



MY COMMUNITY
MATTERS

Lytton First Nation

Community climate preparation,
response, recovery and rebuild.

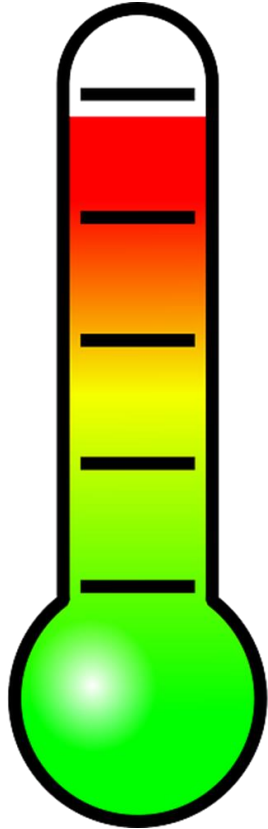
Virtual Presentation
February 27th, 2025

Patrick Michell,
LFN Rebuild Director

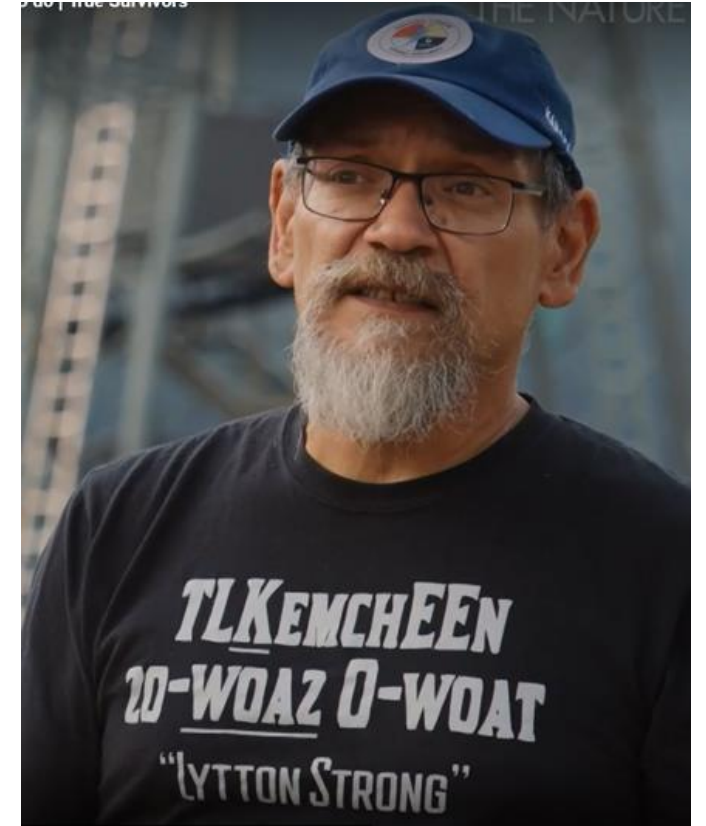


Climate Change & Community

Risk planning and Future proofing!

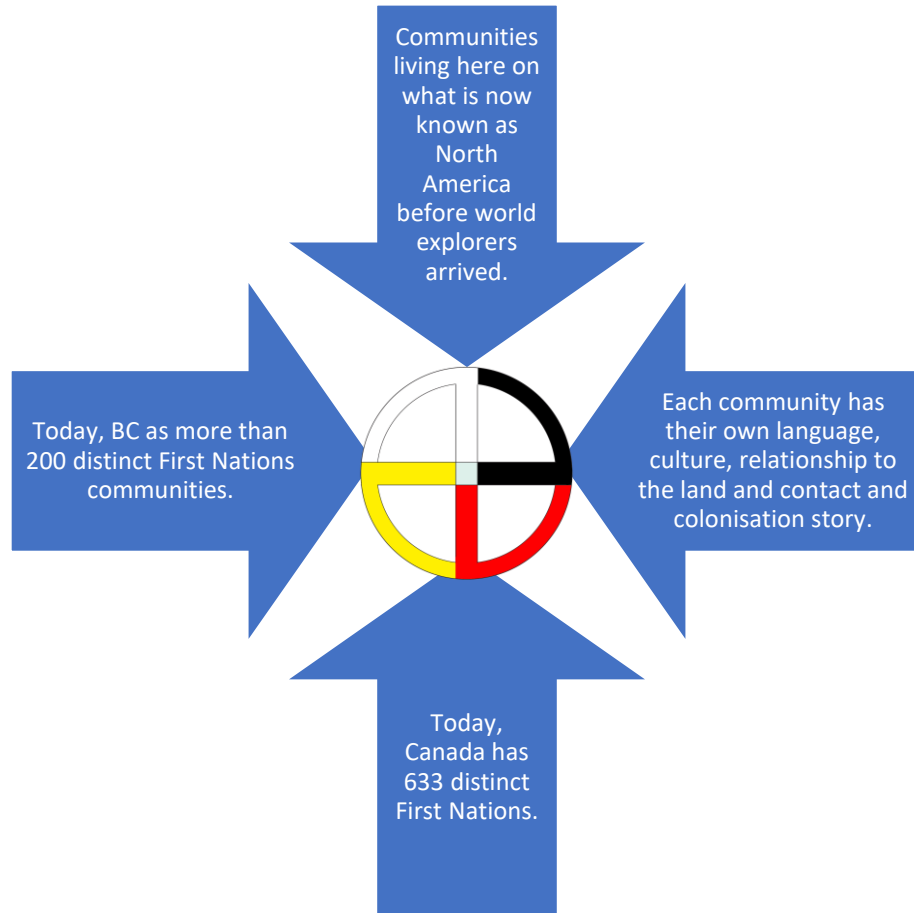


- Thank you, creator, for the gifts of life and choice.
- Thank you to the indigenous peoples of Canada, the original custodians of the lands and waters on which we all live and enjoy today.
- Thank you to the NWT Association of Communities for inviting me to share.
- Thank you, participants, for your time.



2020 AFN Video: The Next Thousand Years
<https://www.youtube.com/watch?v=6md2Ld5lChw>

Today, Tomorrow and Beyond: Climate Resilience One Step at a Time Starts with Canada's Indigenous People



Diversity

Canada's first people have both similarities and differences. There are commonalities.

Life and Lifestyle

Prior to contact, indigenous people were self-determining, self-sufficient and had been so for thousands of years.

Here then, here today, here tomorrow

Indigenous peoples survived contact, colonisation, the Indian Act, Residential School and 1982's patriation.

Indigenous People will survive Climate Change

Climate Change impacts are Site Specific

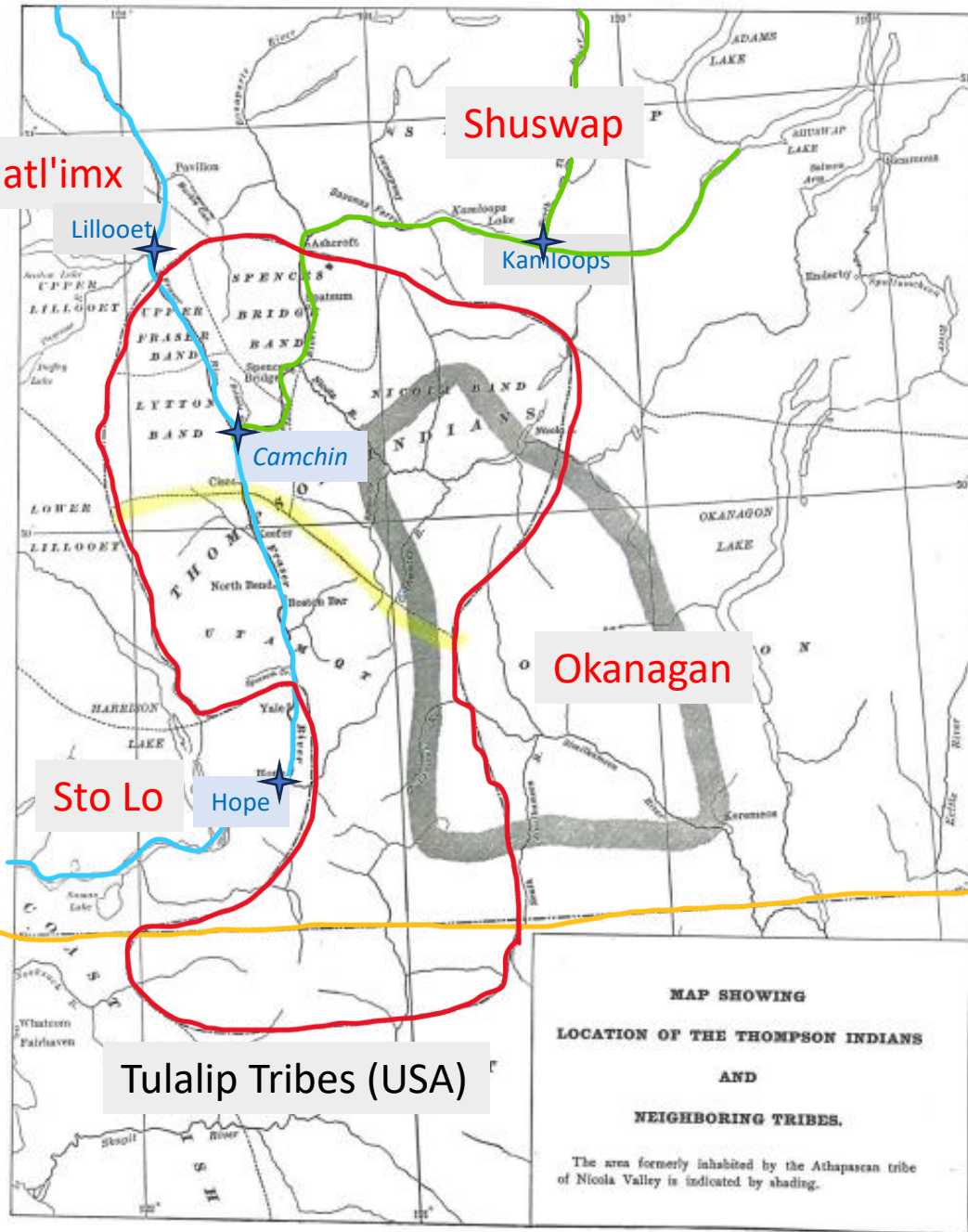
Wherever you are, you are facing your own extremes and the catastrophes that will follow.

2023 AFN Video: Preserving our Environment, Lands, and Waters for Future Generations

<https://www.youtube.com/watch?v=GopjanDZycw>

Nlaka'pamux (the people here)

- Stories of indigenous use and occupation from time immemorial.
- Archaeology confirming 10,000+ years.
- Who and where the *Nlaka'pamux* are is well known by surrounding First Nations.
- First contact occurred at “Camchin” in 1808 (*now known as Lytton*) where the **Thompson River** and **Fraser River** meet.
- 1846 Saw the **49th Parallel** extended bisecting Nation Lands.
- 1876 *Indian Act* amalgamated 69 *Nlaka'pamux* communities into 15 *Indian Act* Bands.
- This is the first known *Nlaka'pamux* Nation map from around 1900.

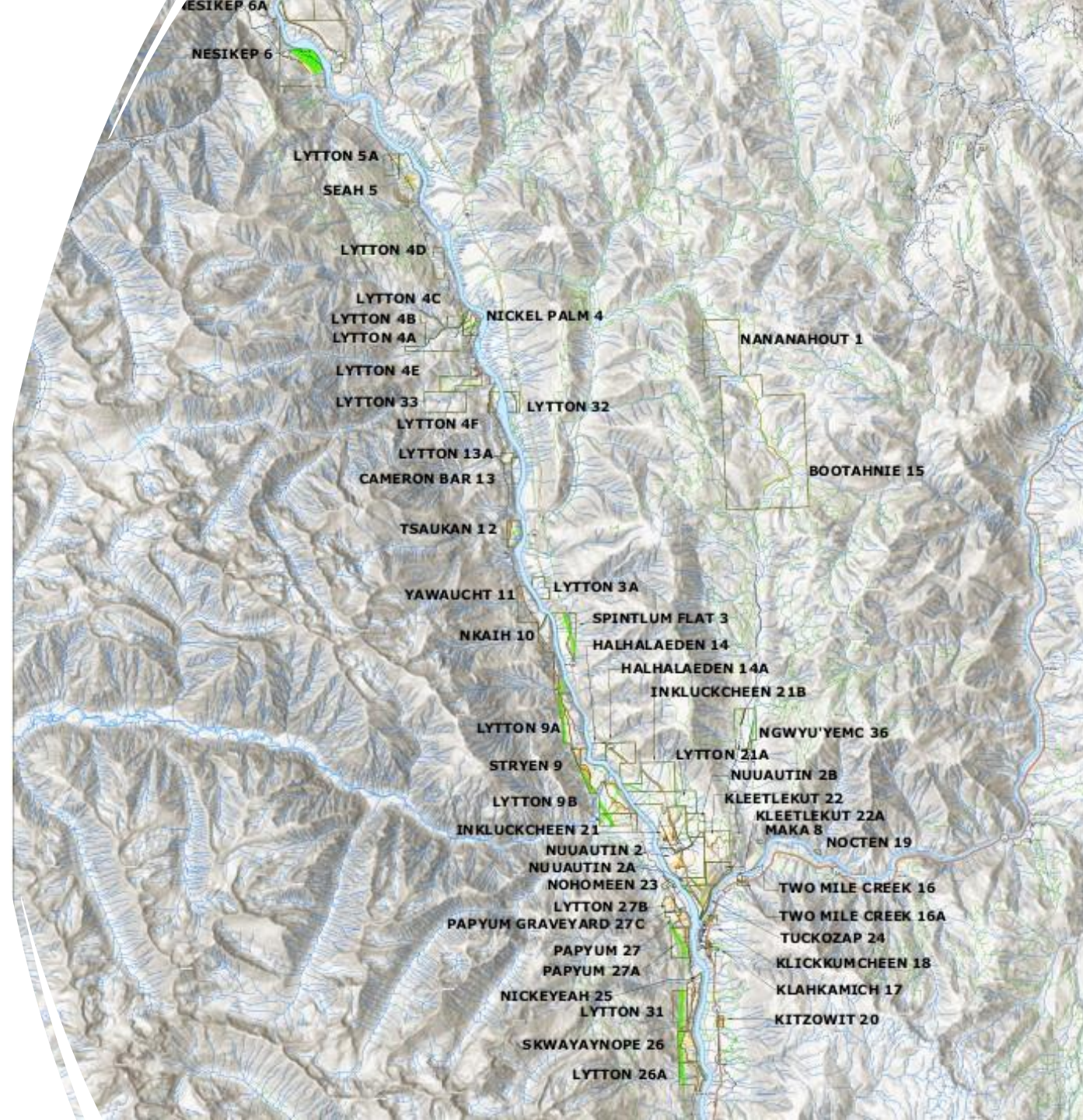


Contact brought change

T'lkemstin to Camchin (1808) to
The Forks (1846) and then to Lytton (1858)



From a Nation to Reserves? (1878)





Nlaka'pamux Oral History

- As community, we survive.
- Those who get ready for winter, survive the winter!
- What you do to the land, you do to yourself.
- Take care of the land and the land will take care of you.
- Heal the land, heal yourself.
- What you do today determines your children and grandchildren's future.

**Survival and Adaption - a four-letter word
WORK**



1963



1953



A Little Climate History

10,000 years of “normalcy”.

1988 World Scientist raise the alarm.

1992 Climate Gathering in Rio.

2018 BC releases a Clean BC plan with annual reporting:
<https://cleanbc.gov.bc.ca/>

2019 BC First Nations and Canada declare a Climate Emergency.

2022 BC FN Leadership release a BC First Nations Climate Strategy and Action Plan:
<https://www.bcafn.ca/sites/default/files/2022-04/BCFNCSAP%20Final%20Draft%20%2822April2022%29.pdf>

2023 Canada Releases a National Adaption Strategy:
<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy.html>

and AFN releases National Climate Change Strategy:
<https://afn.ca/environment/national-climate-strategy/>

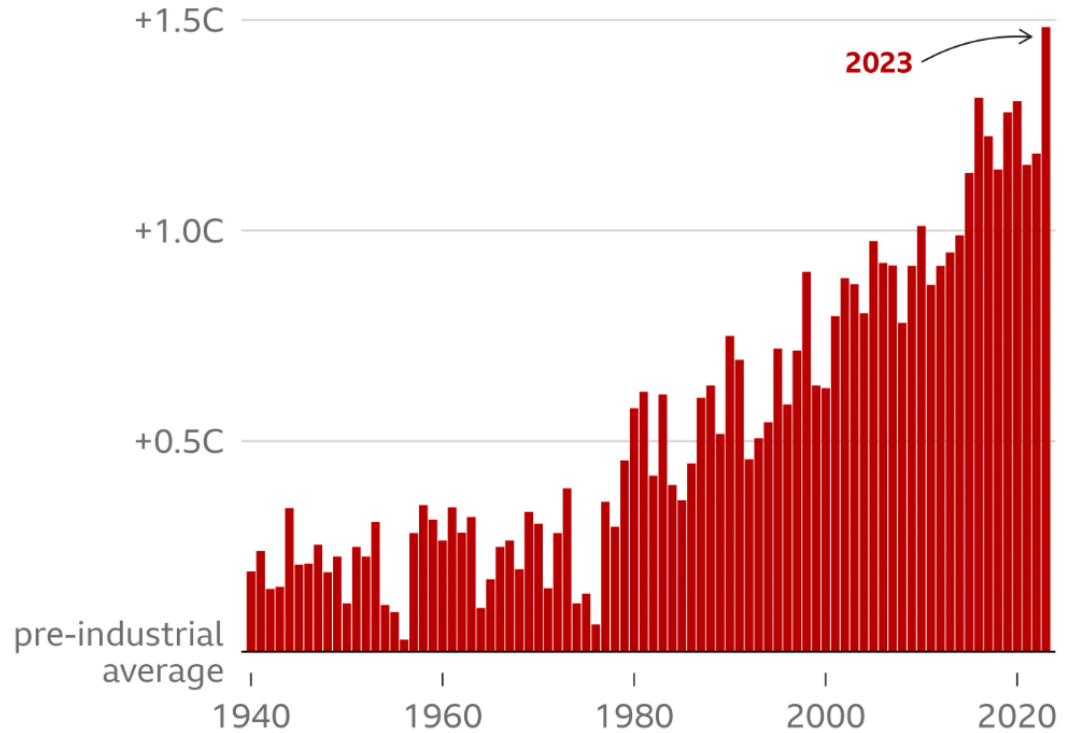


Video: When youth speak – LISTEN!

<https://www.youtube.com/watch?v=oJJGuIZVfLM>

Is Climate Change Real Then?

- Climate change is the long-term shift in the Earth's average temperatures with impact to site specific weather conditions.
- Over the last decade, the world was on average around 1.2C warmer than during the late 19th Century.
- It has now been confirmed that global warming has exceeded 1.5C across the 12 month period between February 2023 and January 2024.
- 2023 has being declared the warmest year on record.



COP26

Canada is warming twice as fast as the rest of the world.

Yes

The world's air, land and water is warming at an unprecedented pace.

Canada's Adapt Programs

Federal support for communities and organizations to assess climate change risk, response to the impacts and to increase climate resilience for *self-determined community priorities*.

Have your community contact:
[Climate Change Preparedness in the North Program](#)

A program that works with applicants to identify priorities for climate change adaptation in the North. The program provides support to Northern communities and organizations to help them adapt to climate change impacts by funding the following types of projects:

- vulnerability and risk assessment of climate change impacts
- development of hazard maps and adaptation plans
- development of adaptation options
- implementation of non-structural and structural adaptation measures

TL'Kemstin (Lytton First Nation)

- 2140 members
- 56 reserves spread over 60 km of the Fraser River
- 193 standing homes, 80 new homes coming in next 2 years and 195 homes over next 10 years
- Chief and Council on a 2-year term
- Active participant in AFN, BCAFN and Union of BC Indian Chiefs
- 2015 Economic Development Plan
- 2016 Land Use Plan
- 2021 Lytton Fire
- 2022 Nohomeen Fire
- 2023 Stein Mountain, Ponderosa and Kookipi Fires
- 2023 Comprehensive Community Plan (Fall)
- 2024 LFN adopts Land Code (Winter)
- 2024 Shetland Creek Fire
- November 1, 2024: Climate Change Report
- 2025 - TBD



Community
Ratification
Process
August 2023

TemEewuh na Ta hheeymOt


The Wolves of Climate Change

Heat, wind, rain and cold.

YouTube

Search

ASSET MANAGEMENT BC: NOVEMBER 25, 2021
PHYSICAL CAPITAL
1884 - 1957 - 2021 - 2050 & BEYOND!



Siwash Creek Bridge & Water Intake

Climate Changes Wolves?

November 15th, 2021

0:06 / 27:48

Climate change

United Nations • Climate change refers to long-term shifts in temperatures and weather patterns. Human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil and gas.

VIDEO: <https://www.youtube.com/watch?v=2aRQ9DbNhY4&t=6s>

Climate Change Consequences

- Evacuation Alert
- Evacuation Order
 - Do you stay or do you go?
- Evacuation
 - return after danger has passed
- Displacement
 - loss of home and hometown
- Recovery
- Rebuild



June 30, 2021

Lytton
the town that burned in a day

<https://www.bbc.com/news/av/world-us-canada-59227915>

Hell and Highwater

<https://www.youtube.com/watch?v=s2iolx9LV3k&t=622s>

What's happening today is scary.

**While we can't eliminate these risks;
we can reduce impacts.**



Unprecedented but not Unexpected

Find Your WHY

6 kids and 17 grandchildren – they are worth – well everything!

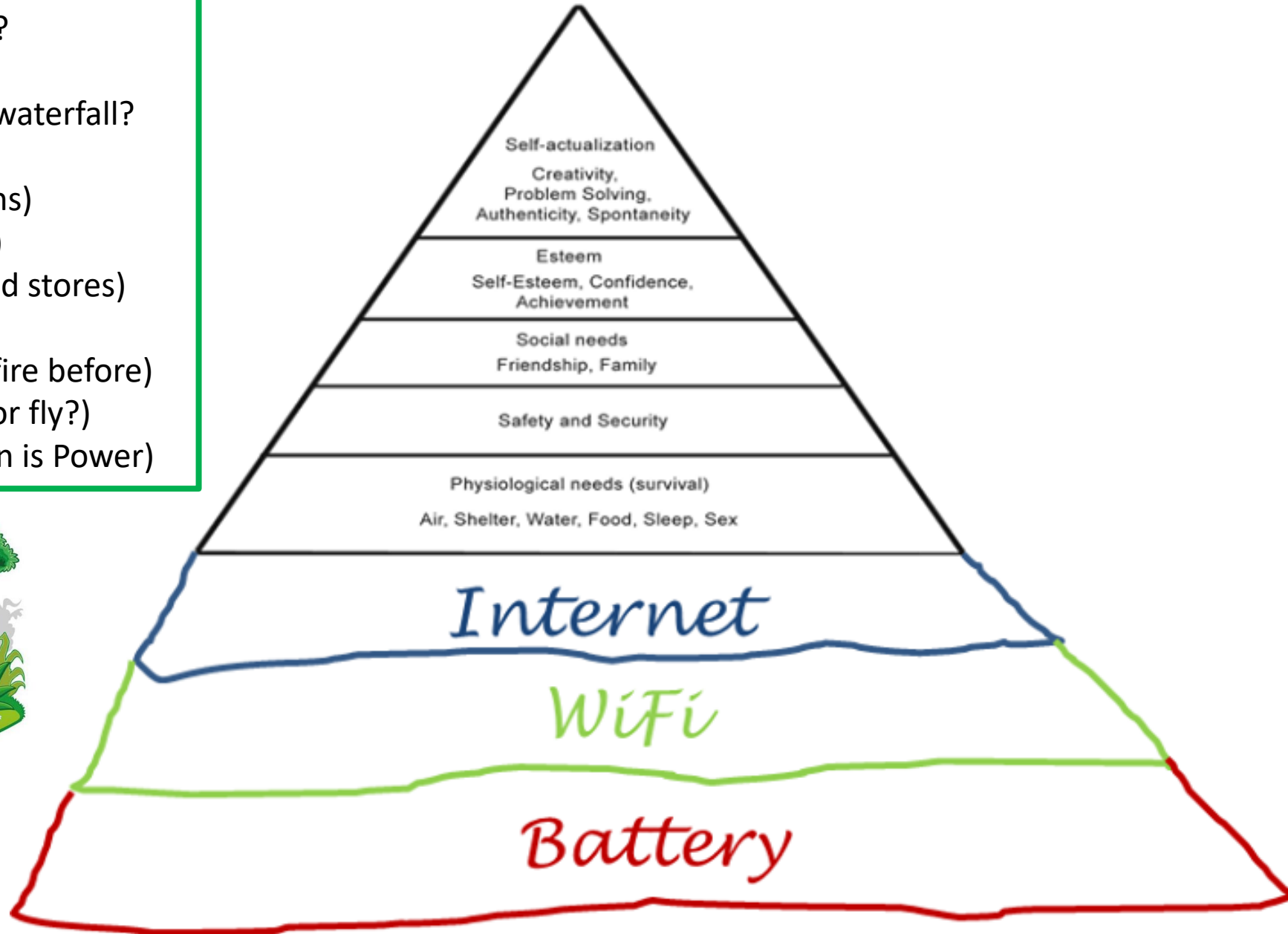


Our future generations need not live through what we are.
We know what to do!

Physiological Foundations A need or a wants?

Is this your communities need waterfall?

- Air (temperature and seasons)
- Water (quantity and quality)
- Food (traditional, farmed and stores)
- Shelter (based on location)
- Energy (electricity now but fire before)
- Transportation (walk, drive or fly?)
- Communication (Information is Power)

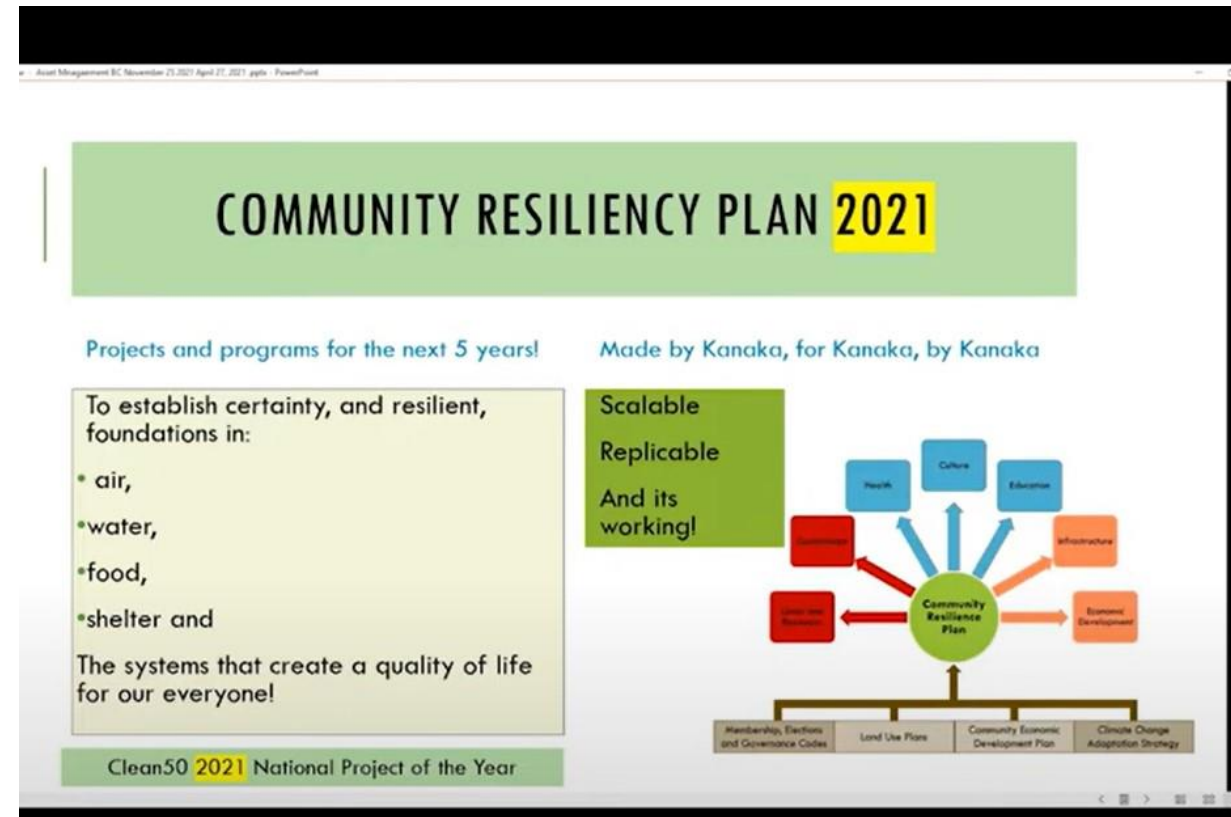
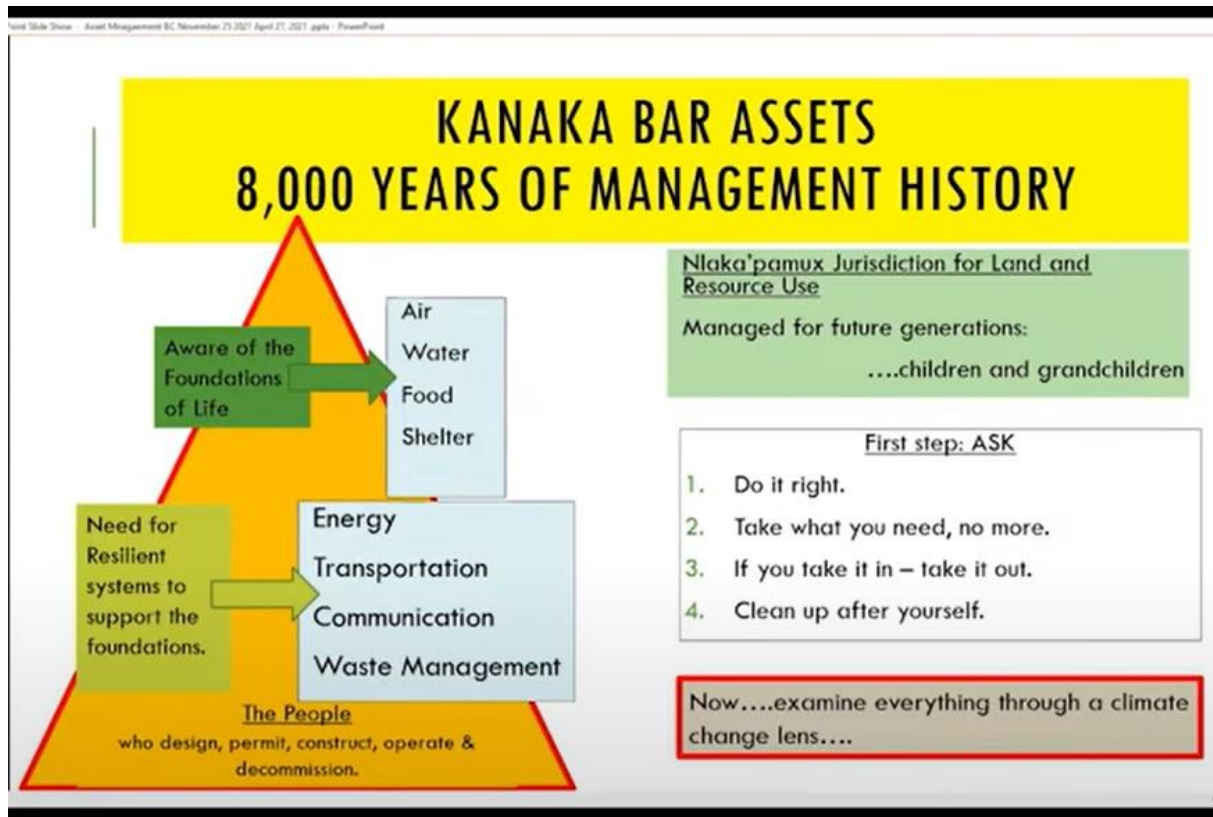


Community Foundations and Systems

(these images are from that Climate Change Wolves video)

MAKE IT YOURS

A Climate Transition and Adaption Plan made by the NWT, for the NWT by the NWT



Air

How long can you hold your breath?

Quality

We are breathing in more than Oxygen today.

- Air quality monitors
- Occupational Health and Safety process
- Smoke: emissions from woodstoves, wildfire and house fires!
- The invisible stuff from manufacturing and vehicles.
- Allergens: getting worse and lasting longer in a warming climate.

Are there other “contaminates” or invisibles that are starting to appear or increase as well?

Weather Stations

Temperature

A warming trend is known but too hot or too cold is also occurring. The seasons are getting wonky.

Wind

New wind speeds, direction and duration and sometimes none. Derecho and Tornados next?

Precipitation (rain and snow)

Too much or too little and predictability?

Generate the site-specific data you need for:

- Risk Awareness
- Mitigation projects and programs
- Safety
- Self-sufficiency

Water

Don't assume or take water quantity and quality for granted.

- Is your community monitoring water flows?
- How about water levels and temperature?
- Is anyone monitoring water consumption?

AWARE

- Look at the last 30 years:
 - what is the pattern?
 - Inland water levels are decreasing.
 - As the ice sheets melt – oceanside levels will rise.
 - Salt water will creep into the freshwater deltas.
- Is it going to get better?

Is there something we can do today to ensure water security for tomorrow?

- That's why your gathering – right?

Look out the Window

- Ice roads (need ice)
- Barges need water levels!
- Snow for snowmobiles.
 - Not to sure about those ATVs?
- Permafrost, building stability and road conditions
- Wildfire and “Zombie fires”
 - How dry is the NWT land getting?
- Ground Water depletion (wells running dry)
- Fish Populations
- Ecosystems shift (ungulates)
- Other?

Food Security

Supply and demand

Traditional foods

- ecosystem shifts and collapse starting
- inability to access wild foods and medicines due to snow & ice (or lack thereof), road and water route conditions.
- Is it possible then to actually return to a subsistence way of living?

If you are not growing – you are vulnerable.

Getting meats, fruits and vegetables to the North – requires both transportation and availability of supply

- Yield and Failures: local, regional and global loss of crops and animals through heat, fire, flooding and disease.

Then there is all this tariff talks going on too.

- Scarcity means little choice
- Scarcity equates to price increases.
- Cessation of supply (go without)

You can raise your own meats, fruits and vegetables year-round.

CEA Article

https://en.wikipedia.org/wiki/Controlled-environment_agriculture

- Farm to fork in?
- Break dependence on globalization!
- Understanding a want versus need.

Shelter

Available, affordable and Resilient

Seems to be a topic on everyone's minds:

- Where market and capitalism reigns.

Would you move then to rural, indigenous and Canada's North?

- If available and affordable land and homes exist!
- There is security in air, water, food and energy and
- Resilient supporting infrastructure?

How about Duluth? News Article:

<https://www.duluthnewstribune.com/lifestyle/front-row-seat-duluths-awkward-climate-proof-buzz-isnt-going-away>

Renovations, Retrofits and New Builds

- Resistant to Weather
- Resistant to Extreme Weather
- Resistant to catastrophe
- Resilient in case it happens!

VIDEO: Resilient Housing Solutions:

<https://www.youtube.com/watch?v=4H7fJNeGwCc>

See stuff below on renovations and new builds.

Energy

Fire, Generator, Grid and Self generation

How do we identify and protect the energy sources that power our heat, cool, lights and mobility.

Without reliable energy – we can also lose essential services like medical, post office, banks, RCMP and EOC and ESS.

Can you afford it?

Is it possible then:

- to self-generate a year-round supply of electricity from small wind, solar, water and biomass.

Absolutely:

- especially when you add in battery storage.

How long can you live without it?

- Quality of life versus life itself!

Transportation

Point A to Point B

The basics still work (*walk, canoe, bike and horse*).

- Planes, helicopters and vehicles (just to name a few) all need parts and fuel and a way to get to you (new or used).

We are already living with supply chain issues – is it going to get better?

Extreme weather and the catastrophes that follow:

- longer and longer transportation system shutdowns and increased supply chain issues.

Is it possible then to shelter in place during an extreme or an event?

- Supports if you do (water and food)
- Is there a new evacuation plan and routes.
- EOC?
- Heating and cooling places.

I believe so: when you make strategic investment in physiological foundations – you can ride out the “storm” so to speak.

Communications

Information Highway – you need to know.

Visit, letter, landlines, cell, satellite

- add in radio, tv and Facebook.

Are we getting too dependent on the gadgets and technology?

- Pretty sure the extreme weather and catastrophes is impacting our ability to speak to each other.
- Batteries don't last forever!

You know this is coming.

Put a communication strategy and implementation plan in writing and then practice.

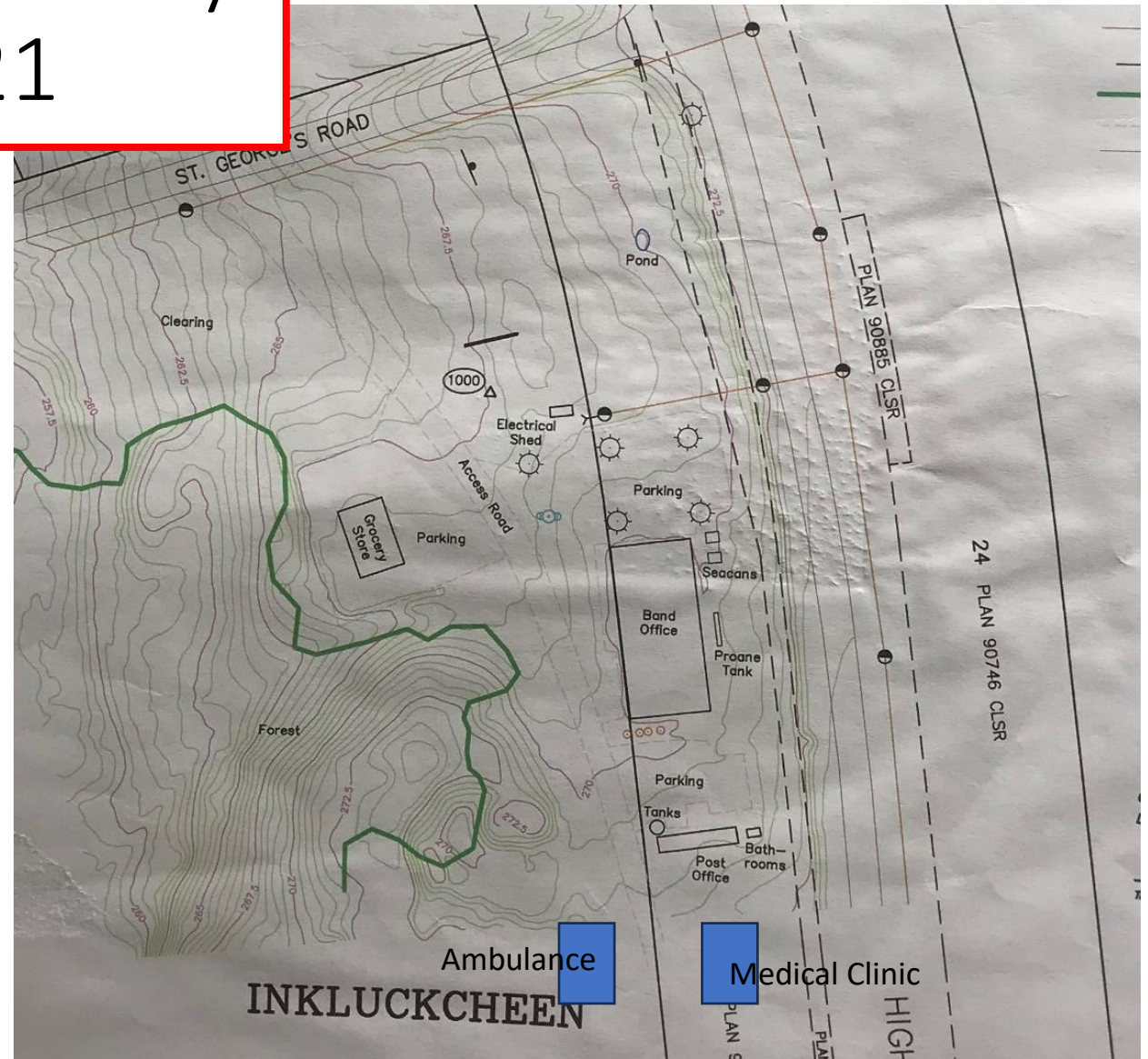
- Have a backup to the back up.
- Check in with your neighbors.

See energy above regarding self-generation.

Lytton First Nations Recovery Since June 30, 2021

- LFN now runs its own ESS and EOC
- LFN established its own Emergency Preparedness and Response Department
- LFN sits at all the municipal, regional, provincial and federal tables.
- 38 displaced families are out of hotels and into modular homes
- 10 Serviced RV sites
- Donation Centre set up to provide essential food and clothing (shelves empty quicky)
- LFN set up on reserve temporary Café, Grocery store and Hardware Centre.
- LFN relocated to reserve Post Office, RCMP, Ambulance and Medical Clinic.
- LFN set up off reserve RCMP, a worker camp, a concrete batch plant and a gravel pit.
- LFN set up a temporary Community Hall & Band Office.

Coming in 2025: Pharmacy, recycling & equipment rental.



LFN Rebuild (Permanent)

TOPOGRAPHIC SITE PLAN OVER PART OF KLIKCKUMCHEEN INDIAN RESERVE NUMBER 18

AMLOOPS DIVISION OF YALE DISTRICT, BRITISH COLUMBIA
CGS 921.023

Intended plot size of this plan is 432mm in width by
30mm in height (C Size) when plotted at a scale of 1:1000.

Post Wildfire Rebuild Design
Main Street, Lytton, BC

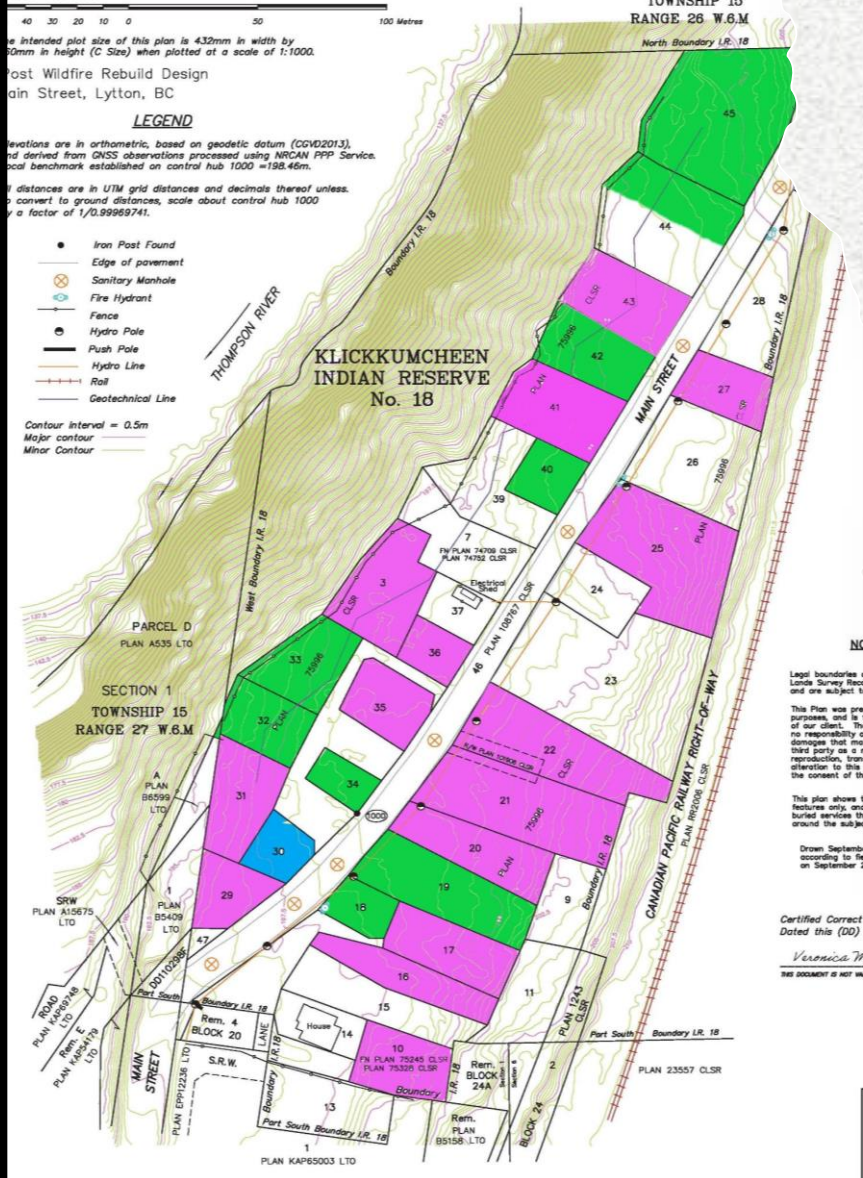
LEGEND

Elevations are in orthometric, based on geodetic datum (CGVD2013),
and derived from GNSS observations processed using NRCAN PPP Service.
Local benchmark established on control hub 1000 = 198.46m.

Distances are in UTM grid distances and decimals thereof unless
indicated otherwise. To convert to ground distances, scale about control hub 1000
by a factor of 1/0.99999741.

- Iron Post Found
- Edge of pavement
- ⊗ Sanitary Manhole
- ⊕ Fire Hydrant
- Fence
- Hydro Pole
- Push Pole
- Hydro Line
- Rail
- Geotechnical Line

Contour interval = 0.5m
Major contour
Minor contour



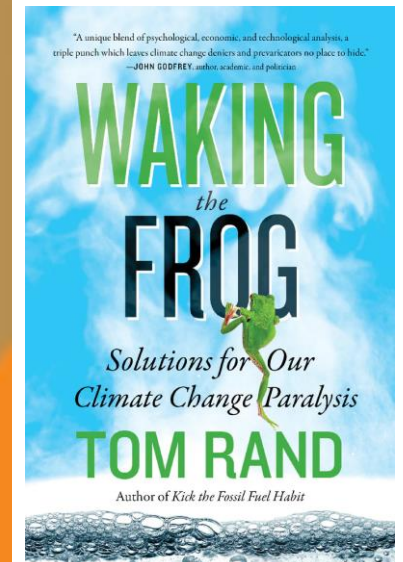
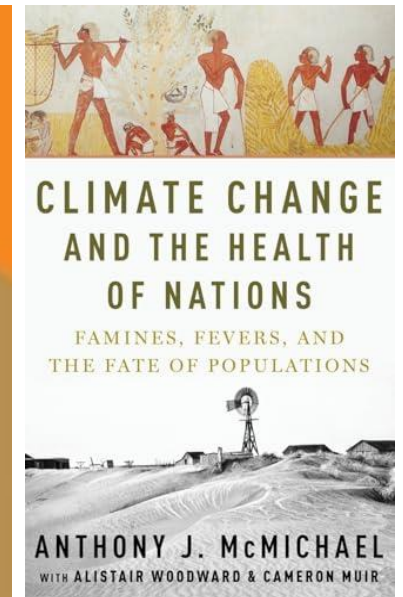
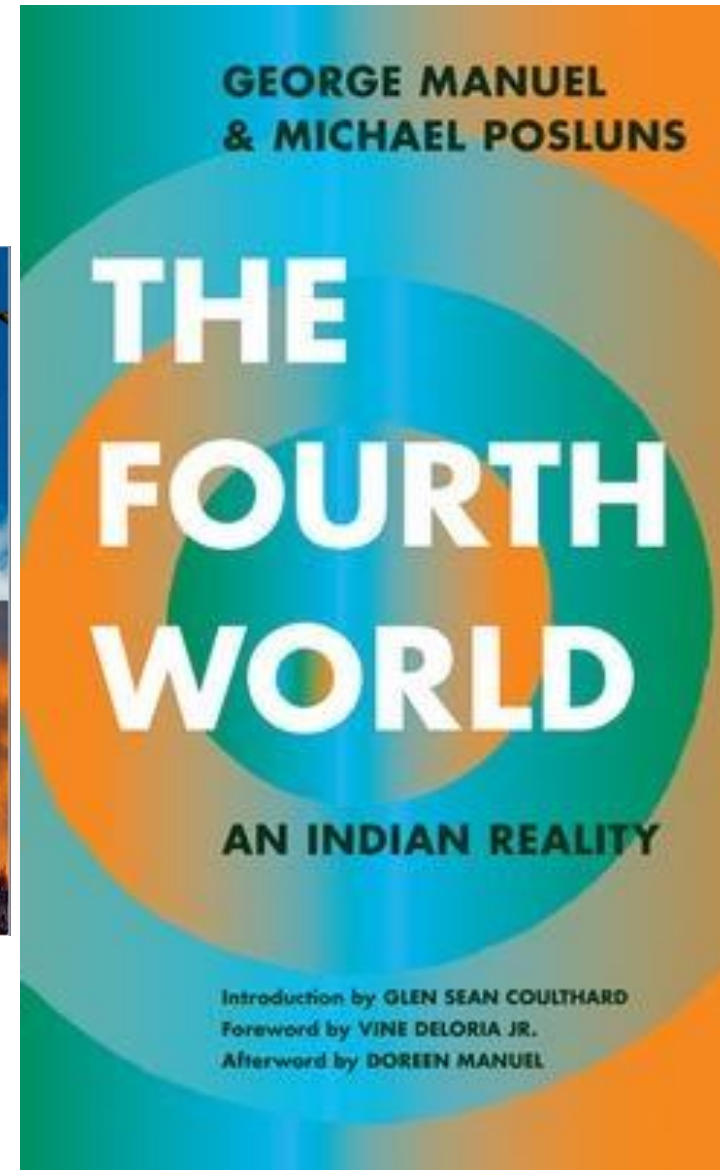
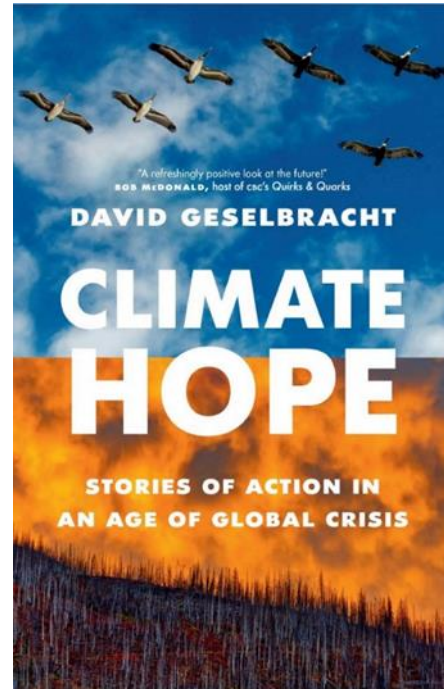
- 80 replacement homes started in 2024
 - Highest standards for external fire rating, thermal transfer and durability
 - cool in summer and warm in winter
 - low electricity consumption
 - solar and battery storage where can
- Y'kem Food Hub under construction
 - Processing and storage of family, community and regional meat, fruit and vegetables by drying, freezing, canning, smoking or salting.
 - Surplus available for sale.
- Lot 24: New Cultural Space started
- Commencing community engagement on the location of permanent band office and community hall

Information

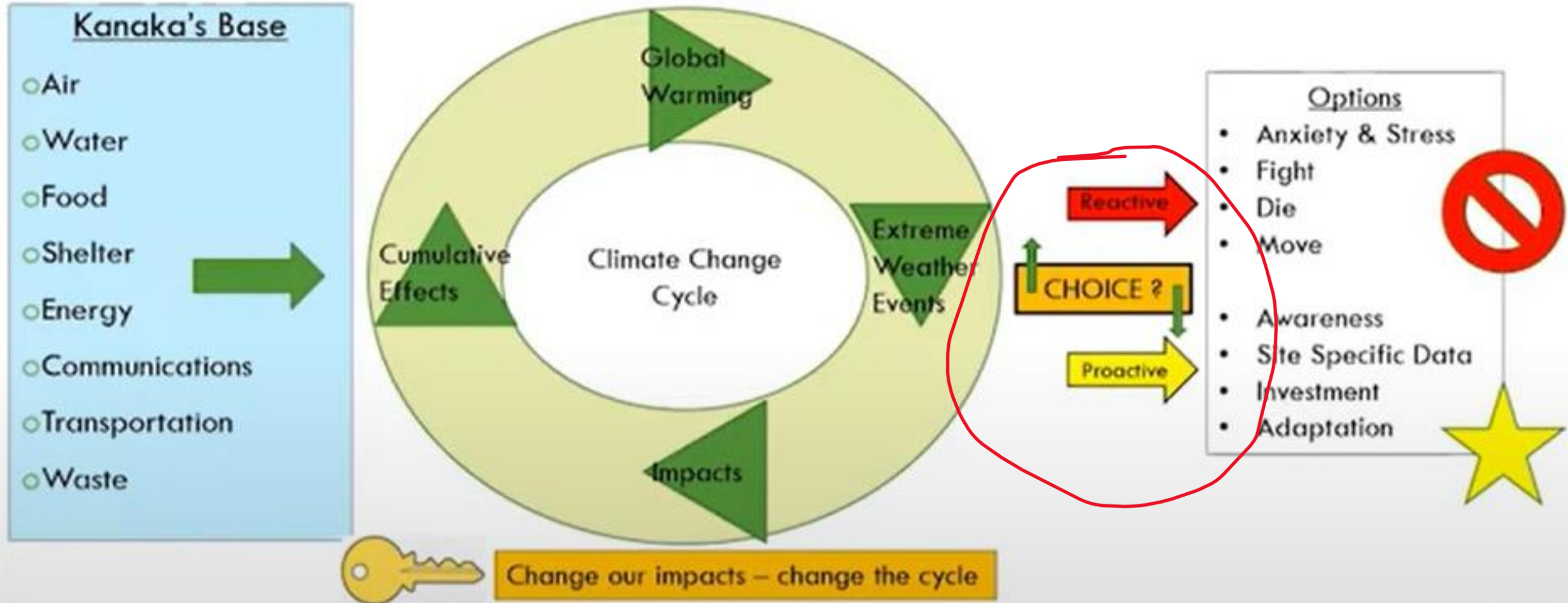
Gathering, storing and transferring information to give our future generations the tools they need to live.

Some Suggested Readings

Hope flows from Action (June 2023):
<https://climateinstitute.ca/publications/hope-flows-from-action-rebuilding-with-resilient-foundations-fraser-canyon-region/>



WITHIN OUR GLOBAL CLIMATE CYCLE IS SUSTAINABILITY CHALLENGES & OPPORTUNITIES



Wisdom for the Generations

Together we will be ok.

VIDEO

Feb 24, 2023: Nature of Things – True Survivors

<https://www.cbc.ca/documentaries/the-nature-of-things/we-have-an-extraordinary-ability-to-adapt-and-survive-sarika-cullis-suzuki-1.6748120>

We are not alone in climate prevention, preparedness, recovery and rebuild.

I thank all those who have supported and provided resources to our community so that our future generations will have a life and a quality of life.

LFN Rebuild Director, Patrick Michell

LEAD& LEADERSHIP

Stop talking and do.

You need to make the investments now.

- Gift of life and choice
- Everything you say or do matters
- Choose your priorities wisely
- You are worthy. More importantly, our children and grandchildren are worth it.

Thank you: Patrick.Michell@lfn.band

Climate Change & Fire Resiliency

2016: We all became acutely aware of bad fire risk, probability and consequence!

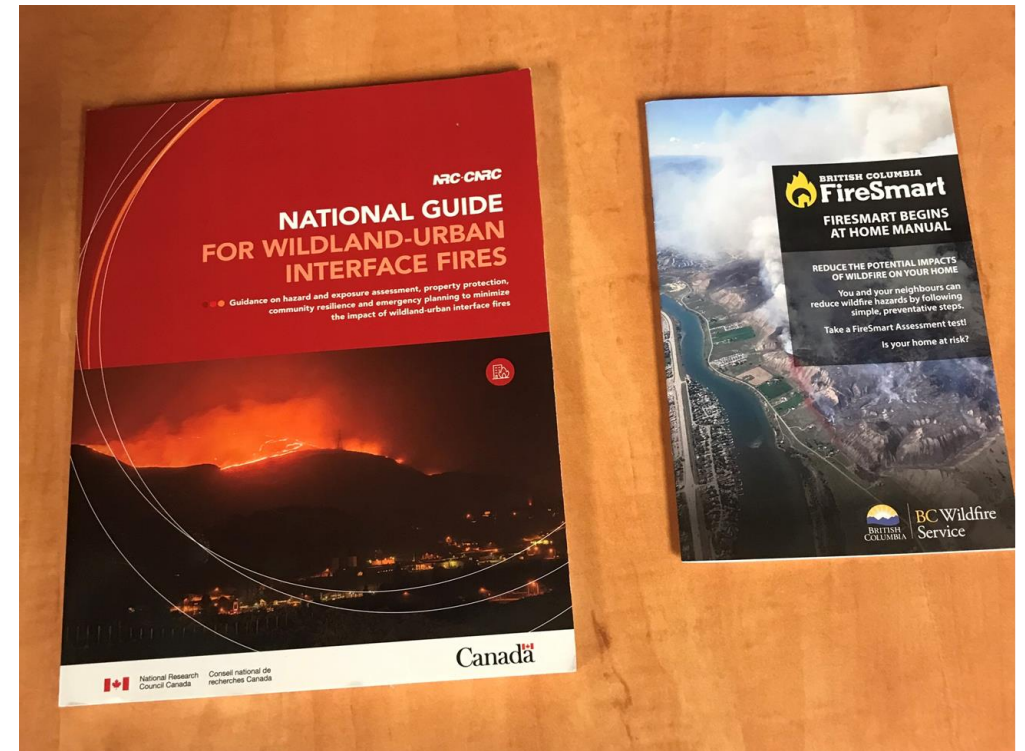
2018 : The New Normal (Abbott Chapman Report):
<https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/embc/bc-flood-and-wildfire-review-addressing-the-new-normal-21st-century-disaster-management-in-bc-web.pdf>

2021: The Lytton Fire.

There is now a fire resilience information overload.

Then there are people who:

- Are not aware of risk, probability and consequence.
- Have learned dependency.
 - Ottawa, Mayor or a Chief will do it!
- Are unable to protect their property and family.
 - Health, lack of tools or a start up plan.
- Are unwilling to do the work.



**ADDRESS through a reinforced
AWARENESS and a WHY!**

What is the climate risk?

Bad Fire and More of them!



1. Awareness (risk, probability and consequence).
 1. External fire, temperature and air quality.
 2. Increasing in frequency, duration and intensity.
2. Simple description of fire resilience planning areas.
 1. Watershed Management
 2. Proximal Management
 3. Renovations (buildings and infrastructure)
 4. New Builds
3. Easily understandable steps within each planning area
 - Low hanging fruit
 - Followed by logical and incremental next steps
 - Before and after pictures
 - Show everyday people doing fire resilience work.
4. Benefits
 - Safety of self, family and assets.
 - Action reduces stress, anxiety and fear.
 - Intangibles
 - self-determining, pride, self-esteem and sense of purpose and community
 - Mitigate impacts
 - response, evacuation/displacement, recovery & rebuild
 - Save Money (ounce of prevention equals pound of cure)

Remove the Fuel

Fire needs fuel, oxygen and heat.

Fire spreads via direct flame, ember storm and radiant heat.

Air Quality never seen before

Community Hall and Café – August 21, 2023



AWARENESS

Frequency, Duration and Intensity

We are not dealing with the wildfires of yesterday!

- Too much fuel
- Fuel is tinder dry and preheated
- Increased regional heat, drought, and wind
- 30-30-30 principle

Experiencing fast and hot fires never seen before.

- Large distances in minutes
- Fire now down hill and against the wind.
- Embers travelling kilometers.
- Melting windows, trucks and tractors.

Double (quadrupling) down on your effort!

- Prioritize Fire resiliency
- A stitch in time saves nine or an ounce of prevention equals a pound of cure
- An investment, not a cost.

All in approach (community)

- Lead (hope flows from action).
- Fire Resiliency – as strong as your weakest link.
- Start somewhere – success builds on Success.



Build up fire resiliency over time
Its overwhelming to try and do all at once!

Before getting out of AWARENESS

CAUTION

Fire Resilience & False Sense of Security



2023 treated area (temporary store)

- Grew back in 2024
- Still has barriers (fence and wire)
- Low hanging tree branches (ladder)
- Chipped pile can be removed

- Can't eliminate the risk!
 - External fire risk reduction
 - Is achieved by burning, chipping or removing fuel.
 - Reducing the opportunity for fire to move through the landscape and between buildings.
- Retreat the areas
 - watershed or proximal
 - remove barriers to efficient retreatment
 - rocks, fences, wires, topography
- Make sure existing and new homes and businesses are evaluated, and a reevaluation scheduled (and done).
 - Like new gutters and then planned gutter cleaning (moss and leaf buildup).
 - Inspection and reporting to make sure the work is done!

Bad Fire – wildfire moving into urban areas



In a forest where fires rarely happen, fuel builds up: There's **surface fuel** (grass, logs, woody debris, brush); **ladder fuel** (shrubs, small trees, snags); and **tree crowns**.

1 Surface fires spread quickly through brush and woody debris.

2 Ladder fuels allow the fire to move up toward the forest canopy.

3 Tree crown fires are so intense, they're difficult to control.

1

Watershed Forest Fuel Management

You can defend against a ground fire!

Broadcast Burns (fighting fire with fire)

- Prescribed or cultural – burn the fuel when safe to do so.
- DO when cooler, moist and use fireguards
 - People, seriously, don't start a fire then leave!
- Watch that wind!
- Challenge: dependency, permissions, liability, cost and experience

Polygons

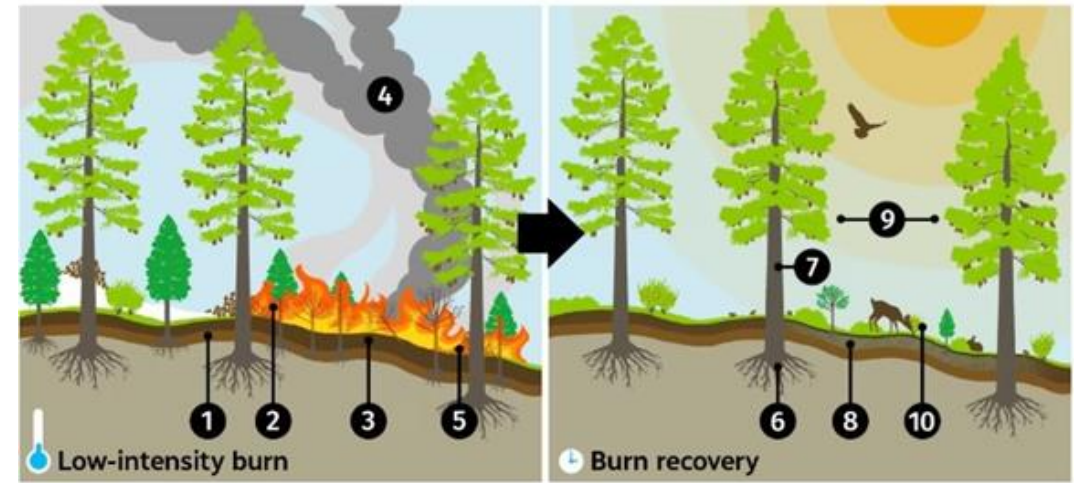
- Map to show locations, progress and post fire results
- Prune, thin, burn and chip (remove the fuel)
- Prioritize access routes?

Right of ways (Eliminate the dynamite fuse)

- Roads, Railway, pipelines and hydro lines

Berms and Fireguards

- Build and maintain natural and anthropogenic barriers to ground fire to reduce crown fires (build gaps - daylighting)
- You can defend against a ground fire.



Low-intensity fire

- | | |
|--|------------------------------|
| ① Mineral soil | ⑥ Carbon storage |
| ② Ladder fuels (e.g. branches) | ⑦ Thicker bark |
| ③ Duff layer intact | ⑧ Nutrient-rich mineral soil |
| ④ CO ² release | ⑨ Fire break |
| ⑤ Fine fuels (e.g. twigs, dead leaves) | ⑩ New plants |

Watershed Fuel Reduction – Really Works

Legend

- Lytton Area Burns 2010-2020
- Treatment Polygons 2001-2020
- First Nation Reserves
- ▨ 1991-2000 fire perimeters
- ▨ 2001-2010 fire perimeters
- ▨ 2011-2020 fire perimeters
- ▨ 2021 fire perimeters
- ▨ 2022 fire perimeters
- ▨ 2023 fire perimeters

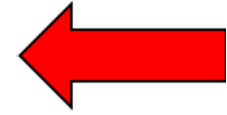
leted Fuel Management

0 1.25 2.5

2

Yards and Common Areas

Burn, chip or **remove the fuel!**



- Ditches, fence lines, fields & gullies.
- Remove dead and combustible vegetation (i.e. coniferous trees and hedges)
- Prune (ladder fuels)
- Thin vegetation (spacing to reduce crown fire spread)
- Remove dead cars and shift woodpiles.
- Abandoned buildings (deconstruct).

Its hardest the first time.



Retreatment is easier and faster – start somewhere!



Cut, stack and remove



Before
and
After





Before and After



Remove proximal fuel when safe to do so



That 2023 Area: retreated in 2024 and last obstacles removed.

Renovations and Retrofits

Annual fire risk evaluation & repair

LFN has 193 homes that survived the 2021 fire.

- Not the best quality, “aged out” and “renovation” money pits.
 - Asphalt roofs
 - Vinyl and cedar siding.
 - So much “wood” everywhere!
- Fixed income and low-income families.



Seven more LFN homes were lost in 2022 and 3 more were deemed unsafe after post home fire assessments were done (tear down and redo)

LFN is working together to **reduce external fire risk (direct flame, embers and radiant heat)** on existing built homes and businesses:

- metal roofs
- proper soffits and facie board
- Repairing exhaust vents
 - stove, bathroom and dryer
- better windows and doors
- Siding removal and replacement
 - Hardie Board or AAC cladding.
- Alternatives to flammable materials
 - decks, fencing, woodsheds, storage etc

AND EMPOWERING OWNERS AND TENANTS



Anyone know how the Lytton Parish Hall and adjacent area survived?



- Buildings were superheated, super dry and faced the same wind driven:
 - Direct flame....
 - Sparks....
 - Radiant Heat....
- What was different from the rest of town?
 - Metal roof on hall
 - New asphalt roof on the church and rectory
 - Hardie Siding
 - Vegetation managed and lawn cuts
 - Distance from other buildings

Lahaina Beach Fire 2023

FireSmart Principles



100-year-old wooden house survives:

<https://globalnews.ca/news/9914601/100-year-old-miracle-house-in-lahaina-survives-deadly-maui-fire/>

Recently Renovated

- Vegetation was trimmed back
- New metal roof
- New siding
- Landscaping was changed to stone



11 of 193 LFN existing homes chosen for initial fire resilience renovation upgrade!

New Buildings

Stop building things that burn!

We build with what we are aware of and can afford.

- Options are often impacted by lenders and insurance companies.
- Everyone thinks in capital (or the cost to build)
- Shift thinking to resilience and durability investment.

What are building and fire resiliency codes?

- No one likes it when one of the “5 states” starts telling voters, owners and tenants what to do.

Fire resilient homes and businesses can also have:

- Reduced “downtime” and recovery savings
- Energy efficiency
- Thermal mass
 - Cooler in summer, warmer in winter
- Durability (intergenerational)

What are our new build options?

- What we lost (the stick built 2x4 and 2x6 buildings) or
- Hempcrete, mass timber, CMU, Concrete, ICF, Hardie Board, AAC, SIP, rammed earth (to name a few).

1. LFN requires rebuild meet or exceed code
2. Aware of cost versus investment
 1. CBA (Cost Benefit Analysis) and
 2. MCDA Multiple Criteria Design Analysis
3. Sealed Drawings
4. Inspections

Renovations and new builds Are not costs, they are an investment



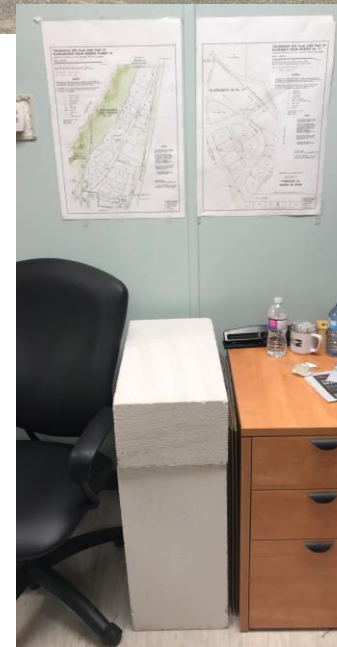
New LFN Cultural Centre

- Hardie cladding (panel)
- Solar and battery storage planned.
- Testing after construction planned.



Nzenman Daycare

- Rammed earth been considered



LFN replacement homes

- Families have asked that external fire resilience be a priority
- AAC Block is a minimum 4 hours
- Hardie Board and mineral wool (1 hour)
- Hardie Board alone – 20 minutes

274 Laguna Beach California (1993)

<https://lakewaymud.org/update/wildfires-dont-be-scared-be-prepared/>



- Building envelope was AAC
 - noncombustible, spark and radiant heat-resistant construction material
- metal roof
- maintained the yard.

Allowing the firestorm to pass by with little structural damage.

We don't need miracle homes; we need planned for and then implemented fire resistance.