



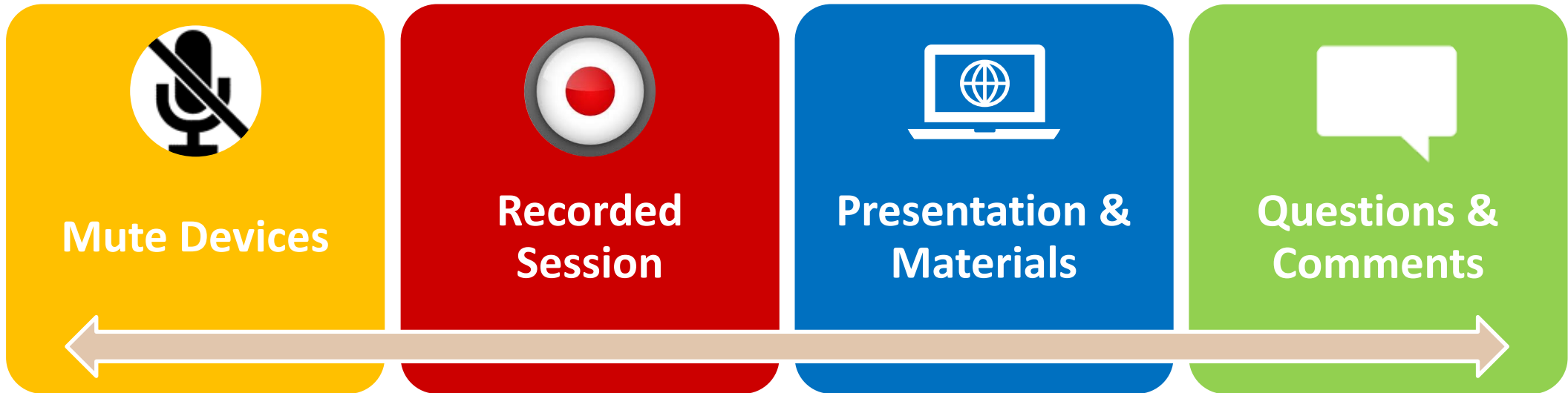
Climate Change and the Framework Agreement

TMPD Virtual Workshop

April 22 - 9:00 AM PDT / 12:00 PM EDT

WELCOME





AGENDA & OBJECTIVES



9:00 AM

Welcome & Introduction

- Angie Derrickson – TMPD Manager

9:10 AM

Climate Change Related Issues Faced by Land Code First Nations

- Stephen McGlenn – Specialist, Land Use Planning & Curriculum Delivery
- Cory Kozmik – Environment & Enforcement Advisor

9:20 AM

Community Led Actions Panel

- **Magnetawan First Nation** Samantha Noganosh – Lands, Resources and Environment Department Manager
- **T’Sou-ke First Nation** Andrew Moore – Architect, Community Development
- **Williams Lake First Nation** Brittany Cleminson – Coordinator, Natural Resources

10:35 AM

Virtual Networking Exercise 1

- Breakout Room Discussions & Body Break

10:55 AM

Climate Change and First Nation Communities

- Stefanie Recollet – Specialist, Waste Management

11:05 AM

What can the RC offer? - Tools through the FA to help mitigate the effects of climate change

- Adam Wright – Planner, Land Code Governance
- Chantal Kitamura – Environment & Enforcement Advisor
- Jennifer Predie – Manager, Land Code Governance

11:20 AM

Virtual Networking Exercise 2

- Breakout Room Discussions

11:45 AM

Summary & Workshop Close

Celebrate Earth Day !!!



Restore Our Earth™

www.earthday.org/earth-day-2021/

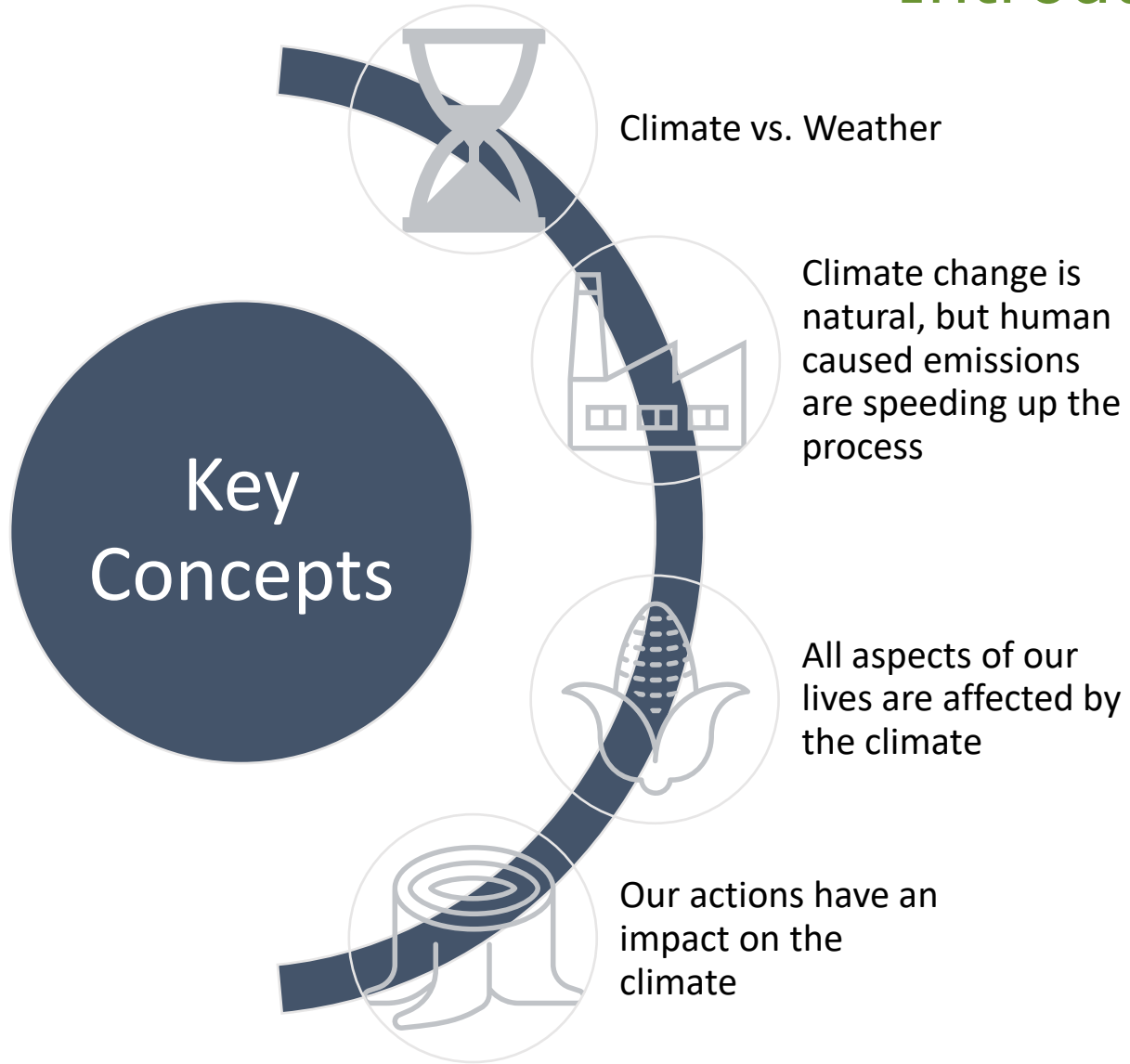


Climate Change Related Issues Faced by Land Code First Nations

Cory Kozmik & Stephen McGlenn



Introduction





“Connecting Guardians in a Changing World”

12 Nations Gathered to Discuss Climate Change

- Indigenous Science, research direction & policy
- Cultural Keystone Species
- Impacts to Traditional ways of life
- Monitoring & management

A rapidly changing climate is already affecting First Nation communities...



Transportation, Connectivity
& Accessibility to Services



Community Safety –
Evacuations, Displacement



Traditional Knowledge,
Sustenance, Food Security &
Harvesting Cycles



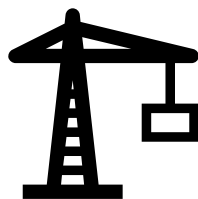
Shifting ecosystems
Invasive Species &
Species At Risk



Water Quality &
Quantity Issues



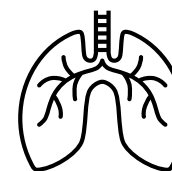
Housing &
Infrastructure



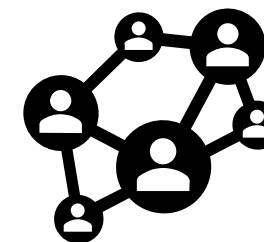
Economic transition



Inequities & Justice (gender,
income, employment, Law)



Human Health &
Well-being



Social & political outcomes –
Grief, Eco-anxiety, Climate Justice

To see what climate change looks like in your area:

[Climate Atlas of Canada](#)

Planning for a Rapidly Changing Climate

We already plan based on our local climate, but that climate is changing rapidly
Climate planning is likely to focus on adaptation, resilience and innovation, rather than prevention
First Nations are not contributing significantly to climate change, but are uniquely impacted

GOVERNANCE & PLANNING

Climate-informed Plans, Laws and decisions

THE BUILT ENVIRONMENT

Building & Infrastructure Standards, Design Guidelines, Green Assets

NATURE, THE ECONOMY & SOCIETY

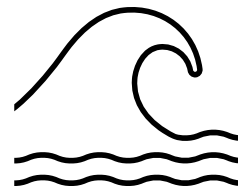
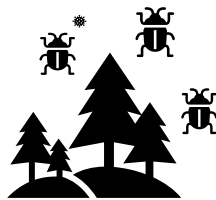
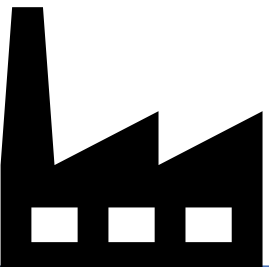
Environmental Protection, transition to Low-Carbon Economy

LANGUAGE, CULTURE & TRADITION

Revitalize Indigenous Planning & Governance.

[Whanganui River Legal Personhood](#)

RESILIENCE AND ADAPTATION



How can Planning under a Land Code help?



LEADING THE WAY – Fort Nelson First Nation

The "Clarke Lake Geothermal Project" would create power by pumping liquid 2.5 kilometres below ground, and back to the surface. Heat from the liquid is passed through a heat exchanger, and steam from the process creates electricity. The project will revitalize the local economy and generate 15 megawatts of electricity, which could power 14,000 homes.

[-from CBC News](#)

Moving beyond the *Indian Act*:

- Recognition of the value of planning as a core function of government
- Clearer planning structures & processes, community engagement requirements, law-making
- Revitalizing Indigenous Planning practices
- Community-driven and empowering planning informed by western and Indigenous science

Rapid climate change will make existing issues worse, and cause new ones

- Holistic "systems" approach needed
- Adaptive planning, "ecosystem-based" approach
- Integrated and collaborative planning – planning across disciplines, departments, jurisdictions

Opportunity for innovation in the transition to a low-carbon economy

- Renewable Energy
- Green building practices and smart growth
- Strong development regulations
- Environmental Protection, Monitoring, Restoration and Enhancement
- Natural Infrastructure
- Economic opportunities

First Nations Leading the Way: Indigenous-led Climate Resiliency

Indigenous Science

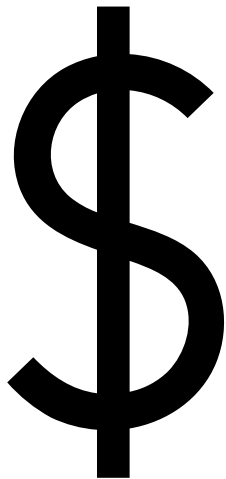
- Indigenous rights, nationhood
- Local knowledge of change
- Close observation of nature
- Holistic perspective, interrelatedness
- Stewardship ethic, planning for future generations



Western Science

- International collaboration
- Climate projections and models
- Inclusive and empowering approaches
- Training, education and awareness

Planning & Adaptation



Climate Science and Strategy should be driven by Indigenous people

Conservation of Nature is broadly recognized as important in the fight against climate change – most natural areas are part of Indigenous Territories. Indigenous people should be leading the way.

Funding needs to be adequate, consistent and based on local needs



Community Monitoring & Guardianship Governance



Community Engagement

Identifying Areas of Prioritization

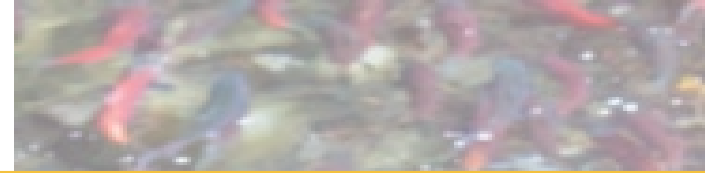
Baseline Data & Observations of Change Across Time

Informed Land Use Planning, EMP, Policy & Law Development

Prioritization of Natural Assets & Green Infrastructure

Community Led Actions

Panel Discussions



COMMUNITY LED ACTIONS PANEL



Magnetawan First Nation
Samantha Noganosh



T'Sou-ke First Nation
Andrew Moore



Williams Lake First Nation
Brittany Cleminson



Climate Impacts and Concerns Magnetawan First Nation



@MagFNLandsandResources



@species_at_risk_on_the_mag

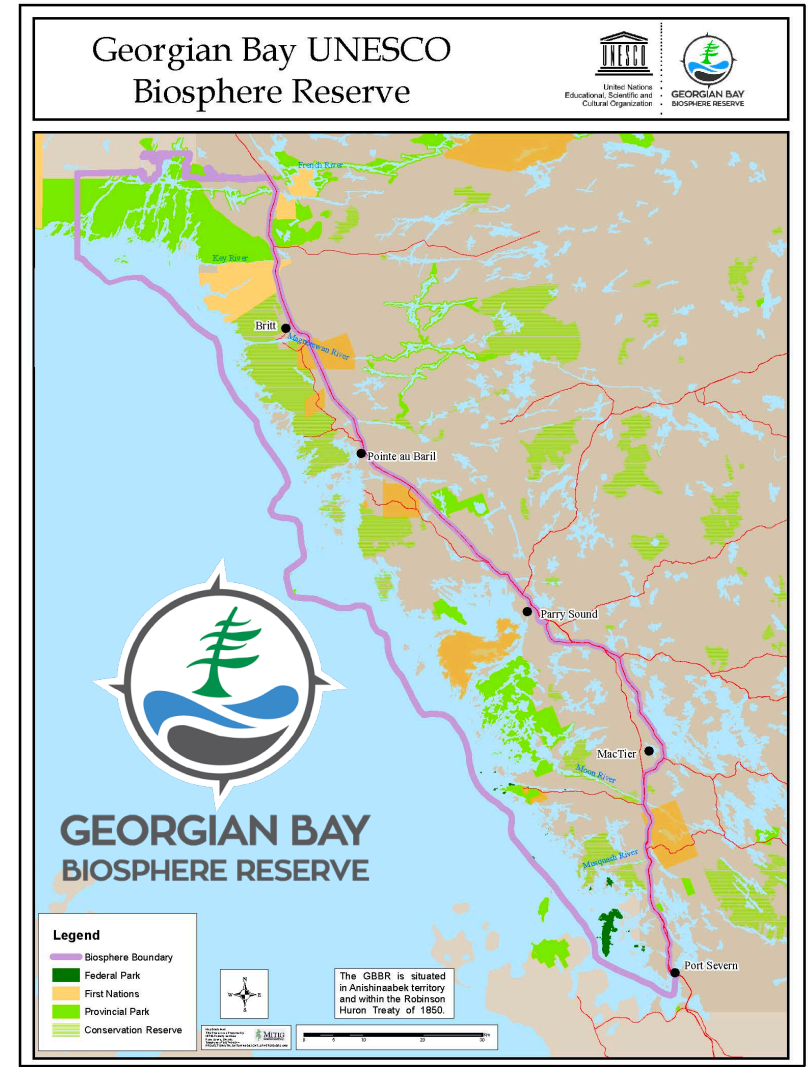
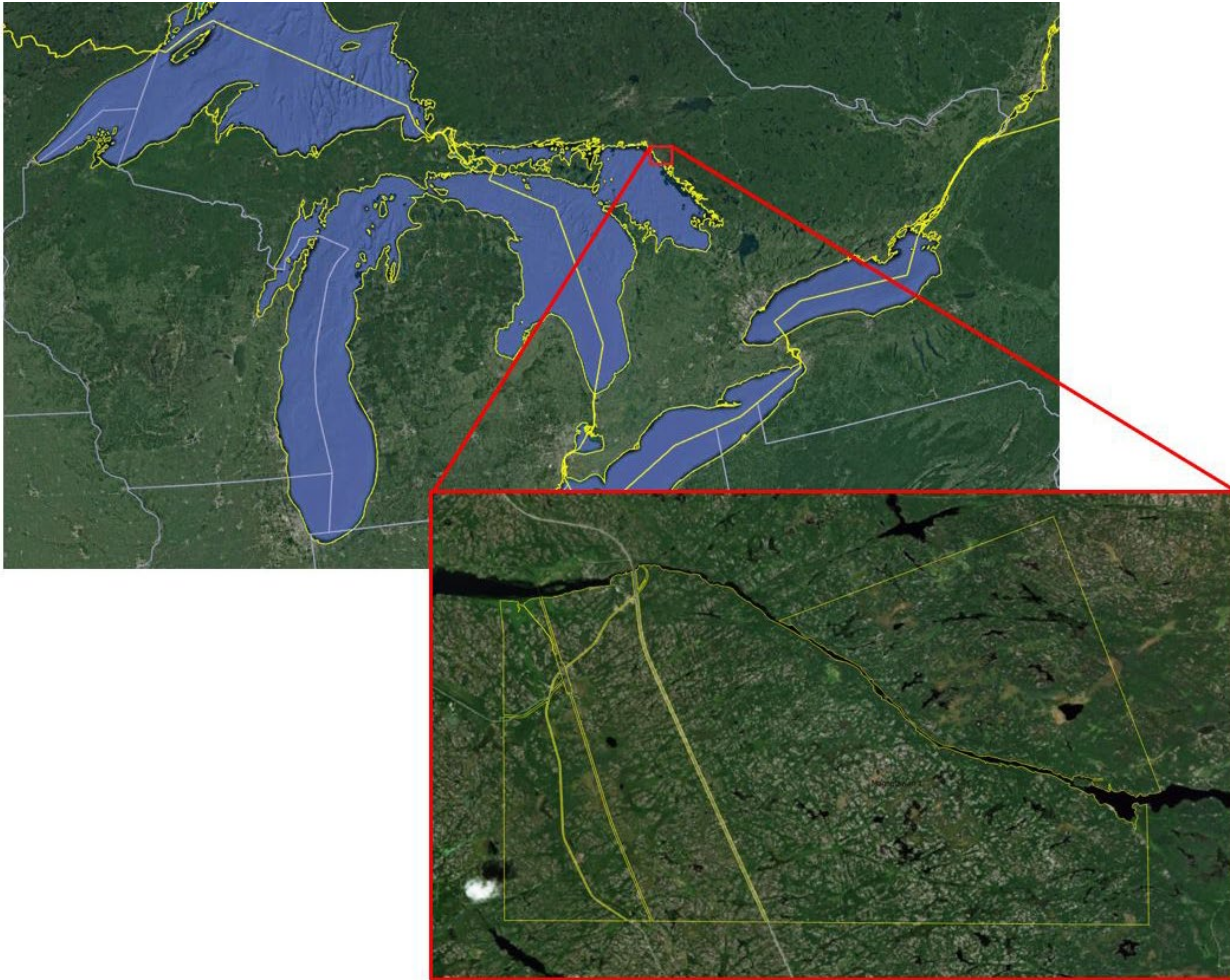
Lands Manager and Deputy Chief

Samantha Noganosh

Magnetawan First Nation



- 4700 ha
- Within the Georgian Bay Biosphere Reserve





Our Environmental/SAR Team

We aim to provide learning opportunities for community youth and foster research-based work with partners



Climate Change

What are we concerned about?

1. Impacts to Resources

- Industrial
 - Contaminants & pollutants
 - River Pollution
- Food sources
 - Traditional fish stocks declining
 - Number and health of Moose
- Traditional Medicines





Climate Change

What are we concerned about?

2. Environment

- Weather
 - Changes in seasonal timelines
 - Longer summers, shorter winters
 - Extreme weather events (flooding, wildfires)
- Invasive species
 - Outcompete native species
- Traditional Knowledge Transfer
 - Unfamiliarity with land users/ knowledge holders





Climate Change

What are we concerned about?

3. Impacts to Wildlife

- Invasive Species
 - Sea lamprey, carp
 - Destroy habitat & outcompete native species
- Parasites
 - Increased northern range limits
 - Winter ticks!!!
- Changes in habitat
 - Quality, quantity
- **WETLANDS!**



Why are Wetlands Important?

1. Resources

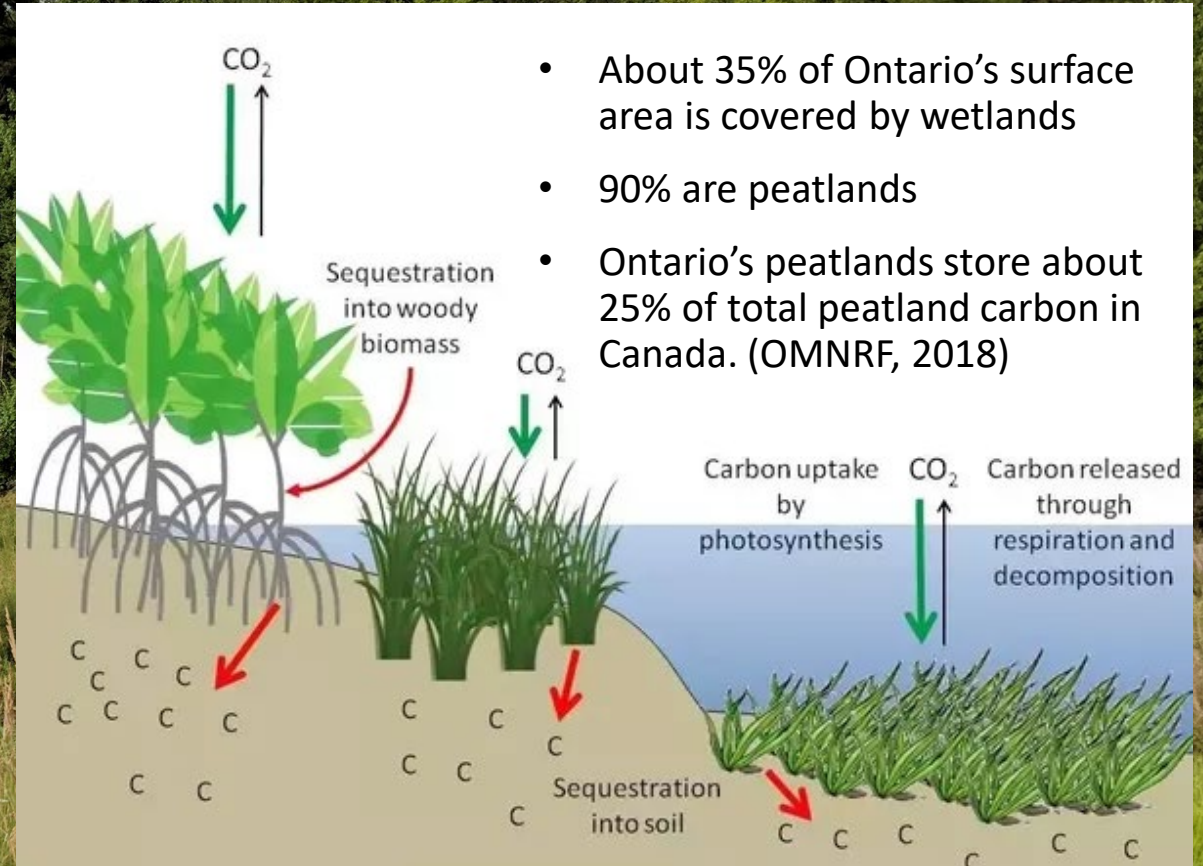
- Hunting
- Trapping
- Food
- Medicines

2. Environment

- Store large percentage of Earth's carbon
- Water filtration
- Flood plains

3. Wildlife

- Home for many aquatic species
- Foraging habitat
- Nesting/critical life stages



- About 35% of Ontario's surface area is covered by wetlands
- 90% are peatlands
- Ontario's peatlands store about 25% of total peatland carbon in Canada. (OMNRF, 2018)

How are we addressing these concerns?

Funding to Support Climate Monitoring and Adaptation

Environment Climate Change Canada:

- Indigenous Community Based Climate Monitoring Program
- First Nation Adapt Program
- Indigenous Guardians Pilot Program

• Climate Monitoring Program

Supports community led projects to monitor climate and the environmental effects of climate change to the community and tradition territories.

- **This year's deadline for applications is October 2021.**

• First Nation Adapt Program

Supports assessments and responses to climate change impacts on the community infrastructure and emergency management.

- **This program accepts applications year-round.**

• Indigenous Guardians Program

This is a pilot project that supported indigenous rights and responsibilities in protecting and conserving ecosystems, developing and maintaining sustainable economies, and continuing connections between Canadian landscape and Indigenous culture.

- **Fundings for this project are fully allocated and no further rounds of funding are available at this time.**

They are currently assessing the successes of community projects, and it is hopeful that this fund will become available again soon.



Indigenous and Northern Affairs Canada

Affaires autochtones et du Nord Canada



Laurentian University
Université Laurentienne



MAC
ecohydrology
McMaster Ecohydrology Lab



United Nations
Educational, Scientific and
Cultural Organization



GEORGIAN BAY
BIOSPHERE
MNIDOO GAMII
Spirit of the Water



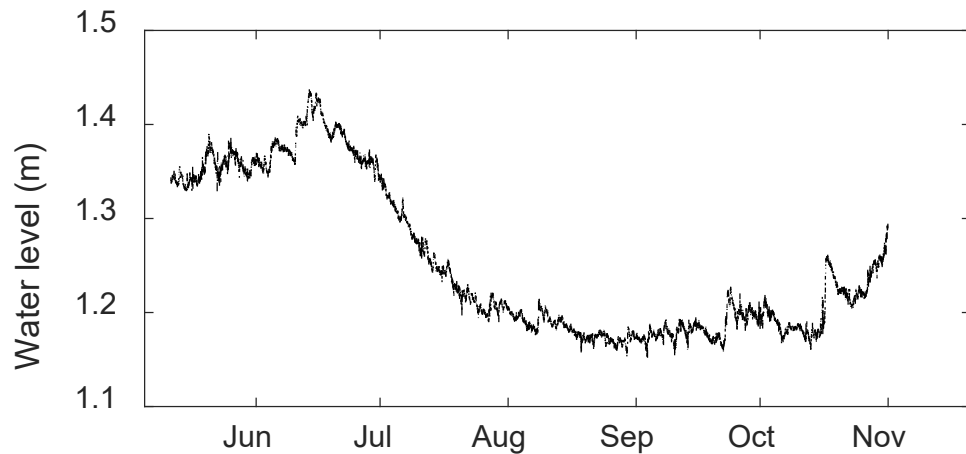
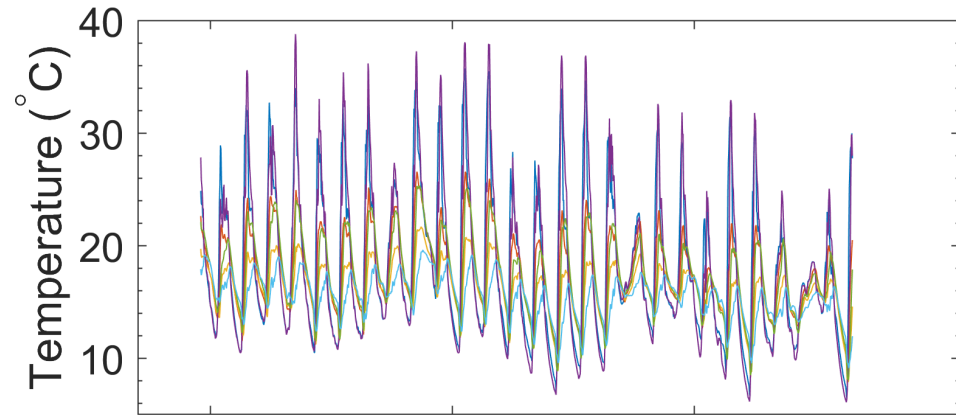
Integrating
Traditional
Knowledge and
Western Science
to Monitor the
Impacts of Climate
Change on
Culturally
Significant and at-
risk Ecology of
Indigenous Lands



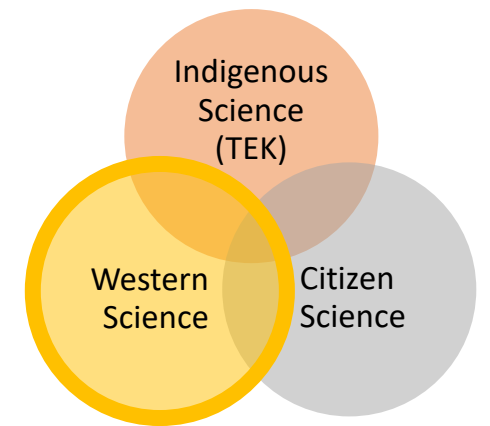
Western Science
Partnership feature:
McMaster University

- Partnered with McMaster University Ecohydrology Group
- Integrate TEK and science
- Monitor implications of climate change on culturally significant and at-risk ecology of indigenous resources
- Measuring indicator variables for SAR reptile habitat suitability

What are we measuring?



- Water level
- Peat soil temperature
- Snow depth
- Seasonal plant development
- Ecosystem fluxes
- These environmental variables are of critical importance to SAR overwintering:
 - Both snake and turtle species are sensitive to large fluctuations in water level



Climate Change Vulnerability and Adaptation Planning Framework

With the support of

Cambium Aboriginal Inc.

building a Community Based
Climate Monitoring program that
identifies the individual needs of
our community.



Magway East Station

Magway West Station
Mogoke



River Monitoring

- Water Quality
- Water Quantity
- Relationship Building with Magnetawan Watershed communities and industries



- Why your lands should be monitored and protected
- Some of the types of funds available to support monitoring and protection
- What projects you can create in your communities to combat climate change

Gchi Miigwech!



Climate Change Workshop

Power to the People





T'Sou-ke Solar from the Air



Demonstrating Off-Grid Summer setting



Administration using Net Zero Energy. Demonstrating the future.



Solar array 'feed in' to Utility



T'Sou-ke trainees completing PV Array on back of Canoe Shed



Trainees receiving certificates from Ida Chong BC Energy Minister



All our meters run backwards!



Recharging Electric Vehicles from Solar Array at T'Sou-ke Nation.



Conservation workshops with School children from SD 62



Conservation Convert Haida Gwaii



Earth Challenge

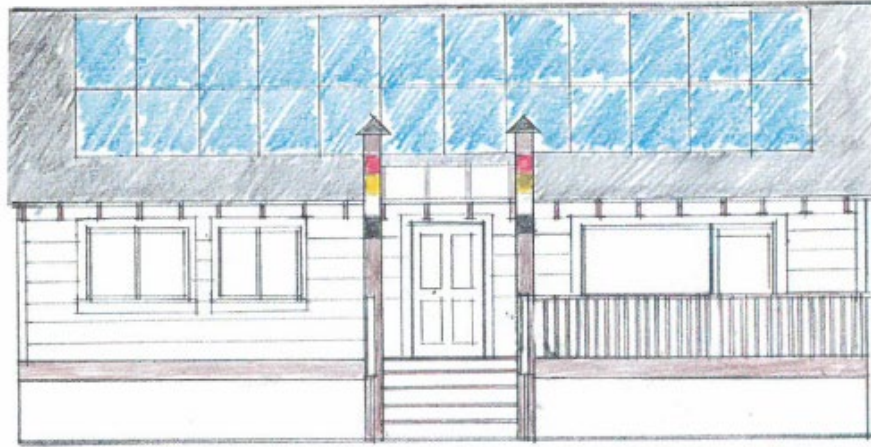


Ginger Bread House with Solar Panels



SOLAR OPPORTUNITIES - NET ZERO HOUSE ON RESERVE

FRONT ELEVATION • NET ZERO HOME • T'SOU-KE NATION SCALE 1:50



PLAN • NET ZERO HOME AT T'SOU-KE NATION 1:50



SIDE ELEVATION • NET ZERO HOME • T'SOU-KE NATION SCALE 1:50



Transforming Challenges into Opportunities

Reduced Energy Bills for Members.
Energy Autonomy for T'Sou-ke Nation
Training & Jobs



Eco Tourism Business
Economic Development
Education & Communication Outreach

Thank You





Williams Lake
FIRST NATION

TMPD Virtual Workshop:
Community Perspectives on Climate Change

Let's get situated.



Williams Lake
FIRST NATION





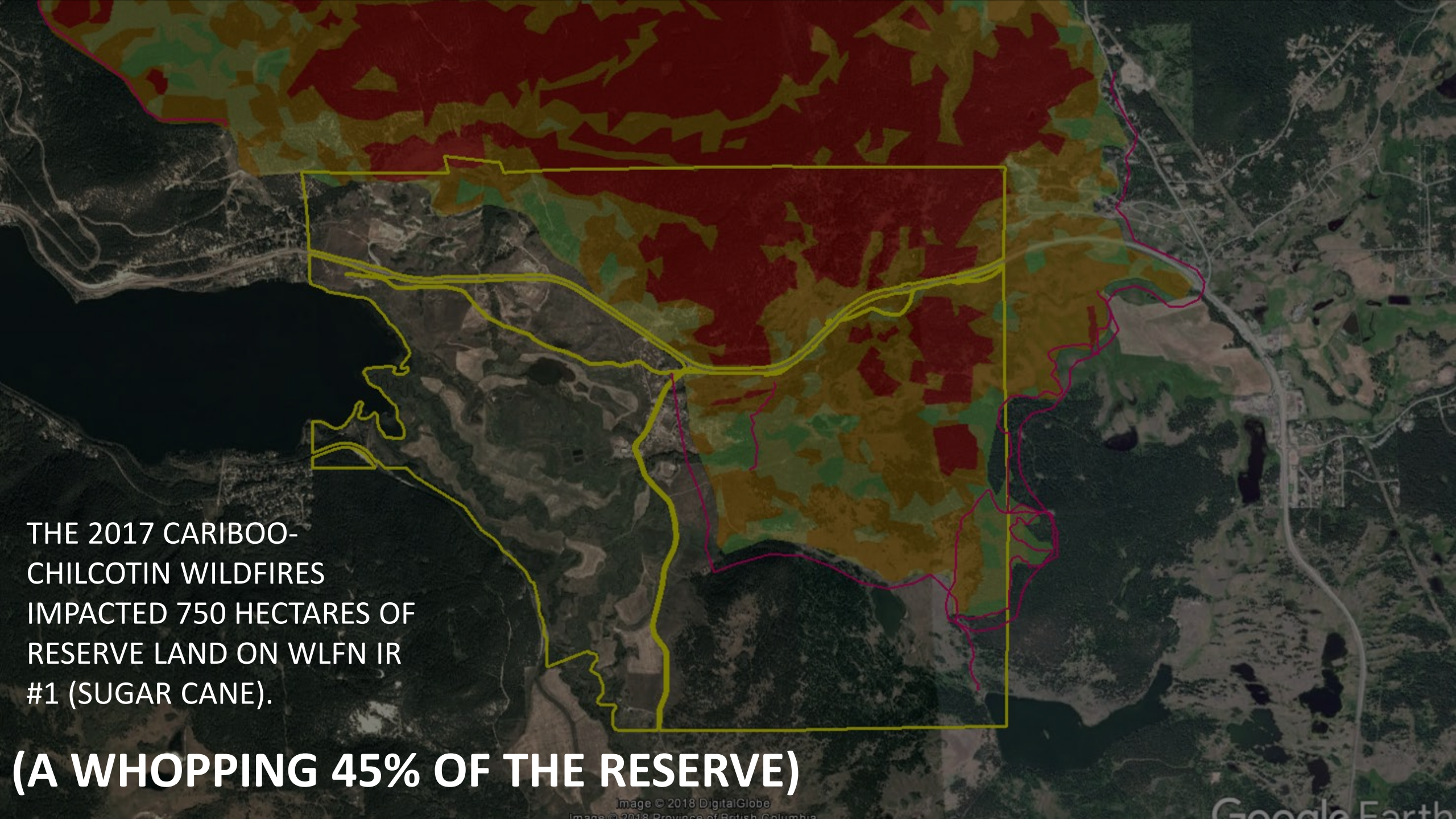
Williams Lake
FIRST NATION

The Williams Lake First Nation (WLFN), or the T'exelcenc (people of WLFN) have belonged to the Secwepemc (or Shuswap) Nation for over 6500 years.

Today, the WLFN community includes a growing population of over 800 registered members who live on reserve in Sugar Cane, in nearby Williams Lake, BC, and across the globe.

One of 17 Secwepemc nations forming Secwepemculecw, the greater stewardship land area extends from Shuswap Lake in the south, to Quesnel Lake in the north, and from Columbia-Kootenay Range in the east, to the Alexis Creek area in the west.

In 2017, unprecedented wildfires ripped across the traditional territory and reserve lands of Williams Lake First Nation, resulting in a complete evacuation.



THE 2017 CARIBOO-
CHILCOTIN WILDFIRES
IMPACTED 750 HECTARES OF
RESERVE LAND ON WLFN IR
#1 (SUGAR CANE).

(A WHOPPING 45% OF THE RESERVE)



Joey Thomas of Williams Lake Indian Band lost his home in the wildfire that raged through the Sugar Cane community last Friday. Monica Lamb-Yorski photo.

VIDEO: Home lost in Sugar Cane wildfire

Williams Lake Indian Band member Joey Thomas's home was destroyed by the Sugar Cane wildfire last Friday.

MONICA LAMB-YORSKI / Jul. 14, 2017 6:00 p.m. / NEWS



UPDATE: Wildfires grow around Williams Lake Saturday

The biggest fire to note is near Sugarcane, north of Chief William burning at 2,000 hectares

ASHLEY WADHWANI / ANGIE MINDUS / CARMEN WELD / Jul. 8, 2017 6:30 a.m. / NEWS



All three wildfires surrounding Williams Lake remain "out of control," according to B.C. Wildfire Services.

The wildfire near Sugarcane, 1-kilometre north of Chief William is now estimated at 2,500 hectares in size.

NEWS

Wildfire takes its toll on Williams Lake Indian Band

SHARE ON:

Shannon Waters, contributor, Friday, Jul. 14th, 2017



Rebecca Kelli, My Cariboo Now

There were no lives lost but lots of damage was done to the Williams Lake Indian Reserve by the wildfire that roared through the area on Friday.

It went down the hill above Reserve #1 and quickly spread around Coyote Rock Golf Course and eventually hopped the Highway and went through the community threatening homes, government buildings, recreational facilities and schools.

Williams Lake Indian Band members were evacuated just in time, many having only a few moments to grab a few basic possessions.



Photo Credit: Kamloops NOW



Photo Credit: Williams Lake First Nation



Photo Credit: Williams Lake Tribune



Photo Credit: Cantex-Okanagan Construction



Photo Credit: Williams Lake Tribune

Post Fire Consequences:

Damage Erosion Flooding Landslides

Invasive Plants Sloughing Runoff

Loss of Traditional Use Values

Impacts to Mental Health & Wellness



Photo Credit: Williams Lake First Nation



Photo Credit: Sugar Cane Archaeology



Photo Credit: Sugar Cane Archaeology

IN-DEPTH

How the Williams Lake flood in B.C. is linked to wildfire and deforestation

Water-repellent forest floors, soil erosion and a lack of tree cover all influence how snowpack melts in the spring



Natalia Balcerzak, Local Journalism Initiative reporter • May 5, 2020

🕒 9 min read

The arrival of spring brought a surge of warm weather to Williams Lake, in the Cariboo region of B.C., and with it a rush of meltwater from the region's snowpack. The resulting floods caused a local state of emergency, the contamination of water with sewage and the evacuation of 86 residences — a significant hardship for families given the COVID-19 pandemic.

“We haven't really been anticipating anything like this. ... So far the damage that we've had has been catastrophic,” Williams Lake chief administrative officer Milo Macdonald told The Narwhal.

“These are really unprecedented flows.”

The combination of warm weather and a higher-than-average snowpack in the nearby mountains serves as partial explanation for the region's biggest flood in approximately 200

<https://thenarwhal.ca/how-the-williams-lake-flood-is-linked-to-wildfire-and-deforestation/>





Photo Credit: Brittany Cleminson



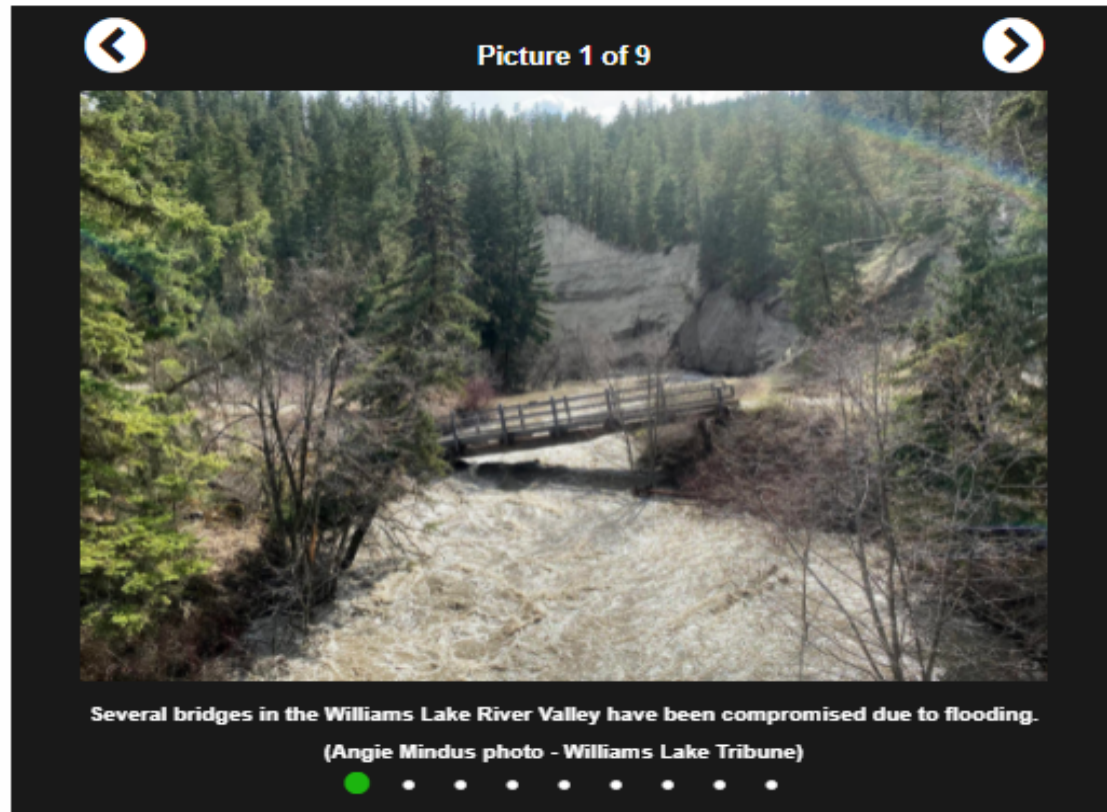
Photo Credit: Brittany Cleminson



Photo Credit: Brittany Cleminson

State of emergency declared in Williams Lake due to flooding, erosion in River Valley

MONICA LAMB-YORSKI / Apr. 24, 2020 1:30 p.m. / LOCAL NEWS / NEWS



An evacuation order for 11 industrial properties on Frizzi Road and the River Valley trail and a local state of emergency have been declared in Williams Lake due to flooding and erosion in the River Valley.

Environmental Emergency Program

- ▶ Report a spill
- ▼ Spill incidents
 - Past Spill Incidents
- ▶ Roles and responsibilities
- ▶ Environmental emergency legislation
- ▶ Planning, prevention & response
- Regulations
- ▶ Engagement
- Annual reports

Williams Lake Creek Sewage Spill

DISCLAIMER: Information provided is based on reports received by Emergency Management B.C. Information provided is considered to be current at the time of posting, but is subject to change as new information becomes available.

Incident Description

Incident Date	April 26, 2020
Name	DGIR: 200295
Source	Sewage
Nearest Community	Williams Lake
Spilled Content	Sewage
Who is involved?	B.C. Ministry of Environment and Climate Change Strategy, City of Williams Lake, Williams Lake Indian Band, Tšilhqot'in Nation, Esk'etemc Band, Xatšúll Soda Creek First Nations, Northern Shuswap Tribal Council, First Nations Health Authority, Interior Health Authority, Emergency Management B.C., Fisheries and Oceans Canada (DFO), Environment and Climate Change Canada

Response Phase Detail

The responsible person or spiller is legally required to clean-up or manage the clean-up of a spill. In incidents where the responsible person is



Photo Credit: Brittany Cleminson

oktane21

It's Not Over Until It's Over
Oktane21 is Now On Demand

British Columbia

Williams Lake landslide sends equivalent of 75,000 truckloads of debris into river; 3 properties evacuated



City councillor says heavy rains could have caused even worse damage

CBC News - Posted: Nov 01, 2020 12:49 PM PT | Last Updated: November 1, 2020



3 properties were evacuated after following a landslide that sent 75,000 truckloads of debris into the river on Oct. 31. Williams Lake Coun. Scott Nelson says at some point the properties near Frizzi Road will no longer have any land because it keeps eroding. (Submitted by Scott Nelson)

A landslide in an industrial area northwest of downtown Williams Lake, B.C., has prompted an evacuation order for three properties and the entire River Valley Trail.

Williams Lake
FIRST NATION

JOINT MEDIA RELEASE

For Immediate Release

June 26, 2020

Crews Continue Rebuilding Roads, Sewer Infrastructure in River Valley

Crews continue to rebuild road access and armour river banks in the River Valley, as part of an ongoing strategy to mitigate damage caused by significant flooding on April 23 that ruptured a sewage line connected to the City of Williams Lake's sewage treatment lagoons near Williams Lake Creek.

The work has been part of a massive mobilization effort initiated by a Unified Command at the Emergency Operations Centre, involving the City of Williams Lake (COWL), Williams Lake First Nation (WLFN), Emergency Management British Columbia (EMBC) and B.C. Ministry of Environment and Climate Change Strategy (MOE).

The Unified Command group was established to share information through daily coordination calls to keep all parties apprised of all aspects of the situation. The Unified Command group has led the emergency response work, cooperating with additional agencies in an effort to protect residents and the affected environment.

EMBC is transitioning back to their regional coordination role for site support and providing a Liaison for the Unified Command. Unified Command is now comprised of WLFN, MOE and COWL. Unified Command would like to recognize the team at EMBC for their multi-agency coordination, support, and hard work during this complex emergency response.

The ruptured sewage pipe is being repaired, in hopes of halting the flow of treated effluent into the river, while an independent contractor has been hired to collect water and soil samples for testing. They have been sampling since April 28.

The work is anticipated to continue throughout the summer. Updates will be provided weekly by the Unified Command.

**So, what have we done to
address these issues?**

Infrastructure Projects

Borland Creek Overflow Channel



Asahal Creek Drainage Channel



Sutton Road Drainage Channel





- Over \$1,000,000 invested into flooding mitigation and recovery projects in 2020.
- Participation in joint Unified Command structure with local and provincial government agencies to manage response.
- Collaborative work with Indigenous Services Canada, Emergency Management BC, the Ministry of Transportation, and a host of regional partners.

Cultural and Environmental Stewardship

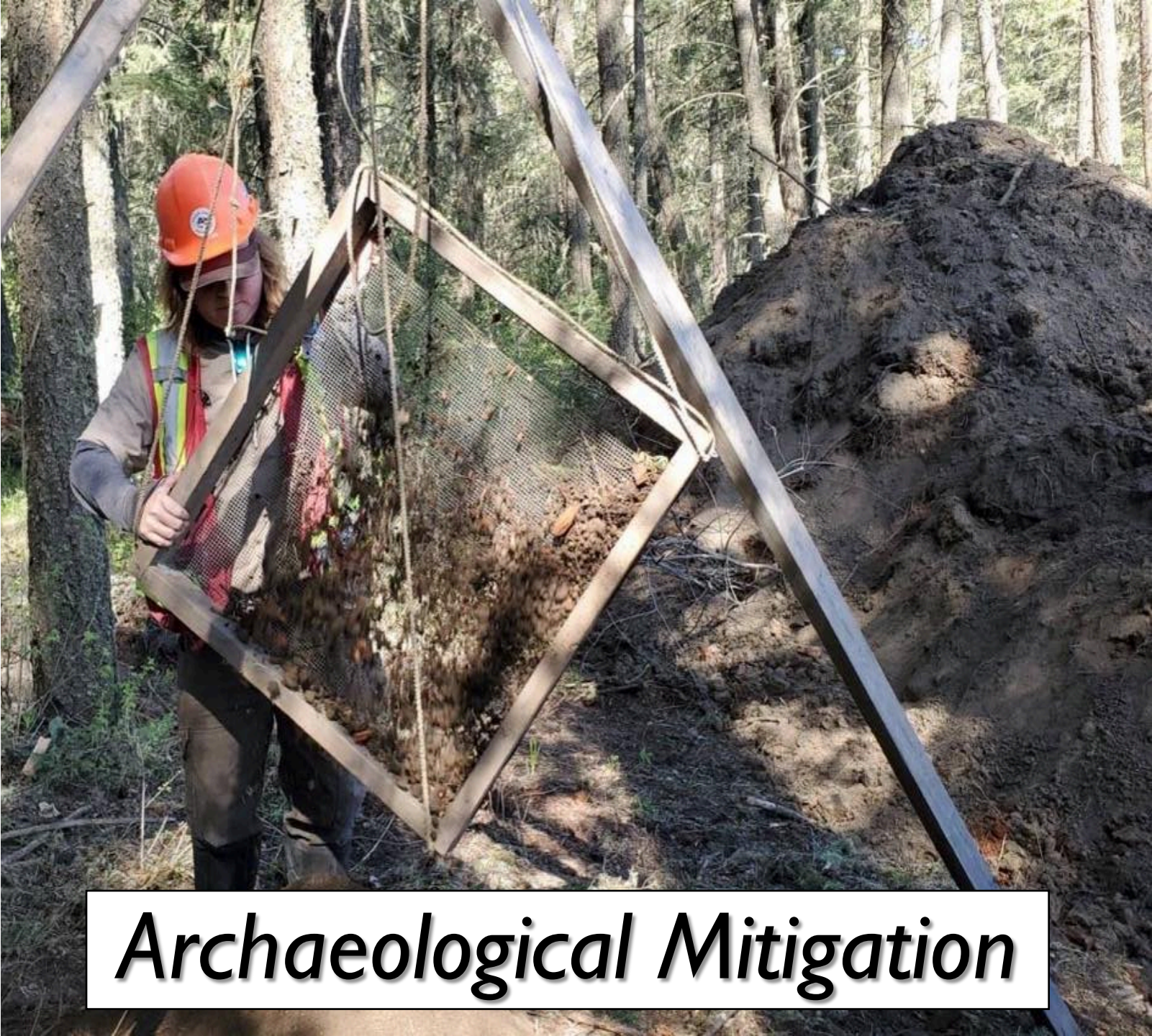
River valley flooding destroys archaeological sites, uncovers others

REBECCA DYOK, LOCAL JOURNALISM INITIATIVE REPORTER / May. 12, 2020 5:30 p.m. / LOCAL NEWS / NEWS



Flooding in the Williams Lake River Valley has washed away thousands of years of Indigenous history while unearthing others.

Since a pollution abatement order was issued to the City of Williams Lake by the Williams Lake Indian Band (WLIB) on April 30, WLIB manager of title and rights Whitney Spearing said DWB Consulting from Lac La Hache has been working



Archaeological Mitigation



Post-Impact Assessments



Systematic Data Recovery



Indigenous guardians play a vital role in creating and implementing land-use and marine-use plans, says the Government of Canada. (Rebecca Dyok photo)

Williams Lake First Nation to launch Indigenous guardian pilot program

Project chosen out of more than 100 proposals across Canada

REBECCA DYOK, LOCAL JOURNALISM INITIATIVE REPORTER / Sep. 14, 2020 6:00 a.m. / LOCAL NEWS / NEWS



They will be the eyes and ears on the ground.

Indigenous guardians will be coming to a First Nations community near Williams Lake.

Williams Lake First Nation (WLFN) is one of 10 communities across the country this summer to receive \$60,000 in funding from the Government of Canada under the First Nations tier one stream of the Indigenous Guardians Pilot Program.



Environmental Monitoring



Pollution Abatement Order Issued To The City Of Williams Lake

SHARE ON: [f](#) [t](#) [g+](#) [p](#)

 Pat Matthews, staff  Friday, May. 1st, 2020



 (supplied by Williams Lake Indian Band)

The Williams Lake Indian Band issued a Pollution Abatement Order yesterday to the City of Williams Lake regarding the sewage effluent into the Williams Lake River Valley and the Fraser River.

In a media release, Chief Willie Sellars said “We had no choice but to issue this order, given the lack of engagement and dialogue with the Ministry of Environment. We recognize that this is an emergency situation and not one that the City of Williams Lake was able to prevent”.

Sellars added, “We know the City is doing what it can, but the Ministry of Environment and the Province of British Columbia does not seem to approach this incident, or it’s obligations to WLIB, with sufficient gravity”.

The Williams Lake Indian Band has a reserve at the mouth of Williams Creek at the confluence with the Fraser River.

Sellars said “The discharge is running right through our lands. The Fraser River is a key fishery for the people of the Williams Lake Indian Band”.

Environmental Mitigation



Replanting Traditional Foods

Forest Management Initiatives

First Nations' forestry projects generate jobs, green energy

Share



News Release

Williams Lake

Thursday, July 16, 2020 7:30 AM

Media Contacts

Ministry of Forests, Lands, Natural
Resource Operations and Rural
Development

Media Relations
250 356-7506

John C. Walker

Stewardship Forester
Williams Lake First Nation
john.walker@williamslakeband.ca
778 417-0182

Aleece Laird

Communications Liaison
Forest Enhancement Society of BC
communications@fesbc.ca
250 574-0221

More from this Ministry

• Factsheets & Opinion Editorials

Visit Ministry Website

Forest Enhancement Society of BC (FESBC) grants are supporting the Williams Lake First Nation (WLFN) as it creates jobs, fights climate change and reduces wildfire risk near its community.

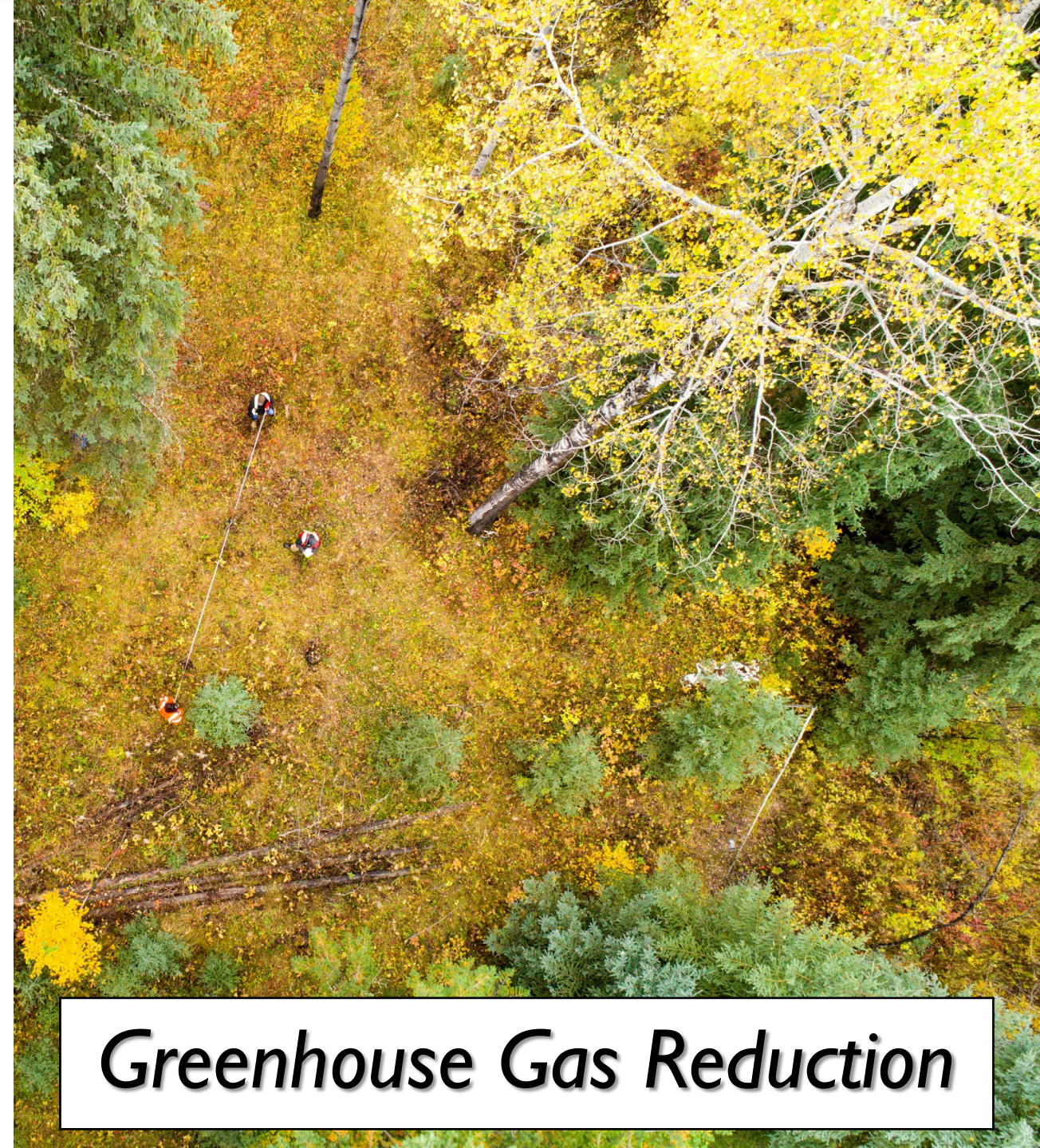
To date, grants have supported the removal of 64,000 cubic metres of slash (debris from forest fires) and over the next two years, the total will reach 200,000 cubic metres.

The ongoing project is also creating an estimated 26 jobs for both the WLFN and the T̓ideldel First Nation (TFN), which has partnered to grind the debris on site and ship it to local markets.

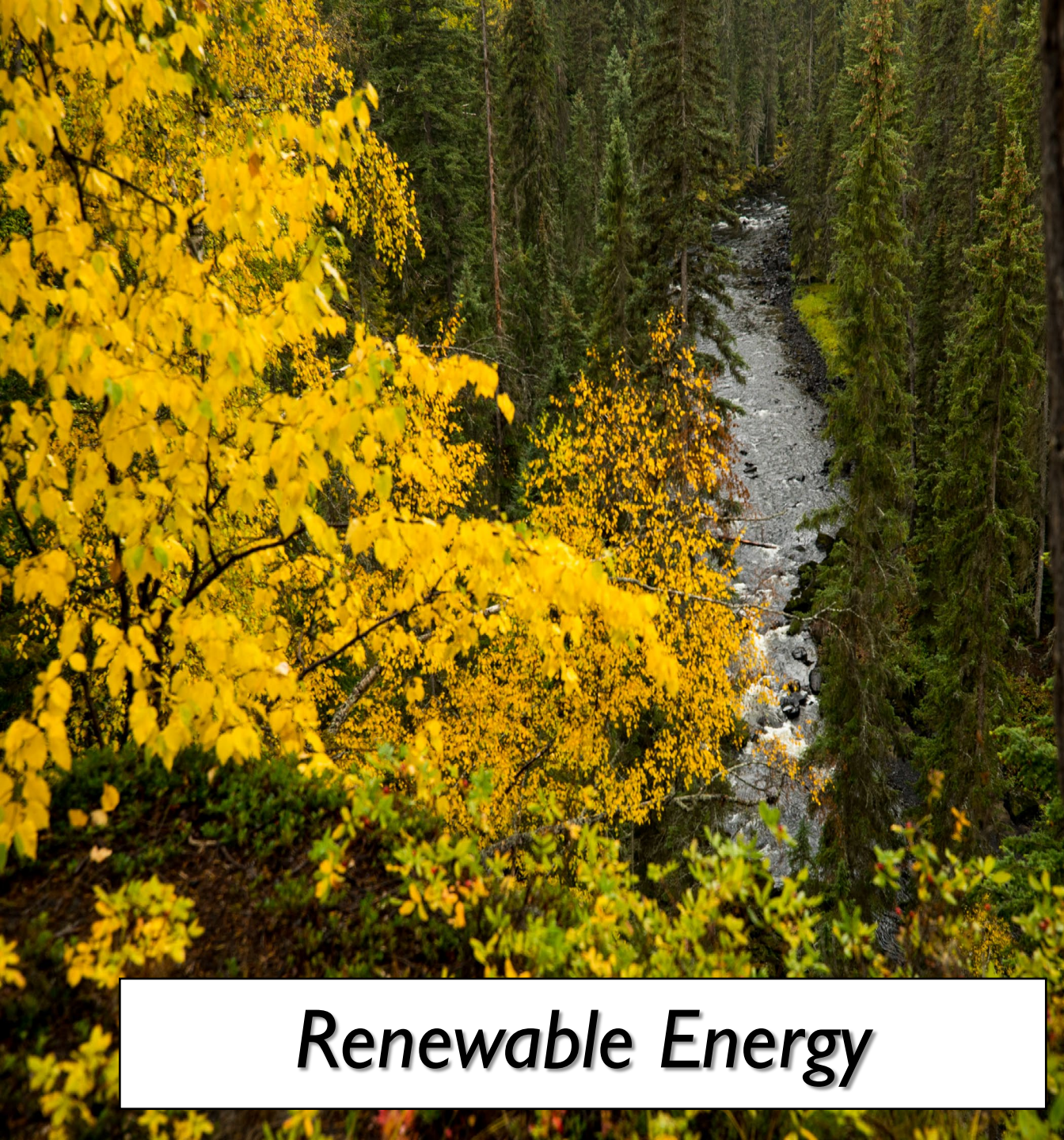
“The WLFN have partnered with the TFN on this unique ongoing project that is seeing slash piles turned into biomass fuel instead of burning them,” said Doug Donaldson, Minister of Forests, Lands, Natural Resource Operations and Rural Development. “This green-energy project is reducing greenhouse gas emissions and building new economic opportunities for both communities while contributing to B.C.’s clean energy plan.”

Three FESBC grants between 2017 and 2019, totalling more than \$3 million, allowed WLFN to develop an ongoing program and enabled it to build several partnerships to grind the debris at site and truck it to local markets. One of the most significant partnerships was with the TFN contractor, Tsi Del Biomass Ltd., which brought logging and grinding experience to the project.

Typically, slash from wildfire salvage logging is piled and burned at site because transportation is cost prohibitive. Burning slash piles increases smoke in local airsheds and increases greenhouse gas emissions.



Greenhouse Gas Reduction



Renewable Energy



Slash that would be normally be burned is being transported to local markets in Williams Lake through an ongoing project by the Williams Lake First Nation who has partnered with Tsideldel First Nation to grind the debris on site. "Not removing the piles of debris could contribute to a very intense fire - obviously undesirable adjacent to the community," said consulting forester Ken Day with KDay Forestry Ltd. (Monica Lamb Yorski photo)

First Nations project to remove biomass for markets in Williams Lake continues

The fibre will be used by Pinnacle Renewable Energy and Atlantic Power

REBECCA DYOK, LOCAL JOURNALISM INITIATIVE REPORTER / Jul. 16, 2020 11:25 a.m. / LOCAL NEWS / NEWS



A forestry project by two B.C. First Nations in the Central Interior continues to fight climate change and reduce wildfire risk while creating jobs.

Grants to date by the Forest Enhancement Society of BC (FESBC) have supported the Williams Lake First Nation (WLFN) in partnering with the Tsideldel First Nation (TFN) to remove 64,000 cubic metres of slash (debris from forest fires) in the region.

Cariboo benefits from provincial wildfire prevention money

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 George Henderson, staff  Monday, Mar. 9th, 2020



 -Photo: BC Wildfire Service

The City of Quesnel is getting more than 275 thousand dollars from the provincial government to help reduce the risk and impact of future wildfires in the community.

The money is broken down into two parts.

Lacy Scuffi is the City's Forestry Initiatives Coordinator...

"We've awarded 150 thousand dollars to advance Fire Smart, and we're going to use that to organize outreach events such as wildfire preparedness day, and support home and business owners to assess and treat their properties."



Fuel Management



Replanting Natural Stands



Invasive Plant Management

Emergency Preparedness



- \$250,000+ invested in increasing emergency response capacity
- \$50,000+ invested in new equipment
- \$50,000+ invested in Safety and Emergency Plan updates
- \$25,000+ invested in accredited emergency management training for EOC Staff
- Emergency Operations Department created in 2020



Questions?



Williams Lake
FIRST NATION



Magnetawan First Nation
Samantha Noganosh



T'Sou-ke First Nation
Andrew Moore



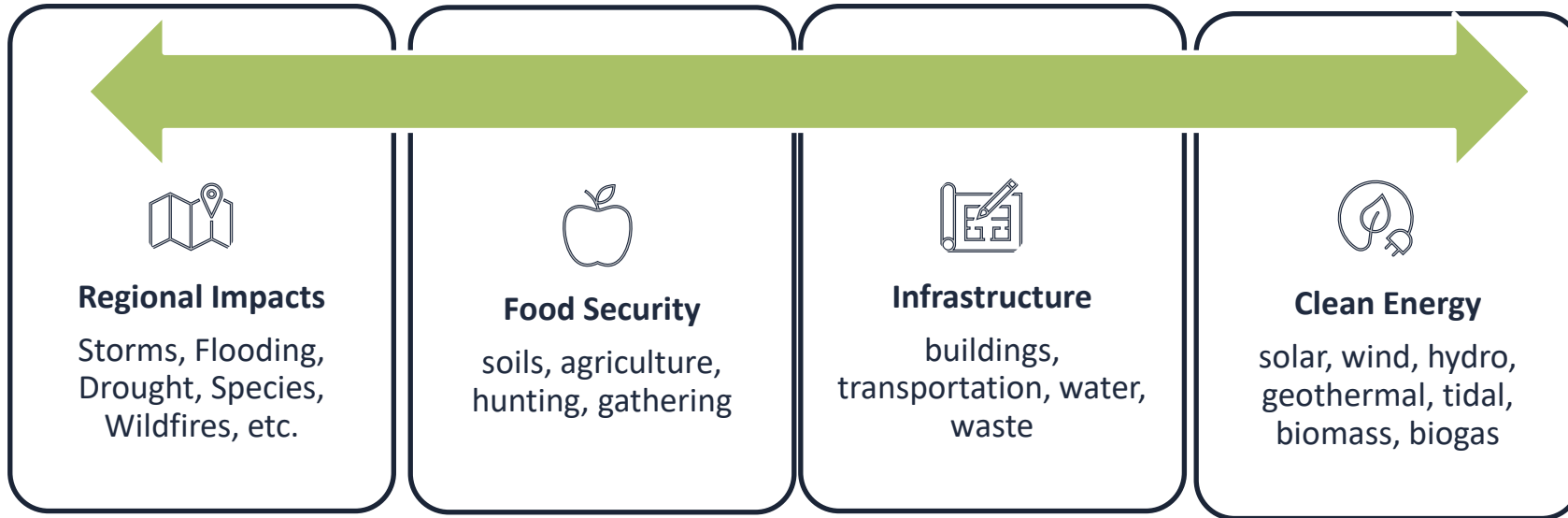
Williams Lake First Nation
Brittany Cleminson



Group Discussion

Has your Land Code affected or influenced your climate change related activities and actions in any way?

- What climate change impacts are being identified in your community?
- How is your community actively planning to address current and future impacts?



ADD LIVE POLL RESULTS





RC Regional Discussion Groups



Climate Change & First Nation Communities

RC presentation by
Stefanie Recollet



Impacts of Climate Change on First Nations

Key Points:

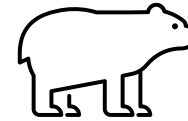
- Each community affected differently
- Unpredictability can make adaptation a challenge
- Land knowledge & Cultural Identity closely tied
- Harvesters & Land Users are noticing changes in Keystone Species
- Some Regional Impacts can be Mitigated
- Adaptation efforts will need to vary Region to Region



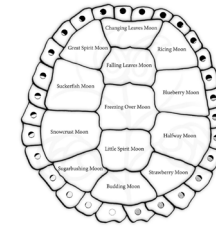
Traditional Ecological Knowledge (TEK) in Land Governance & Climate Change

- Indigenous Knowledge can (& should) inform decision-making
- Protect Indigenous Rights & Interests
 - Traditional Harvesting (Hunting, Fishing and Gathering)
 - Ceremonial Sites & Cultural Assets
- Helps to understand the value of land
- Ensure Resource Development activities carried out respectfully with the least impact

Medicines Knowledge



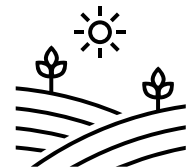
Culture



Harvesting



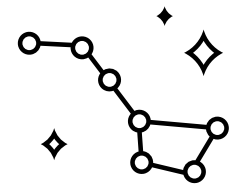
History of Community



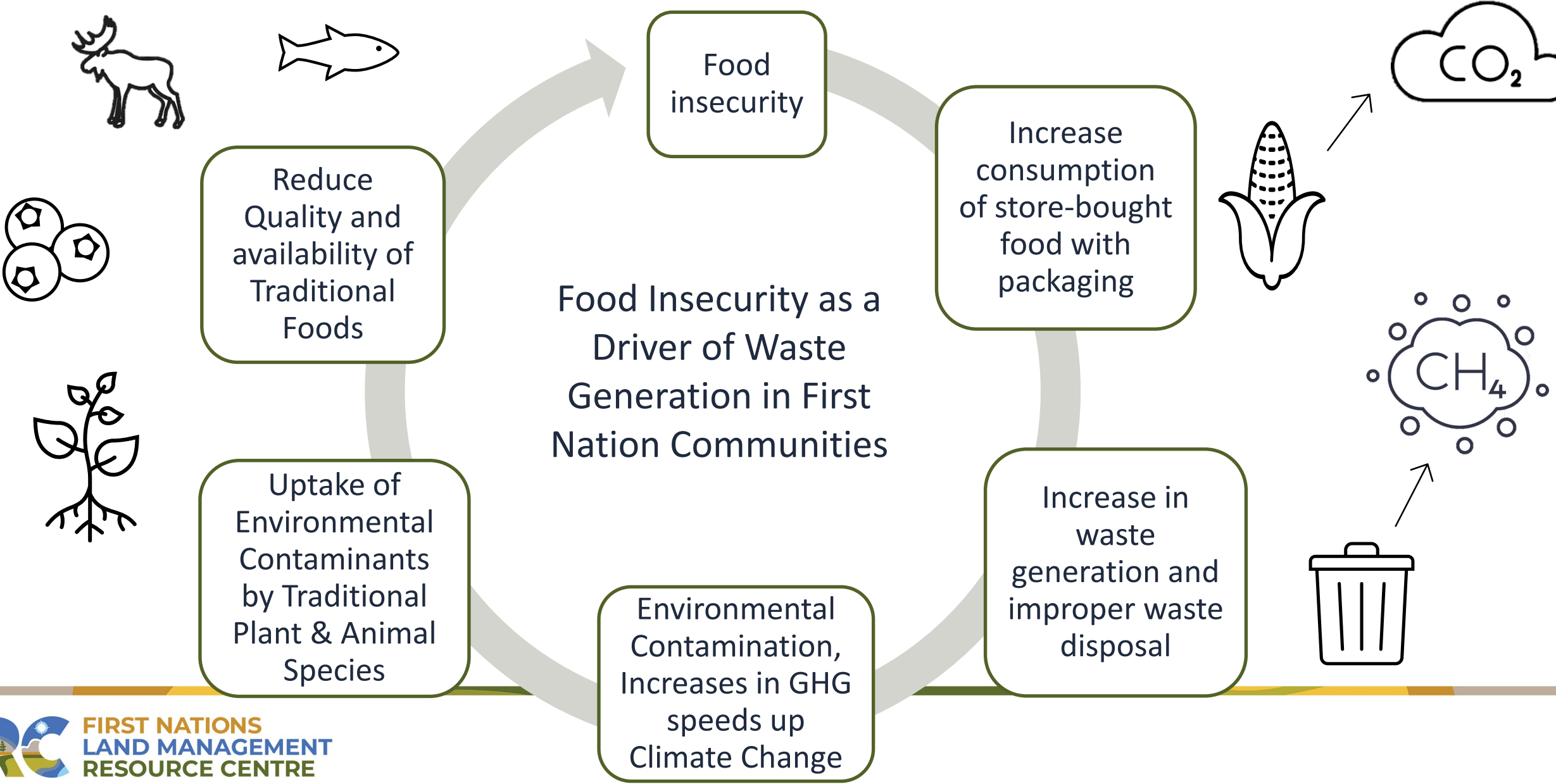
Mapping of Territories



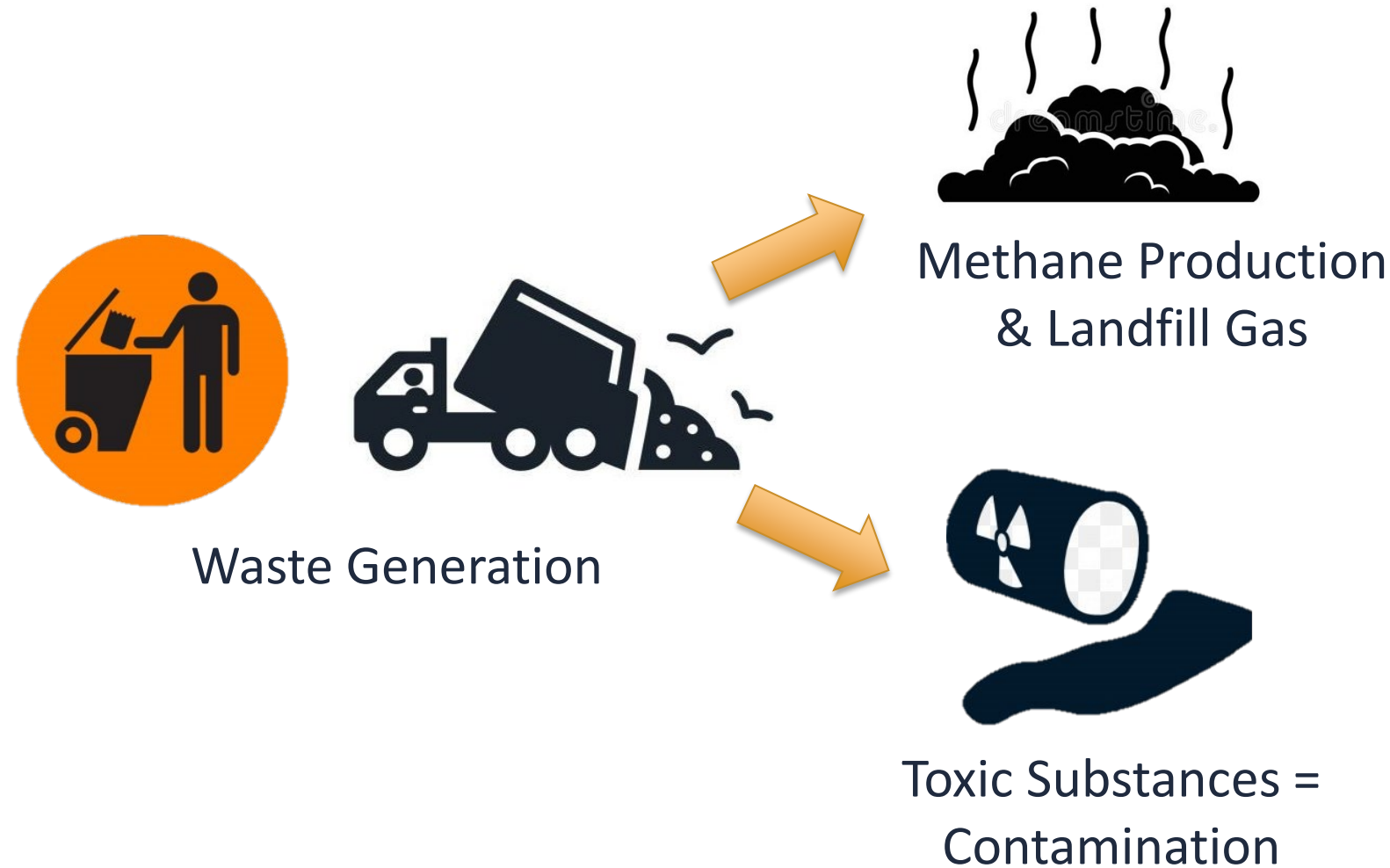
Traditional Place Names



Climate Change, First Nation Food Insecurity & Waste Generation



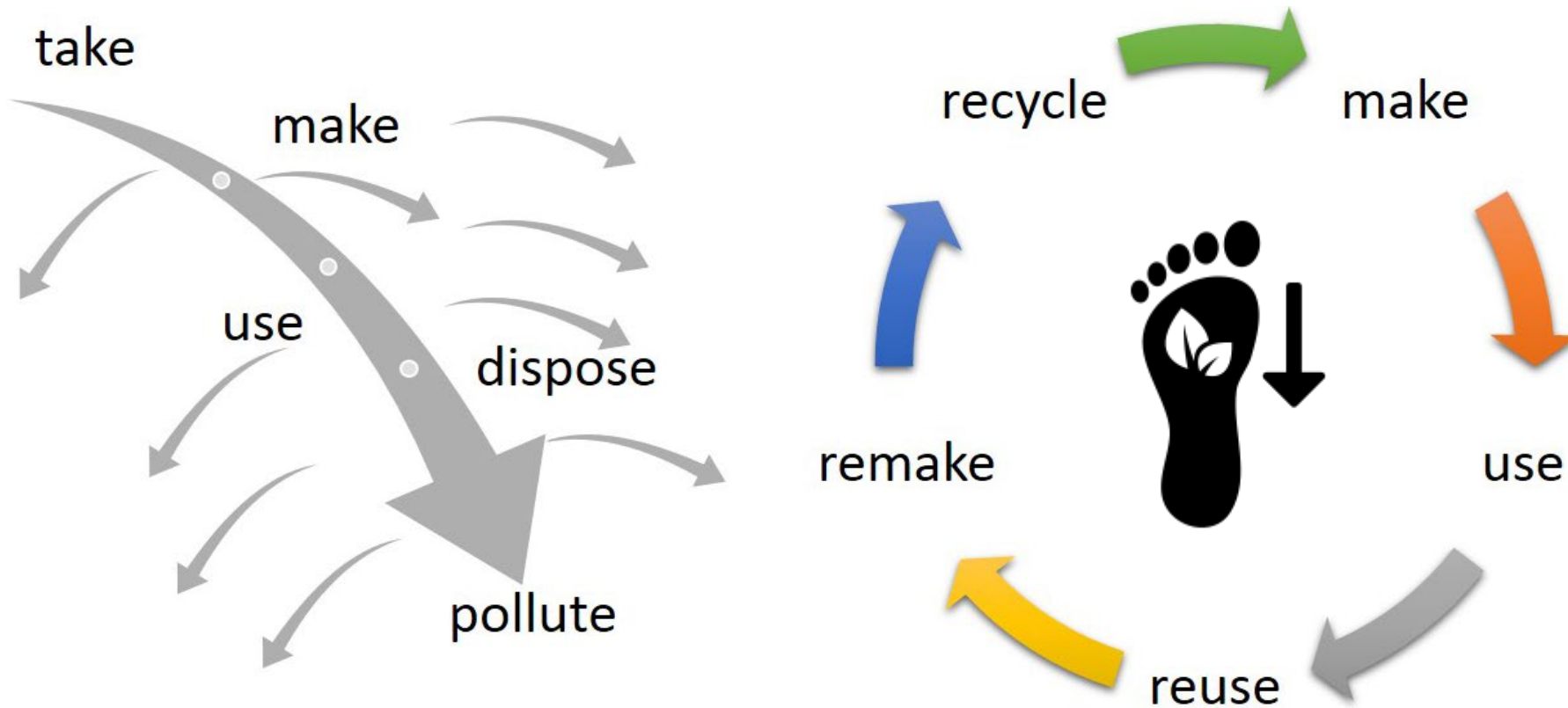
Climate Change & First Nation Issues in Solid Waste



First Nation Solid Waste Issues:

- Landfills/ Community waste sites at or near capacity
- Lack of Environmental Protections (Regulatory Gap On/Off Reserve)
- Limited Waste Diversion Opportunities

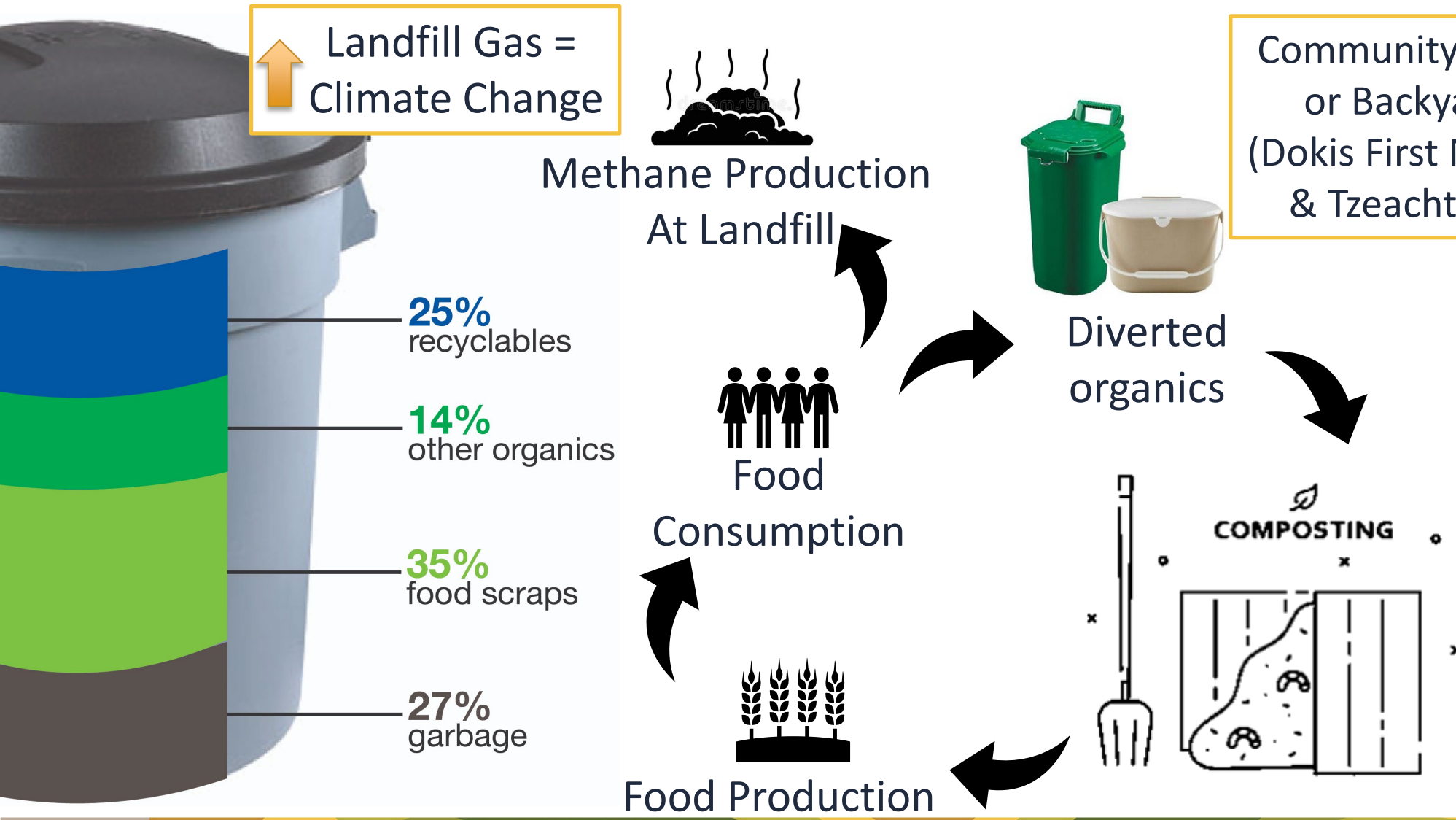
Building Resilience: Circular Economy & Indigenous Brilliance



First Nation Innovation
in Resource Recovery:

- Canupawakpa Dakota Nation's Plastic Reuse Pilot Project
- Construction Waste Reuse
- Old Boat Demolition & Recovery
- Fish Waste

Building Resilience: Organic Waste Diversion & Food Security



Community scale
or Backyard
(Dokis First Nation
& Tzeachten)



Gardens = food security

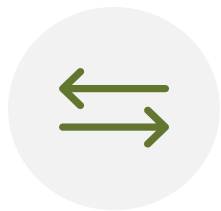
Planning Tools to Address Climate Change

RC presentation by

Adam Wright
Chantal Kitamura
Jennifer Predie



- Climate change has a growing impact on First Nations Communities in Canada, depleting food sources and affecting health.
 - Canada as a whole is contributing to the climate crisis, but First Nations peoples feel these impacts acutely resulting from their reliance on and connection to the land.
- Land Use Planning, Environmental Management Planning and other planning tools can help prepare for and respond to impacts from Climate Change through the creation and continuance of resilient Communities.



ADAPTING TO CHANGE



CONSENSUS BUILDING

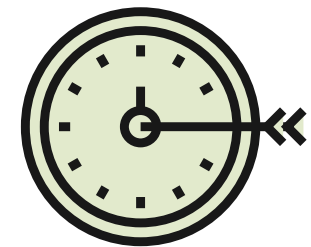


WORKING WITH
PARTNERS



COMMUNITY INPUT

- Land Code First Nations are well positioned to respond to Climate Change:
 - **Create enforceable guidelines in direct response to climate change related issues for your Community**
 - E.g., design guidelines to support green design, resilient infrastructure, active transportation, etc.
 - Opportunities for collaboration with regional partners and First Nations in the development of guidelines (e.g., Guardianship Governance).
 - **Lands Governance enables a timely response**
 - Although Climate Change is typically viewed as a ‘Long-Term’ issue, there are various efforts that can be taken immediately to begin addressing impacts relating to climate change (e.g., protection of wetlands, forests and cultural lands, reduction in energy consumption, recycling, Community gardens).



- Land Code First Nations are well positioned to respond to Climate Change based on the following:
 - **Ability to create LUPs and EMPs and associated Laws in response to direct issues**
 - Create plans and associated laws to address Climate Change issues
 - E.g., Active Transportation Plans, Community Energy Plans, Forest Management Plan, Disaster Mgmt. Plans / Policy
 - Create plans and associated laws on special topics that are relevant to your Community
 - E.g., Storm Water Management Plan, Wetland Protection Plan, Invasive Species Response Plan, Cultural Heritage Plans, Development Permits / Policy



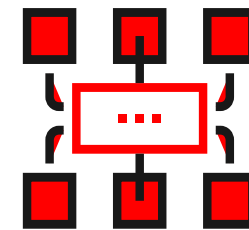
GROWTH



BALANCE

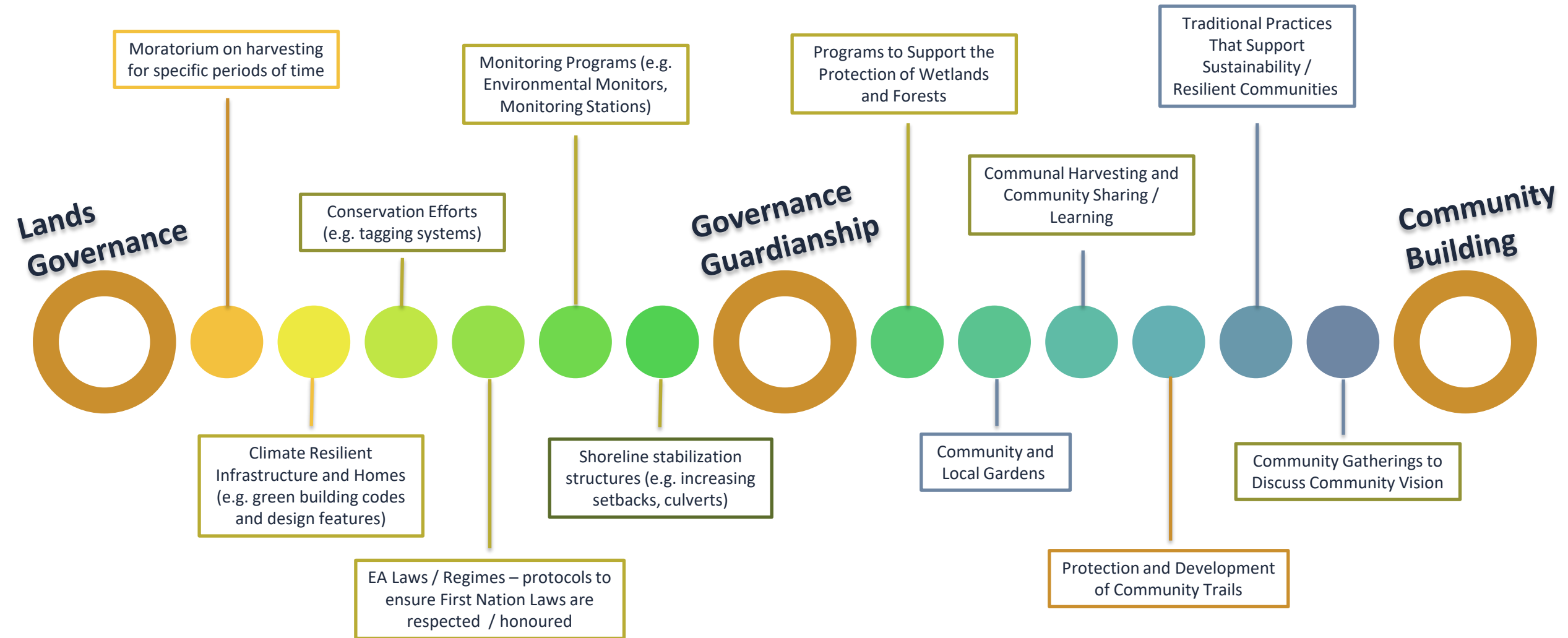


STRATEGY



PLANNING

Lands Governance and Community Building



Key Planning Tools to Address Climate Change



Monitoring and Conservation

- Water quality & quantity
 - (E.g., temperature, sea level rise)
- Fisheries assessments
- Air quality
- Shoreline erosion
- Species population & distribution
 - (E.g., Culturally significant species, medicines, species at risk, invasive species)
- Seasonal timing of plants and animals
 - (E.g., breeding, migration)
- Conservation of resources
 - (E.g., Sustainable Forest Mgmt., Wetland Protection / Enhancement)



Plans, Policies and Laws

- Incorporating climate change into Land Use Plans (LUP), Zoning and Environmental Management Plans (EMP)
 - (E.g., Tsleil-Waututh Nation LUP, Shawanaga EMP)
- Incorporation of climate change into special topic plans
 - (E.g., Forest Management Plan)
- Land Laws
 - (E.g., EA Regimes, Development Permits, Building Codes to support Green Infrastructure/Design)



Education Programs

- Build Community awareness of Climate Change and what it looks like “on the ground” (E.g., invasive species, variable weather, water quality).
- Share Traditional Knowledge and practices with Community
- Discuss personal choices and the actions that your Community can do “on the ground”. (E.g., reduce energy consumption, reduce waste, grow our own food, etc.).

Involving Your Community in Planning Processes

- LUP's and EMP's and other planning processes include extensive community engagement
- This is a great opportunity to speak with your community about **climate change**



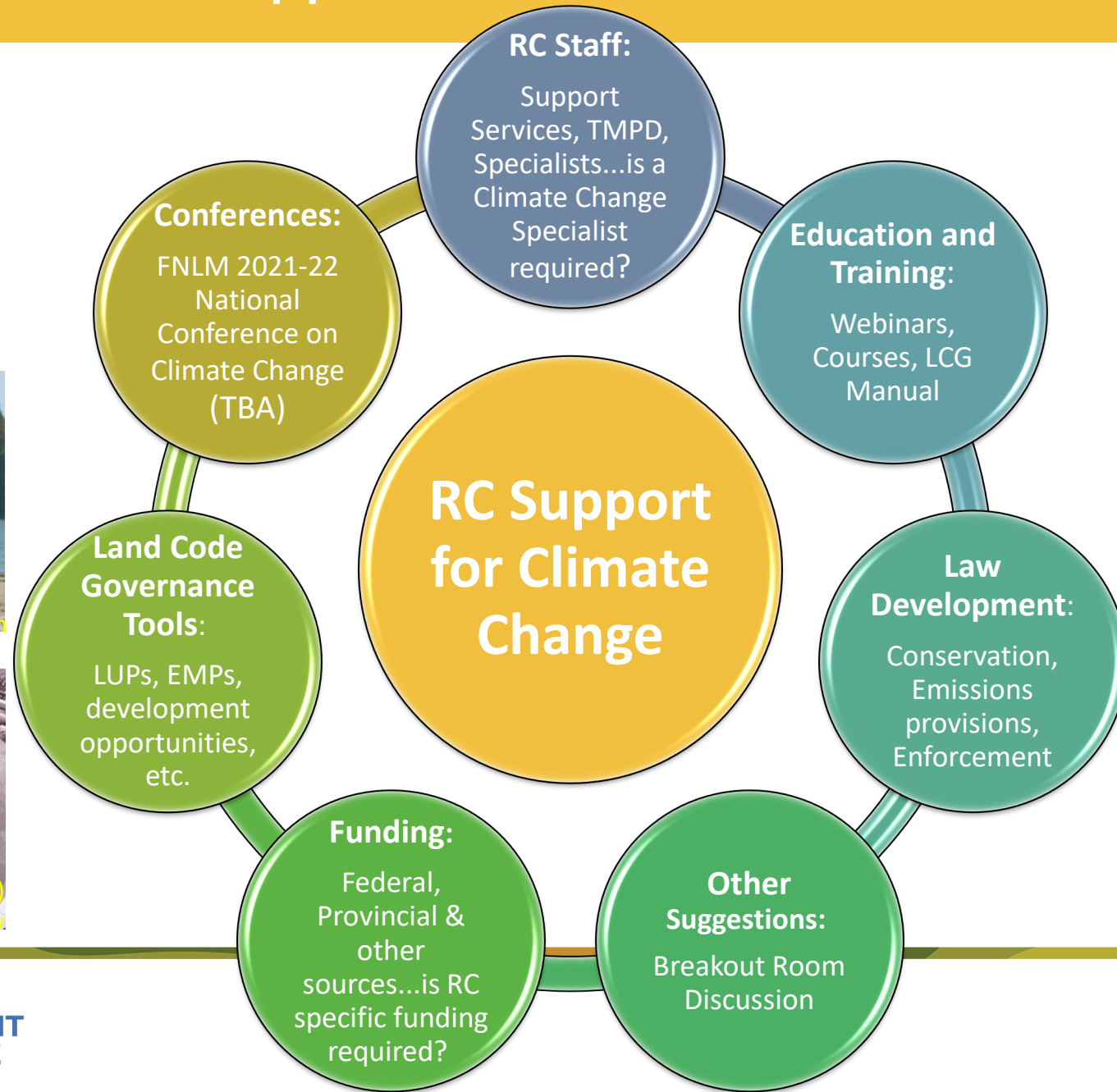
How can the RC better support First Nations' Climate Change Initiatives?



Indigenous Conservation



Carbon Capture (Squamish)
Enhanced Oil Recovery





Group Discussion

- 1 How do you view the RC as a resource for addressing climate related actions in your community?
- 2 Do you see a need for stronger linkages between lands and infrastructure management to address climate change?
- 3 What suggestions do you have on networking, partnerships and what the RC can assist with?





RC Regional Discussion Groups



Questions & Discussion



Explore the range of climate change challenges and opportunities that may affect Framework Agreement First Nations

Share stories and experiences in community led action in response to climate change

Discuss how the Resource Centre as an organization can support Framework Agreement First Nation communities with climate change related issues

RC Climate Change Resources:

Climate Change Courses, Workshops, Virtual Networking

The Sky is the Limit: Advancing Indigenous Jurisdiction through the Framework Agreement in response to the Climate Crisis

Climate Change & Our Youth: A Toolkit for Communities

Workshops



- MAY 6** LABRC National Land Registry Workshop
- JUN 10** Land Development, Public Works & Infrastructure

Save the Date



JUL 8

AUG 12

SEP 9

OCT 7

NOV 4

DEC 9



3 hour virtual workshops



presentation & group discussion

Registration opening soon!



**FIRST NATIONS
LAND MANAGEMENT
RESOURCE CENTRE**



**Training, Mentorship &
Professional Development**

THANK YOU

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