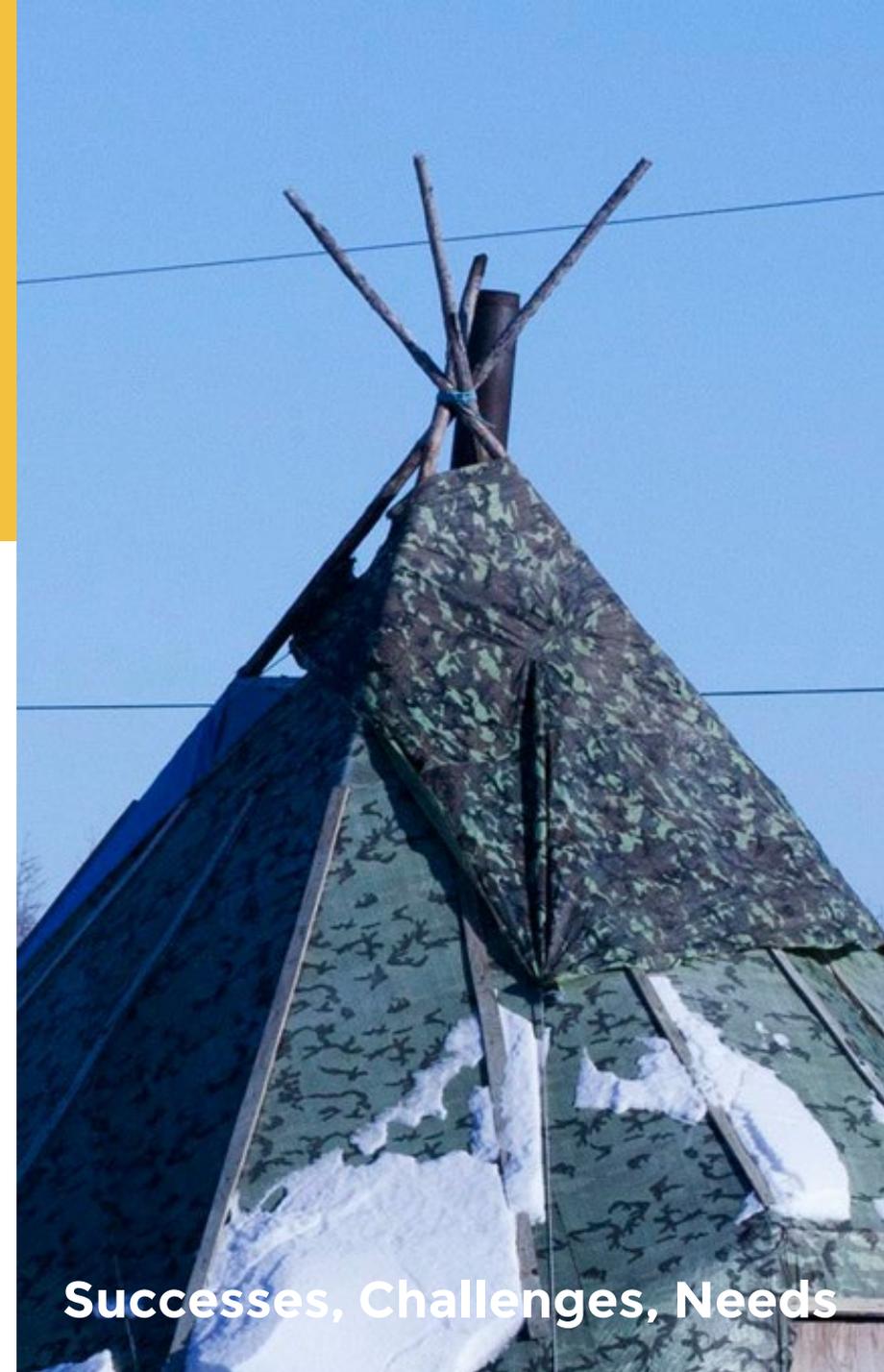
Chippewas of the Thames First Nation

Brennan Vogel



Nisichawayasihk Cree Nation

Gord Dumas

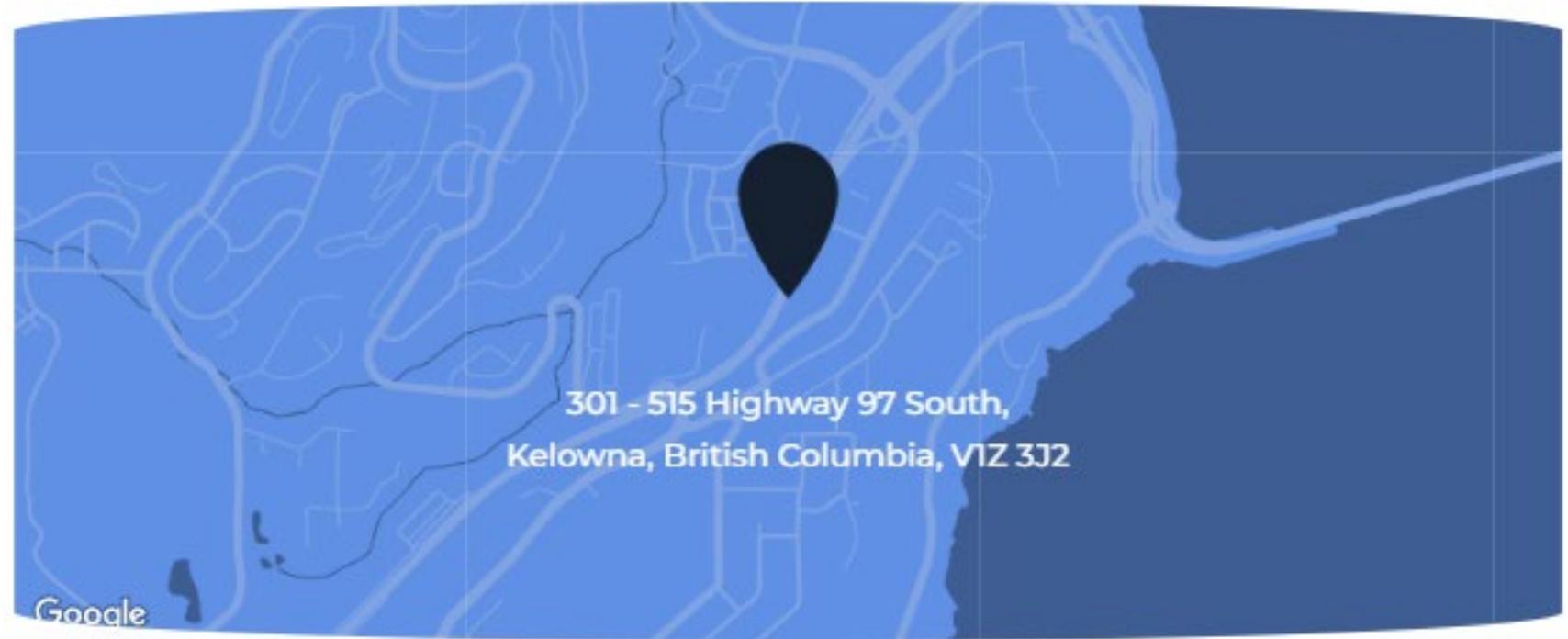


Successes, Challenges, Needs



Westbank First
Nation

Self Governance

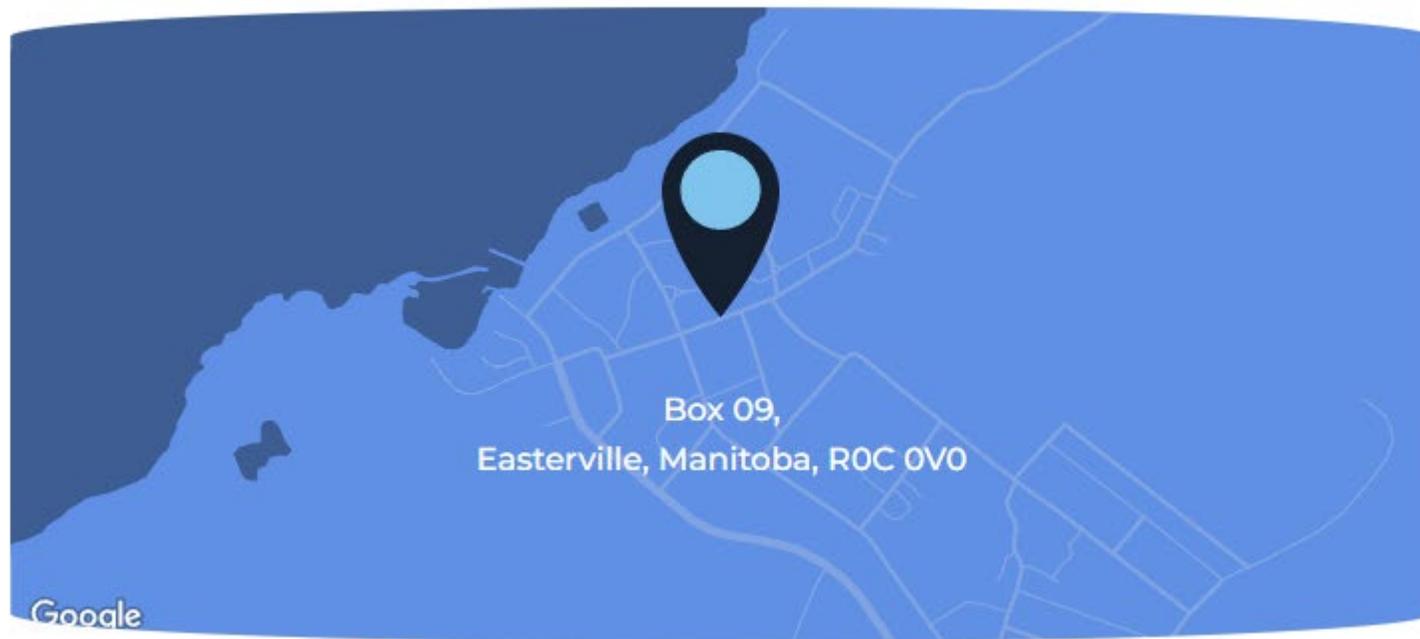




Chemawawin Cree Nation

Chemawawin Cree Nation

Operational





Lands & Water

- Wetlands
- Fish protection
- Water samples
- Moose population
- Ongoing impacts

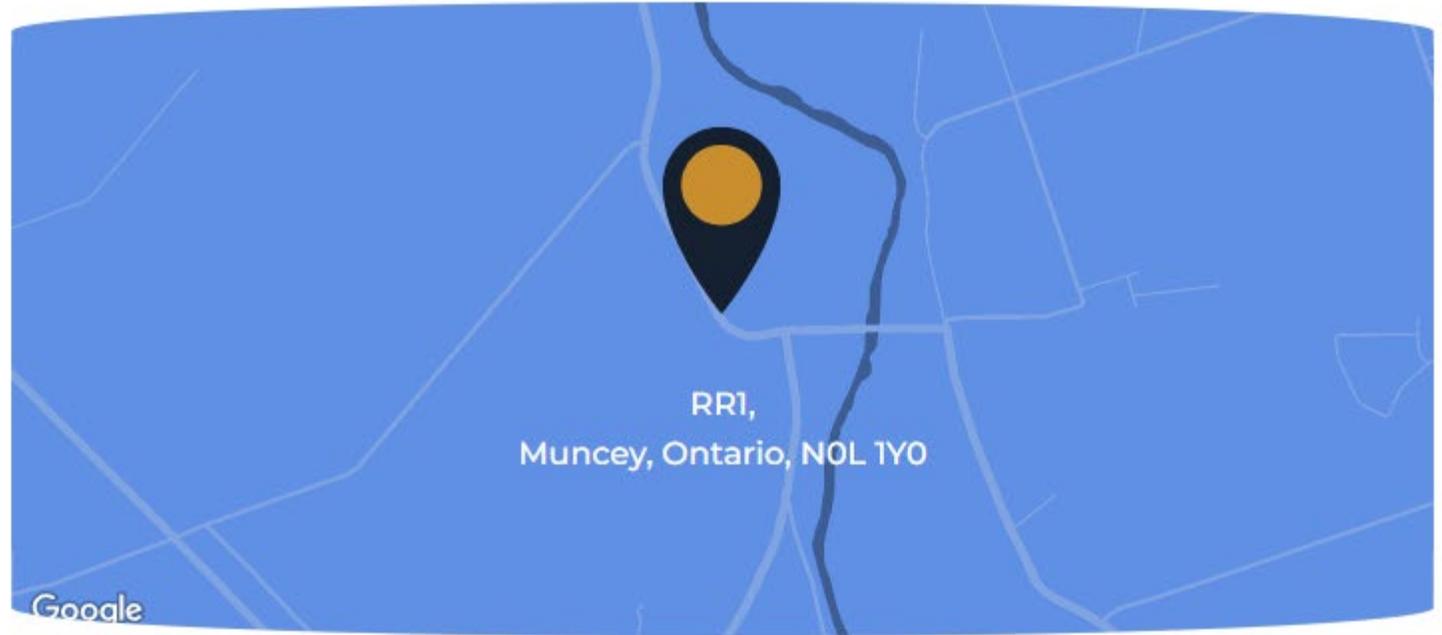
Ekosi, Thank you





Chippewas of the Thames First Nation

Developmental - Active





Nisichawayasihk Cree Nation

Operational



Developing a Climate Change Strategy for
Resilient Communities under the Framework Agreement

Food Security

Moderated by:



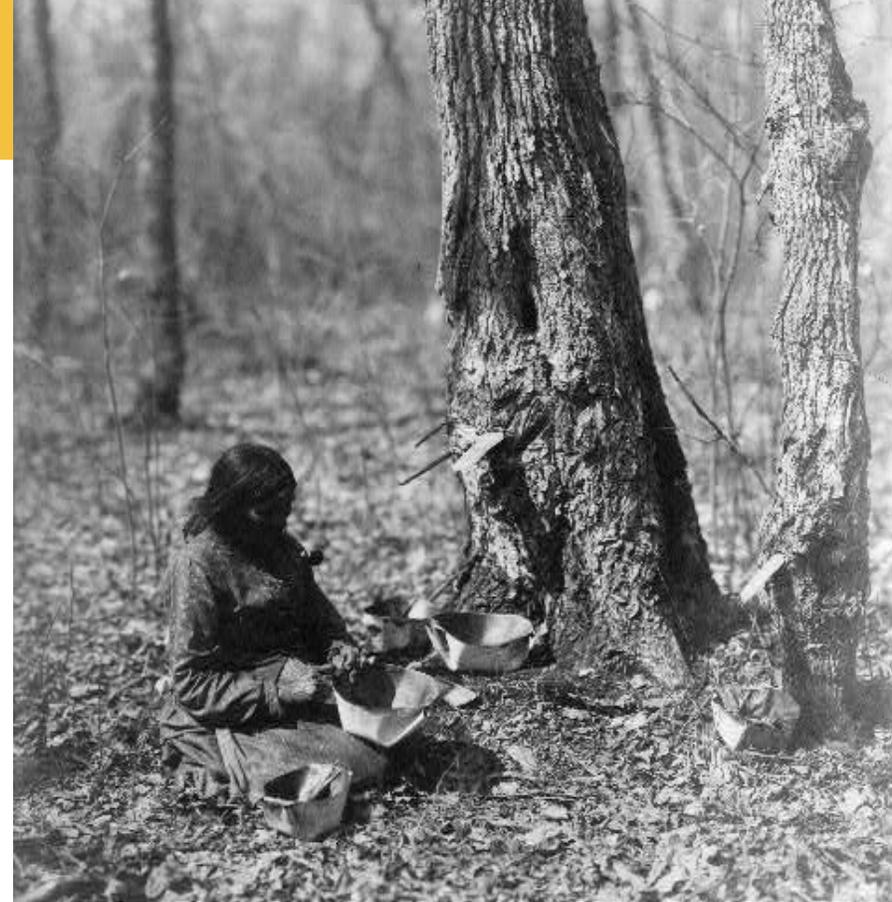
Stefanie Recollet

Waste Management Specialist



Indigenous food systems

- Diverse
- Land-based diet
- Sustainable harvesting – working with the seasons, rotation & allowing for natural replenishing of ecosystem
- Natural techniques – not reliant on modern (energy inefficient) technology
- Reciprocal – offerings, respecting interconnectivity
- Kinship/ relationship



Challenges to traditional food systems

Climate change – catastrophic storms, droughts, wildfires, rising water temperature

Land dispossession, privatization, extraction and development

Residential schools - erasure of indigenous food knowledge

Physical barriers - Flooding caused by damming,

Unsustainable land management practices

Wildlife – loss of habitat, disease, economy over conservation

Restricting traditional land management practices

Pollution

Planning to reduce vulnerabilities in food systems

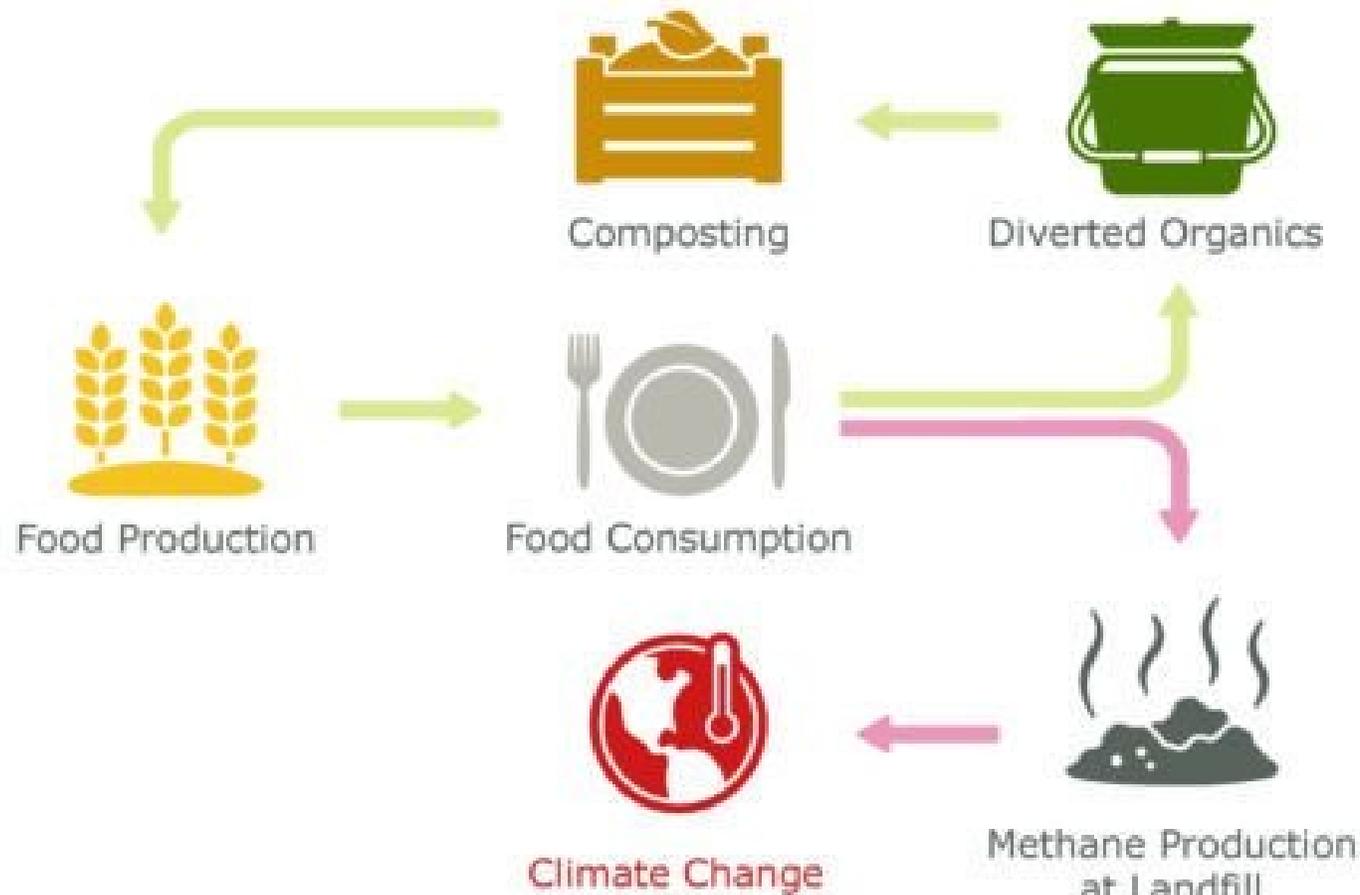
Threats/ Vulnerabilities		Response / Actions
Catastrophic disasters		Emergency Planning, disaster relief and sharing alliances, food distribution programs
Access & Affordability		Localizing food production, supporting traditional economies
Crop failures – droughts, pests, disease		Drought resistant seeds, rain collection, companion planting, crop rotation & diversity
Invasive species & Species at Risk		Eating invasives, value added products Restocking Hatcheries
Local Limitations eg. Short Growing seasons and/or depleted soils		Technology – greenhouse, hydroponics Techniques - regenerative practices

Practical solutions in food security

- Relearning & teaching traditional practices ex. harvesting, food and medicine preservation and preparation
- Indigenous-led land management and conservation
- Working with nature – biodiversity, permaculture, restorative practices
- Food sovereignty – culturally appropriate, Country Foods, Indigenous seed saving
- Closed loop – circular systems of resource recovery – composting -> soil enhancement – > garden



Building Resilience: Organic Waste Diversion & Food Security



Funding Sources & Resources

Local Food Infrastructure Fund

From: [Agriculture and Agri-Food Canada](#)

intake phase can be submitted from June 1 until July 15, 2022

Committed \$35.7 million to support community gardens and kitchens; refrigerated trucks and storage units for donated food; greenhouses in remote and Northern communities



INDIGENOUS
PEOPLES
RESILIENCE
FUND

\$5,000 to \$30,000 amounts of support are available.

Sustainable access to food security, food justice and food sovereignty (ex: purchasing food to distribute or cook and distribute to vulnerable groups, and purchasing gardening needs, developing food sovereignty infrastructures like gardens and greenhouses, or reclaiming the production or distribution of food systems to serve the community better);



community food centres
CANADA good food is just the beginning

Grant programs & Resource Library for manuals, videos, and other tools

Food Security - Panel Discussion



Tzeachten First Nation

Councillor Loren Muth



Muskeg Lake Cree Nation

Steven Wiig



Chemawawin Cree Nation

Fabian Sinclair



Nisichawayasihk Cree Nation

Gord Dumas

Q1. What is your community doing to increase food security?

Q2. How did you fund your food security initiative(s)?

Q3. What is the importance of Indigenous land management in food security for First Nation communities?

Q4. Do you have or are you exploring any beneficial partnerships to address food security?

Q5. What does the ideal food secure community look like?

Developing a Climate Change Strategy for
Resilient Communities under the Framework Agreement

Networking & Discussion



TWO DAY WORKSHOP

Developing a Climate Change Strategy for Resilient Communities under the Framework Agreement





2022 TMPD EVENT SCHEDULE

- First Nation Land Registry Fundamentals for the CITRIX User

Jan 13



- Records Management & Data Governance Considerations under Land Code

Feb 10



- Considerations for Commercial & Residential Leasing (A to A Leasing) under Land Code

Mar 9-10



- Approaches to Managing Legacy Issues under the Framework Agreement

Apr 7



- Land Governance Office – Considerations for Operational Start Up & Implementation of Land Code

May 12



- Developing a Climate Change Strategy for Resilient Communities under the Framework Agreement

Jun 8-9



- Enforcement & Dispute Resolution under Land Code

Jul 14



- Land Governance Authorities under Framework Agreement & Land Code

Aug 11



- Natural Resource Management under the Framework Agreement

Sep 7-8



- Update on the new model Land Codes

Oct 13



- Land Development Approaches under Land Code

Nov 10



- Environmental Management under Land Code

Dec 7-8




labrc.com/events



Webinars	1 Hour Sessions	11:00 – 12:00 PT / 2:00 – 3:00 ET
Workshops	2 Day Sessions	9:00 – 12:00 PT / 12:00 – 3:00 ET



T M Training, Mentorship &
P D Professional Development

Workshops & Webinars

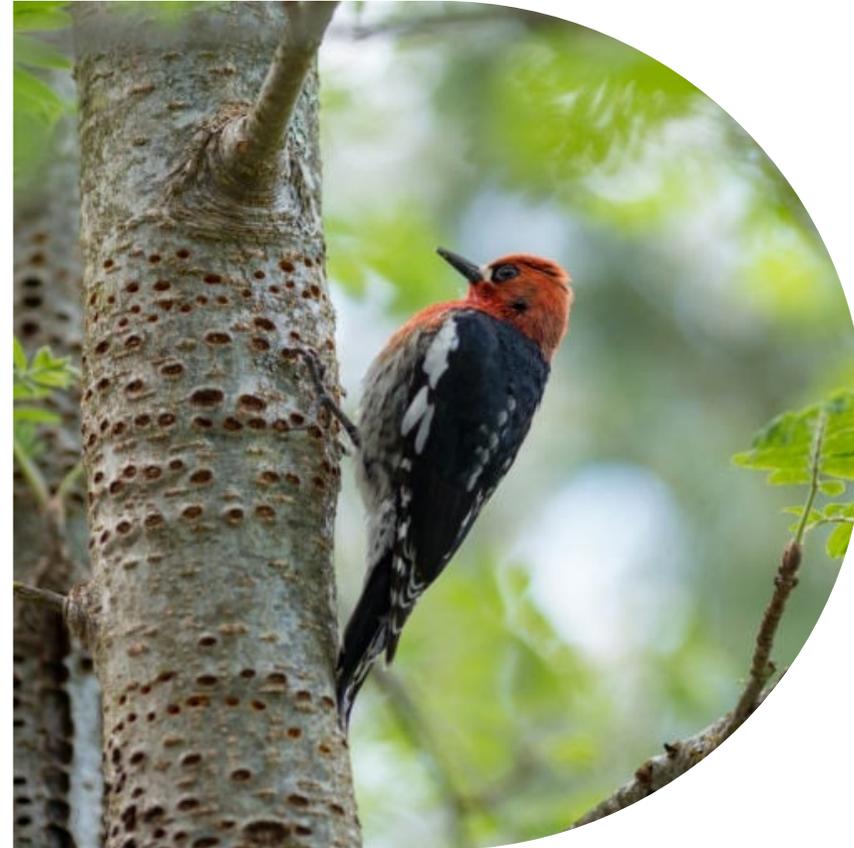
Online Courses

Knowledge Paths Tool

Land Governance Manual

Knowledge Repository

Direct Community Support (1:1)

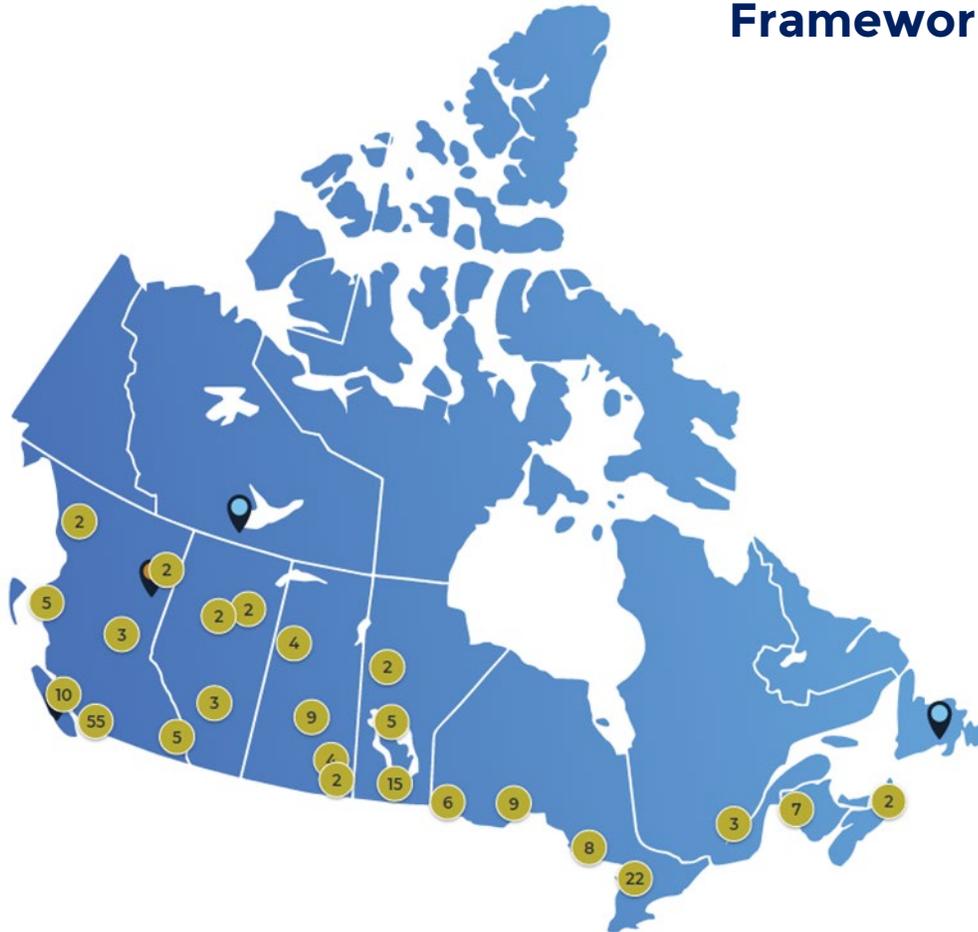




Framework Agreement Signatory First Nations across Canada

As of June 3, 2022

Total Signatories	194
Operational	100
Developmental - Active	57
Developmental – Inactive	34
Self Governing	3



[Lands Advisory Board](#) >[Resource Centre \(RC\)](#) >[Our History](#)[RC Board](#)[RC Staff](#)[Employment Opportunities](#)[RC Reports](#)

Employment Opportunities

Job Opportunities (Internal and External)

 Full Time Part Time Temporary

Lands Program Manager
Sts'ailes First Nation

Agassiz, BC

Full Time



Indigenous Knowledge and Land Use Researcher
Odonaterra Community Environmental Strategies

Preferably Ontario or West Quebec

Full Time



Director of Indigenous Planning
Odonaterra Community Environmental Strategies

Preferably Ontario or West Quebec

Full Time



Enforcement Specialist
FNLM Resource Centre Inc.

British Columbia or Prairies

Full Time



Lands Researcher
Anishinaabeg of Naongashiing

Morson, Ontario

Full Time

THANK YOU



Angie Derrickson

TMPD Manager

aderrickson@labrc.com



Lise Steele

TMPD Coordinator

lstele@labrc.com



Leana Farlam

TMPD Specialist

lfarlam@labrc.com