











## 2024 Extreme Heat & Wildfire Smoke Response Planning for Non-Profit Housing & Service Providers

May 8, 2024

#### **Agenda**

#### **Topic**

Welcome / Overview (Jackie Kanyuk, BCNPHA)

Health Impacts & Research (Dr. Michael Schwandt, VCH)

Non-Profit Resources / Emergency Services (Dexter Charlebois-Holmes, BCH)

Emergency Response Planning (Lisa Benini, BCSTH)

Lived Experiences of Heat in Indigenous households (Shahed Shafazand, AHMA)

Preparing & Responding to Extreme Heat, Wildfire Smoke and Evacuations (Kelly Fehr, Turning Points Collaborative)



## Extreme Heat and Wildfire Smoke in BC: Health Effects, Preparation and Response

**BCNPHA Webinar: Extreme Heat & Wildfire Smoke Response Planning** 

Dr. Michael Schwandt, Medical Health Officer, Vancouver Coastal Health May 8, 2024

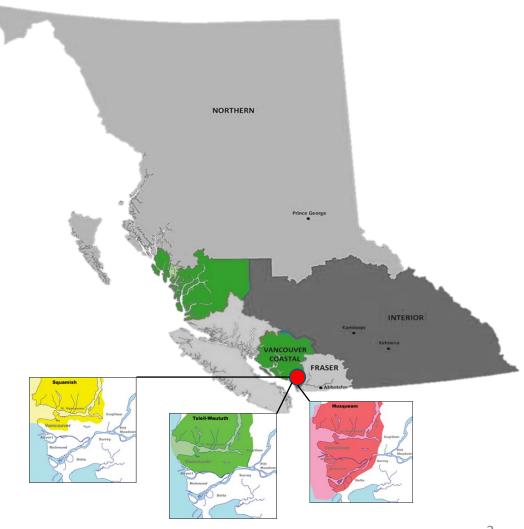
With acknowledgements to: Craig Brown, Iris Chan, Emily Peterson, Tyler Semler, Meghan Straight



### **Territorial Acknowledgement**

We wish to acknowledge that the land on which we gather is the traditional and unceded territory of the Coast Salish Peoples, including the Musqueam, Squamish, and Tsleil-Waututh Nations.

Vancouver Coastal Health is committed to delivering exceptional care to 1.25 million people, including the First Nations, Métis and Inuit, within the traditional territories of the Heiltsuk, Kitasoo-Xai'xais, Lil'wat, Musqueam, N'Quatqua, Nuxalk, Samahquam, shíshálh, Skatin, Squamish, Tla'amin, Tsleil-Waututh, Wuikinuxv, and Xa'xtsa.







### **Outline**

- Heat/wildfire smoke events and related illness
- Risks for health effects of heat and wildfire smoke
- Planning and action for extreme heat and wildfire smoke
- Resources



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## Climate change: Local projections



## **Extreme** heat

2050s projections [SSP585]

warmer temperatures

2.4°C

Warmer temperatures yearround, with an average temperature increase of 2.4C



The hottest days will be hotter

9x as many days

3x as many days

more frequent & intense heatwaves



Heatwaves will be 4x more frequent

On average, heatwaves will last

**3-6 days** 

and involve warmer day and nighttime temperatures

## Climate change: Local projections



## **Poor air quality**

Climate change-related poor air quality has two main causes:

#### wildfire smoke



Longer fire seasons cause more exposure to smoke

Increasing wildfire frequency and intensity

#### ground-level ozone



The main cause of this harmful gas is vehicle exhaust

Warmer and drier summers can lead to elevated levels

## Looking ahead to summer 2024 ...

ENVIRONMENT

## 'Concerning': B.C.'s snowpack lowest in 50 years at 63% of normal



By Darrian Matassa-Fung · Global News

Posted April 10, 2024 1:48 pm · Updated April 10, 2024 6:22 pm · 3 min read



Chapman Lake reservoir in the Sunshine Coast region seen during drought conditions in October, 2022. Sunshine Coast Regional District

It's the middle of winter, and more than 100 wildfires are still smouldering

Dry weather after record-breaking summer season has kept fires going in Western Canada



Benjamin Shingler · CBC News · Posted: Feb 21, 2024 1:00 AM PST | Last Updated: February 21

## EXTREME HEAT

Some people are impacted by the heat more than others. People over 60, people who live alone, people with certain health conditions or disabilities, people who use substances, people on certain medications, people who are pregnant, infants and young children may need extra care.











#### **HEAT EXHAUSTION SYMPTOMS**

- Skin rash
- Heavy sweating
- Dizziness
- Nausea or vomiting
- Rapid breathing & heartbeat

- Headache
- Difficulty concentrating
- Muscle cramps
- Extreme thirst
- Dark urine & decreased urination

Anyone with these symptoms should be moved to a cool space, given plenty of water to drink, and cooled down with water applied to the skin (see "Cool Off" section below)"

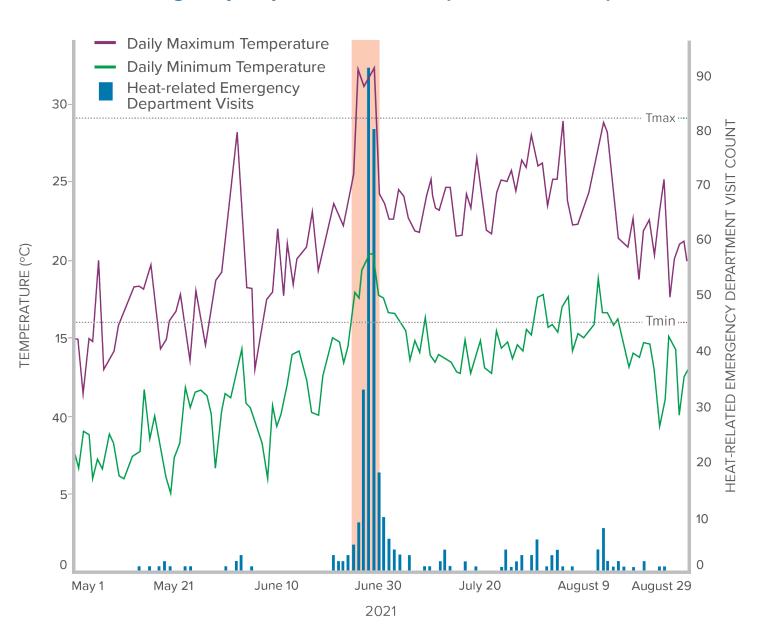
#### **HEAT STROKE SYMPTOMS**

- High body temperature
- Fainting or decreased consciousness
- Confusion
- Lack of coordination
- Very hot and red skin

Seek medical attention, call 911 if necessary.

Submerge some or all of the body in cool water, remove clothes and apply wet towels.

## Daytime temperatures, heat warnings, and VCH emergency department visits (Summer 2021)





## WILDFIRE SMOKE

Different people respond differently to smoke. People with chronic conditions, people who are pregnant, infants and small children, older adults and people with respiratory infections may need extra care.











#### **SYMPTOMS**

- Sore throat
- Eye irritation
- Runny nose
- Mild cough

- Phlegm/mucous production
- Wheezy breathing
- Headaches

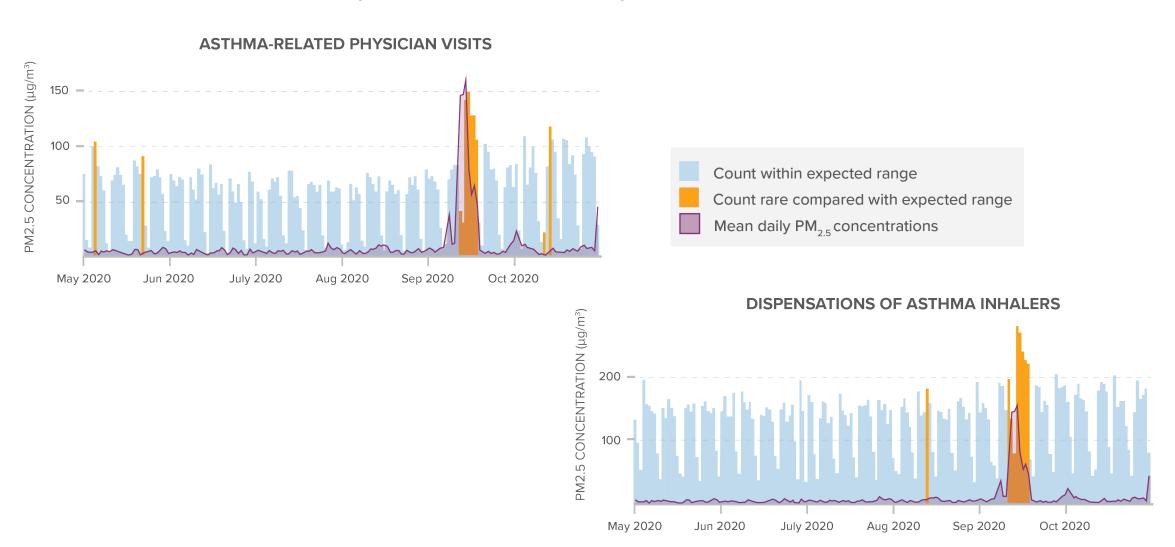
#### **MORE SEVERE SYMPTOMS**

- Shortness of breath
- Severe cough
- Dizziness

- Chest pain
- Heart palpitations

Anyone with these symptoms needs medical attention

## Local fine particulate matter ( $PM_{2.5}$ ) concentration and asthma-related health care measures (Vancouver, 2020)

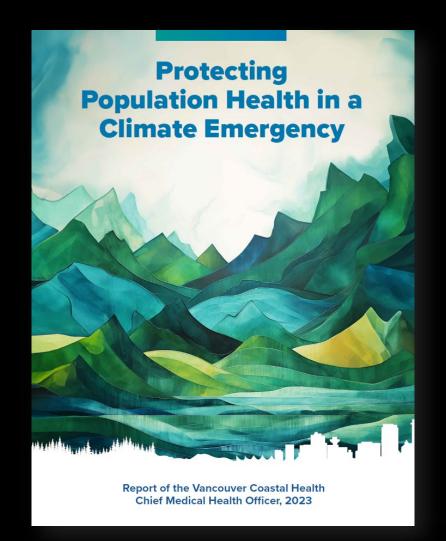


#### **Outline**

- Heat/wildfire smoke events and related illness
- Risks for health effects of heat and wildfire smoke
  - Biomedical
  - Environmental
  - Social
- Planning and action for extreme heat and wildfire smoke
- Resources

Extreme Heat and Human Mortality:
A Review of Heat-Related Deaths in B.C.
in Summer 2021

Report to the Chief Coroner of British Columbia Release Date: June 7, 2022





ina Report to the Chinate Action Secretariat

By Lilia Yumagulova, Tira Okamoto, Erica Crawford, Kerri Klein

April 2022





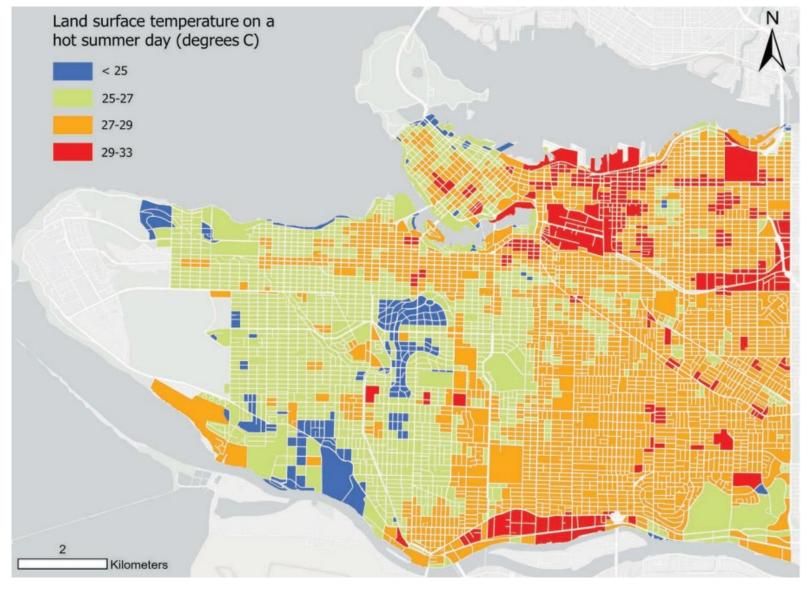
## Extreme heat: People at higher risk

- Older adults, aged 60 years or older
- People who live alone
- People with pre-existing health conditions
- People with mental illness, e.g. schizophrenia
- People who use substances, including alcohol
- People with limited mobility
- People experiencing homelessnesss or marginal housing
- People working in hot environments
- People who are pregnant
- Infants and young children



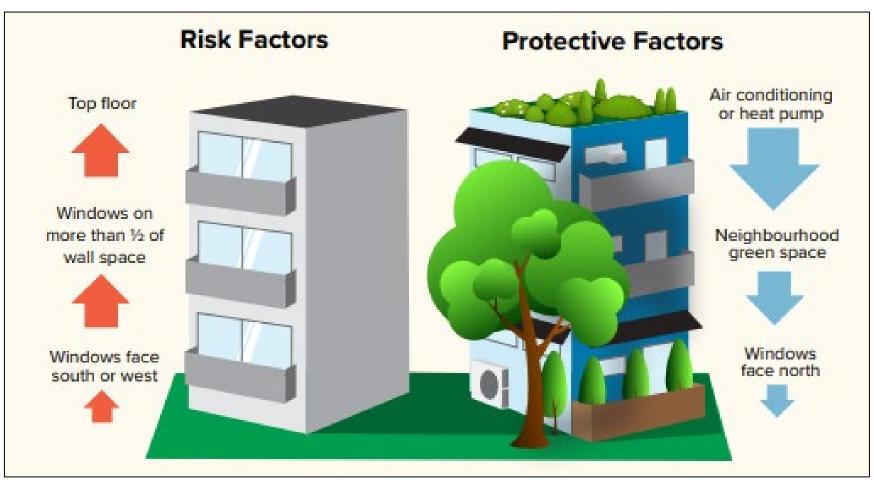
# **Environmental** risk for extreme heat

- Sparse vegetation
- Darkly hued roofing and paving materials
- Lack of neighbourhood green space
- → Higher heat load in urban areas: "urban heat islands"



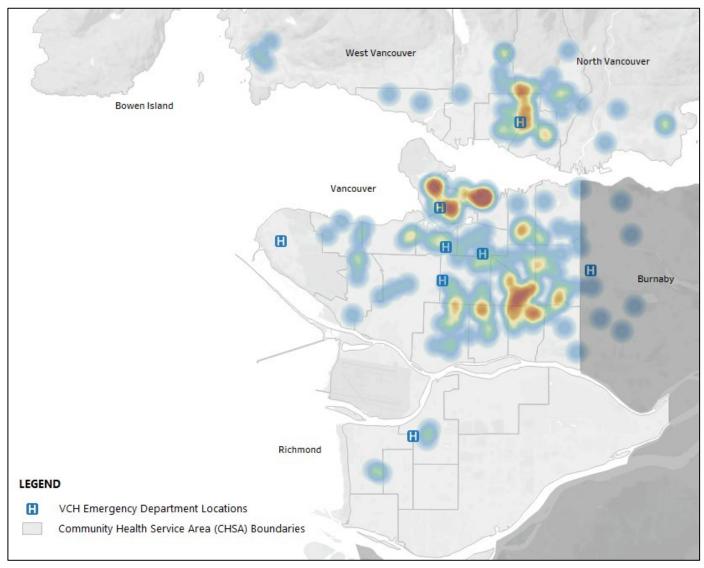
City of Vancouver: Climate Change Adaptation Strategy Update, 2024-25 Update

## Heat and housing



Protecting population health in a climate emergency: Report of the Vancouver Coastal Health Chief Medical Health Officer, 2023

## Heat-related VCH emergency department visits, by place of residence (June 25-July 2, 2021)



### Social risks for extreme heat

- Reduced access to cooling spaces and other heat mitigation measures (e.g. A/C)
- Social isolation and barriers to reaching help, including health and social services
- Socially vulnerable groups may be more likely to live in neighbourhoods with environmental vulnerability





## Risks for impacts of wildfire smoke

#### More sensitive

- People with pre-existing medical conditions (e.g. asthma, cardiovascular disease)
- Infants, young children, and people who are pregnant
- Older adults

#### More exposed

- People who are homeless and under-housed
- People who live in spaces without air filtration
- People who work or are active outdoors

#### THOSE MOST AFFECTED









http://www.bccdc.ca/health-info/prevention-public-health/wildfire-smoke

### **Outline**

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## Actions to keep people cool

- Seek cooler spaces
- Drink plenty of water and other liquids
- Limit physical activity
- Take a cool shower or put part of body in cool water
- Wear a wet shirt or apply damp towels to skin
- Wear loose fitting, light colored breathable clothing
- Monitor indoor temperature and watch for symptoms



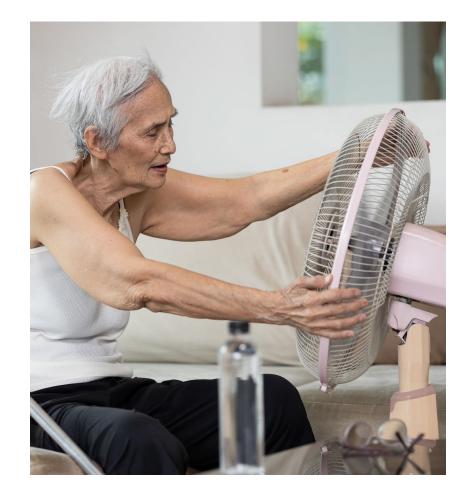


# Actions to help keep spaces cool

- ✓ Use A/C or heat pumps
- ✓ Close blinds/shades to block sunlight
- ✓ Use external window shading and/or external window films
- ✓ Close windows during the day (approx 10am to 8pm) and open windows overnight

## **Extreme Heat: Dangerous Indoor Temperatures**

- Indoor temperatures over 26°C (79°F): Increasing risk of heat-related illness for heat-vulnerable people.
- Indoor temp over 31°C (88°F): Significant risk of heat-related illness for heat-vulnerable people.
- If in doubt, help people move to a cooler space.





## **Notes on fans**

- Fans do not lower core body temperatures – do not rely on a fans as a primary cooling method.
- <u>Do not</u> direct fans toward the body when indoor temperatures are very high (over 35°C).
- <u>Do</u> use fans strategically to help move cooler air into living spaces overnight.



## Optimizing benefits of cool/clean air spaces

- Well-advertised in advance of hot days
- Familiar spaces
- Longer hours are ideal
  - It can take many hours for susceptible people to cool down
- Low-barrier approach, welcoming to diverse communities
- Location, transport options
- Outdoor cooling centres are also possibilities
- Options for pets
- Something to do!
  - Programming with advice of communities



## **Protection from wildfire smoke**



- Seek clean filtered indoor air
- Take it easy outdoors. The harder we breathe, the more smoke we inhale.
- An N95 respirator can help provide protection from wildfire smoke.

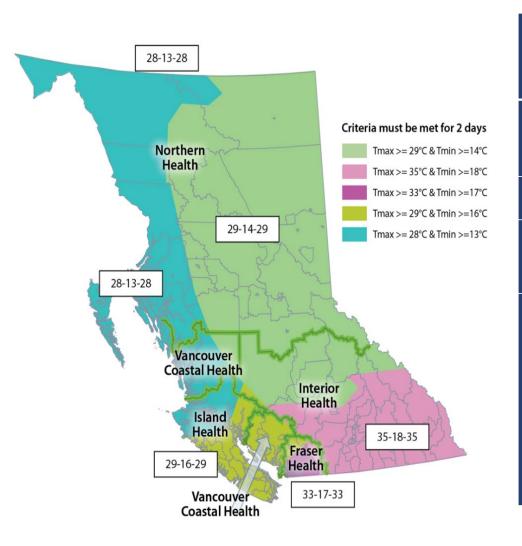


## Considering heat and air quality together

- Periods of poor air quality may overlap with extreme heat events during the summer
- Many risks heat-related illness are also important for air quality impacts
- Heat is a greater immediate health risk than smoke for most people, so cooling should generally be prioritized
- Key for <u>both</u> heat and smoke events: <u>Cool</u>, <u>clean</u> indoor air



#### **BC Heat Alert Response System (BC HARS)**



Alert level	Heat Warning	Extreme Heat Emergency
Public health risk	Moderate (5% increase in mortality)	Very high (20% or more increase in mortality)
Descriptor	Very hot	Dangerously hot
Historic frequency	1-3 per summer season	1-2 per decade
Criteria	Southwest = 29-16-29* Fraser = 33-17-33* Southeast = 35-18-35* Northeast = 29-14-29* Northwest = 28-13-28*  * °C (daytime high, nighttime high, daytime high)	Heat warning criteria have been met and forecast indicates that daily highs will increase day-over-day for 3 or more consecutive days

# **BC Heat Alert and Response System: Key recommendations for NGOs**

#### **Pre-season**

- Create or review heat response plan
- Organize or participate in forums to discuss collective responses to extreme heat
- Identify and display/share information on extreme heat (e.g. VCH and BC Housing resources)
- Identify clients who may be at high risk for severe illness during extreme heat
- Explore options for temporary cooling spaces and clean air on-site
- Create lists of cooling and cleaner air centres/spaces
- Explore potential options for transportation to cooling

#### **During a Heat Warning**

- Conduct community outreach, focusing on high-risk populations to raise awareness
- Share local cooling centre information, consider establishing cooling spaces

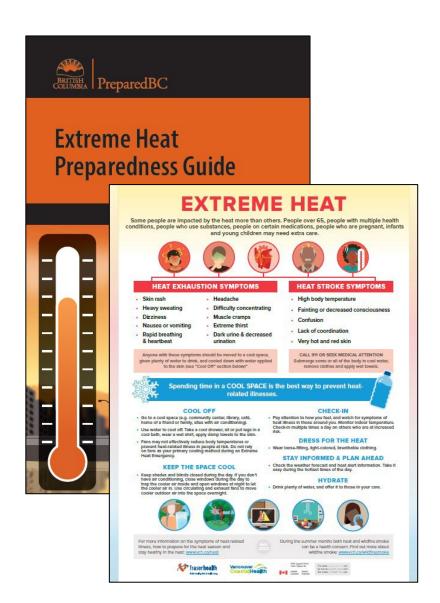
#### **During an Extreme Heat Emergency**

- Engage in wellness checks for people at high risk (VCH Heat Check-In Support Framework available)
- · Increase community messaging
- Consider expanding hours of temporary cooling spaces

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#### **Resources: Extreme Heat**



#### PreparedBC Guide: preparedbc.ca/extremeheat

 Advice for creating a heat plan, and actions for heat events. For example: Home preparation, awareness of neighbourhood cool spaces, identifying and checking on an 'extreme heat buddy'

#### Vancouver Coastal Health materials: vch.ca/heat

- Information on symptoms of heat exhaustion and heat stroke, risk factors, actions for community members
- Guidance for NGOs conducting community wellness checks
- Advice for operators of rental housing buildings and licensed care facilities

## Wellness check tools

#### VCH NGO Heat Check-In Support Framework:

- Framework for organizational check-in procedures and answers to common questions
- Identifying heat-vulnerable people and spaces
- Mitigation and emergency actions for someone suffering from heatrelated illness
- Tools to carry for in-person wellness checks
- vch.ca/heat

#### NCCEH Heat Check-In Guide:

- Instructions for individuals without health training on how to conduct a check-in
- bit.ly/ncceh-heat-tool

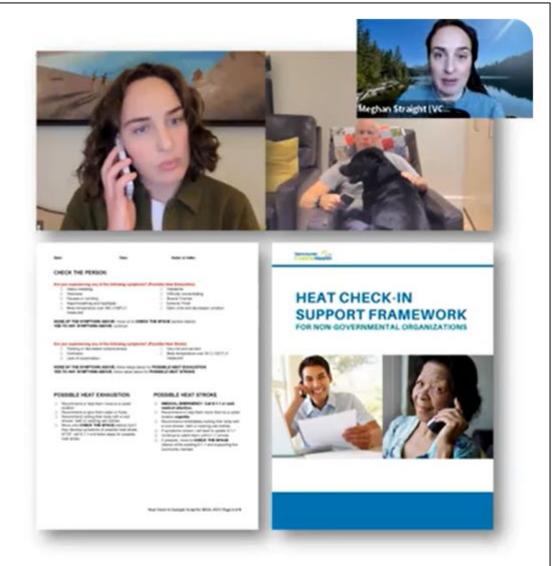




## VCH Heat Check-Ins Training Package

#### Resources:

- Extreme Heat Check-Ins: Training video
- Extreme Heat Check-Ins: Train-the-trainer video
- Heat Check-In Practice Scenarios: Facilitation Guide
- Heat Check-In Practice Scenarios
- Heat Check-In Support Framework for NGOs
- Example Heat Check-In Script





#### **Heat Check-In Training Video**

#### **Resources: Wildfire smoke**

- BC Centre for Disease Control materials:
   http://www.bccdc.ca/health-info/prevention-public-health/wildfire-smoke
- Vancouver Coastal Health materials: vch.ca/wildfire
  - Information on health effects and symptoms,
     risk factors, actions for community members
  - Information on air quality monitoring tools and advisories



#### Health Effects of Wildfire Smoke

Wildfire smoke is a complex mixture of fine particulate matter (PM<sub>2.5</sub>) and gases, such as carbon monoxide, nitrogen oxides, and volatile organic compounds. The mixture can change depending on the fuels, the weather, and distance from the fire. Wildfire smoke causes episodes of the worst air quality that most people will ever experience in British Columbia.

The BCCDC has created fact sheets with information about wildfire smoke and its health impacts, including information on how to prepare for wildfire season. You can view and download the fact sheets here:

- · Health effects of wildfire smoke
- How to prepare for the wildfire smok
- Portable air cleaners for wildfire smo
- Wildfire smoke and air quality
- The composition of wildfire smoke
- Wildfire smoke and outdoor exercise
- Wildfire smoke and Air Quality Healt
- Home-made box air fan filters
- Face masks for wildfire smoke
- Wildfire smoke during extreme heat
- Translated Content



pregnant, infants and small children, older adults and people with respiratory infections may need extra care.





production

Wheezy breathin







Shortness of breath - Chest pain

Severe cough - Heart palpitati

Dizzines

Anyone with these symptoms needs medical attention

REDUCE EXPOSURE

COOL & FILTER

Filter indoor air using portable HEPA air filters.

Keep windows and doors closed during high smoke times but on hot days, make sure the indoor temperature is at a comfortable level because heat can be dan

Reduce outdoor physical activities and stay indoors when



REDUCING EXPOSURE to wildfire smo



#### STAY INFORMED & PLAN AHEAD Check the latest local air quality readings and advisories

 Check the latest local air quality readings and advis regularly.

#### CHECK-IN

 Pay attention to how you feel, and watch for syr in those around you.

#### HYDRATE Drink plenty of water, and offer water to those in your care

brink pienty of water, and oner water to thos

#### RELOCATE community centers

 Go to local libraries, community centers or other public sp that have central air conditioning and cleaner air.











the summer month

Further information on the health effects of wildfire smoke, how to prepare for the season, and the use of portable air cleaners can be found at <a href="www.ch.ca/wildfiresmoke">www.ch.ca/wildfiresmoke</a>





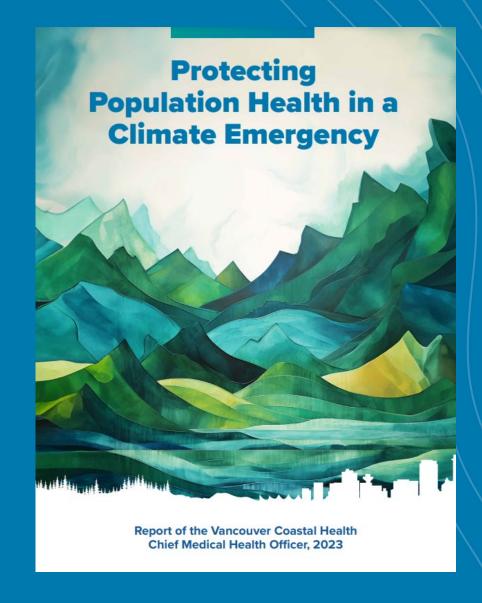




## Thank you

vch.ca/heat vch.ca/wildfire vch.ca/climatechange

Michael.Schwandt@vch.ca
Healthy.Environments@vch.ca







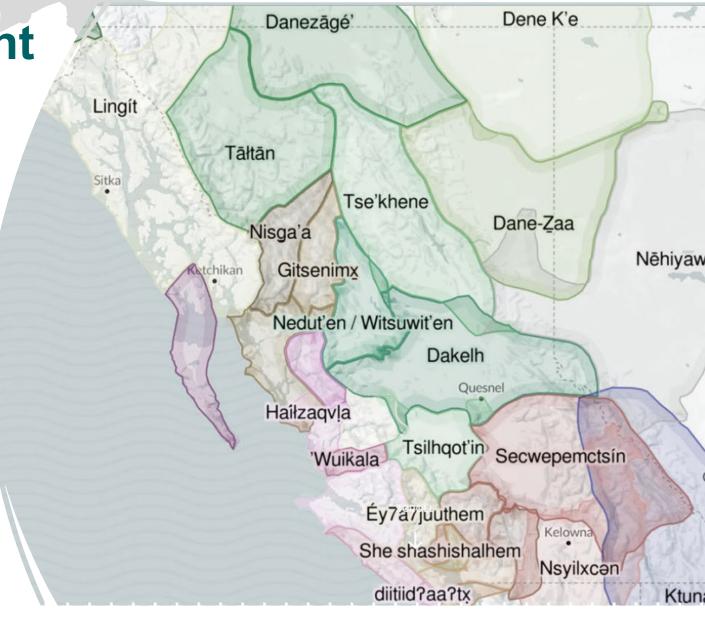
## **BC** Housing Extreme Heat Response

Dexter Charlebois-Holmes, Operational Services

May 8, 2024

**Land Acknowledgement** 

BC Housing gratefully acknowledges that we live and work on the unceded traditional and ancestral homelands of hundreds of Indigenous Peoples and Nations across British Columbia, each with their own unique traditions, history and culture. We are committed to strong Indigenous partnerships and relationships based on principles of Reconciliation.





## **Presentation Outline**



INTRO TO BC HOUSING



BC HOUSING EXTREME HEAT RESPONSE: AREAS OF ACTIVITY



CHANGES TO HOW
NEW BUILDINGS
ARE BUILT AND
EXISTING
BUILDINGS ARE
RENOVATED



OF A GOOD
EMERGENCY
RESPONSE PLAN



TOOLS & RESOURCES

#### **BC** Housing

## Building BC Homes for Today. Hope for Tomorrow.

#### Who we are

- Crown Agency BC Housing Management Commission
- Ministry of Housing (Annual Mandate Letter)
- Provincial Rental Housing Corporation (PRHC)

#### Working with municipalities to:

- Facilitate the creation of new affordable rental housing across the housing ecosystem
- Bring partners to create developments that are financially and environmentally sustainable
- Ensure consistency with regional and community priorities



#### **BC** Housing 101

#### **Our partners**

- Private sector
- Non-profit societies
- Provincial health authorities
- Government ministries
- Community groups
- Local governments





#### Who we serve

- People at risk of or experiencing homelessness
- People with disabilities
- Indigenous people and families
- Women and children at risk of violence
- Low-income seniors and families
- Buyers of new homes

110,000+ BC Households









#### **Areas of Activity**

- 1. Increasing Capacity Within the Non-Profit Housing Sector
- 2. Building Organizational Capacity within BC Housing
- 3. Reducing Risk of Overheating in New Construction and Existing Buildings
- 4. Research and Engagement
- 5. Collaborating with Stakeholders





## Changes for New Buildings – BC Housing

# BC Housing Design Guidelines and Construction Standards

(Technical Bulletin No.3)



Overheating sensitivity analysis using future climate files



Recommendations for passive cooling measures



Indoor air filtration adequate for wildfire smoke (MERV 13 or HEPA)

Publications & guides on addressing the risk of overheating, including <a href="Climate Ready Housing Design Guide">Climate Ready Housing Design Guide</a>



# BC Building Code Update, Effective March 2024

"Cooling requirements in one living space per home, not to exceed 26°C"

Photo: 330 Goldstream: awarded Best Multi-family Low Rise Development at the Vancouver Island Building Excellence Awards



#### **Emergency Management in British Columbia**



Planning and Mitigation



Response to a disaster



State of Local Emergency



Evacuation Alert vs. Evacuation Order



Provincial State of Emergency



## Key Elements of a Response Plan







Make a Plan



**Build a Kit** 

## What Information is Available for you?

bchousing.org/projects-partners/extreme-heat

#### Extreme Heat and Wildfire Smoke





Tenants can make use of dedicated extreme heat information to keep safe during hot weather.

If you are a non-profit housing provider in B.C. in need of extreme heat and wildfire smoke related equipment, see sourcing equipment.

# Quick Links Public Weather Alerts for BC & Tips to Beat the Heat - Poster HealthLinkBC - Beat the Heat & Tenant Extreme Heat Check-In Card BC CDC Wildfire Smoke & PreparedBC - Extreme Heat & PreparedBC - Extreme Heat Guide & PreparedBC - Ext

#### Health Impacts

Everyone is at risk of heat and wildfire smoke illnesses in the summer, and social housing tenants are at increased risk because they often have fewer resources.

#### Prepare a EHWS Response Plan

A guide to help non-profit housing providers develop an Extreme Heat and Wildfire Smoke Response Plan for their organization.

#### Planning and Communicating with Tenants

Building managers and housing providers should communicate with tenants and building staff about the risks of extreme heat and poor air quality, the signs and symptoms of related illnesses, and how to stay safe.

#### How to Cool a Space

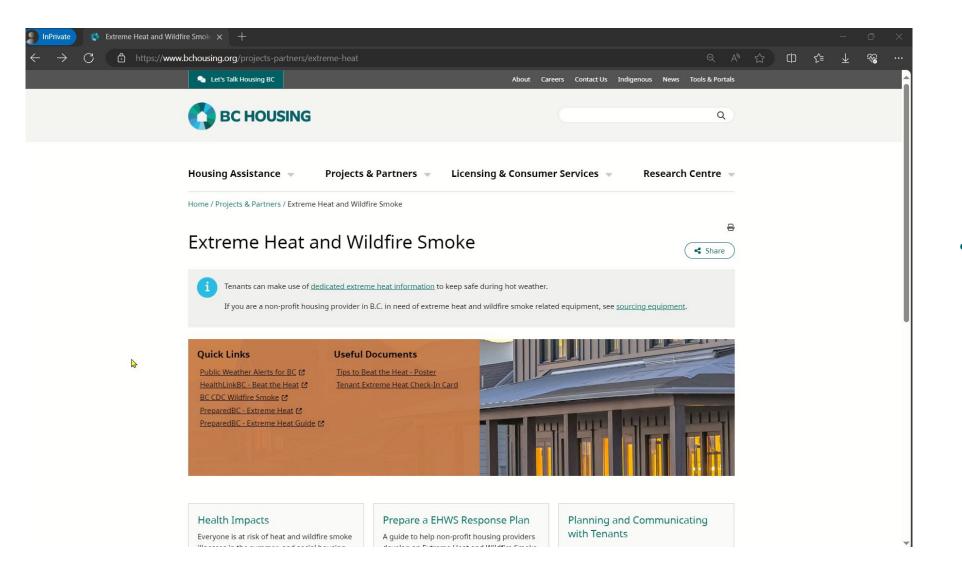
There are different actions building operators, staff and tenants can take to cool a space.

#### Resources and Webinars

The following resources and webinars will help you stay informed and prepared during extreme heat and wildfire smoke in BC.

#### Extreme Heat Information for Tenants

Find information on cooling centres, tips to beat the heat, and when to seek help.



# Tools & Resources

#### Sorry We Missed You!

Date:	
9 Time:	
Address:	
Unit Number:	

You can reach us at:



See a doctor if you are not feeling well, and in a medical emergency call 911. For non-emergency health information and services call 811.

For Deaf and hearing-impaired assistance call 7-1-1 in BC. Translation services available in more than 130 languages upon request.

#### Tips to Beat The Heat



#### **Cool Your Body**

- Wet clothing to help bring down body temperature
- Use water-soaked cloths or cooling packs on neck/wrists

Provide shade & cool drinking

Never leave pets unattended

Plan outdoor activities during

In cars or direct sunlight

Asphalt might be too hot

If taking medications, ask your doctor, nurse, or pharmacist if you need to be

Some medical conditions

may Increase vulnerability

during hot weather

cooler parts of day.

for bare paws

Ask Your Doctor

extra careful

Sit in or put legs in cool (not cold) bath

Protect Your

water & baths



#### Hydrate

- · Drink water/cool liquids
- · Eat fresh fruit & salads
- · Drink before you feel thirsty. Thirst is not the only indicator of dehydration



#### Reduce Indoor Heat

- Daytime: cool living and working areas by closing windows, and use window coverings, air conditioners and misters
- Nighttime: keep windows open, with a fan near window to bring in cool air



- umbrella · Avoid / limit strenuous
- activities during hottest part of the day
- Find shade if you need to be outside
- Use sunscreen



#### Check on Others

 Visit or call family & neighbours when you can



#### Alcohol & Caffeine

· These can lead to dehydration



#### xtreme heat can be dangerous.

ww.healthlinkbc.ca/more/health-features/beat-heat ww.bchousing.org/projects-partners/extreme-heat



## **Tips to Beat** the Heat:

## Poster & Leaflets

## KEEP PETS COOL DURING EXTREME HEAT



Cool down your pets by giving cool treats / cold food / chilled wet food. Use a cooling body wrap, cooling vest or cooling mat.

Keep pets indoors during the hottest times of the day. Plan walks for morning or evening hours, play on grassy areas, take breaks and bring water.



Don't leave your pets like birds in direct sunlight or dogs in crates without fresh water or in the sun. Fans don't cool pets as effectively as humans.





Don't walk your pets midday or let them walk on asphalt for long periods of time.

## **Cool Kit Suggestions**



Thermometer



**Gel Compress** 



**Small Tote** 



**Water Bottle** 



**Towel** 



**Spray Bottle** 

## **How Can Non-Profits** be Prepared / **How Can BC** Housing Support you?



Check your Extreme Heat and Wildfire Smoke inventory



Identify inventory items that need to be restocked – if you need additional funding contact your Portfolio Manager (NPPM/SHA)



Proceed to purchase Extreme Heat and Wildfire Smoke supplies (Do No Wait!)



Monitor Heat Alert updates from Ministry of Health and our Partner Bulletin



When a Heat Alert is announced – If your region is facing supply shortages contact <a href="mailto:extremeheat@bchousing.org">extremeheat@bchousing.org</a>

# What supplies can BC Housing support with?

## We continue to support reasonable requests to provide cooling spaces in common areas, this includes:

- Air Conditioners (different types to support small and large spaces)
- Fans (different types to support small and large spaces)
- Air Purifiers
- Tents
- Water
- Misters
- Cooling Kit Supplies (tote, cooling towel, ice pack, water bottle, spray bottle thermometer)
- Sunscreen (for outreach/homeless)
- N95/ K95 masks

## **Share Out Your Success!**

We Are Always Looking for Creative Solutions to Share with the Sector

**Share your Organizational Solutions / Experiences with us:** 

extremeheat@bchousing.org

# Emergency Management and Service Continuity Program for Women's Transition Housing & Support Programs

Lisa Benini & Louise Godard





#### **Project Overview**

Emergency Management and Service Continuity (EMSC) Planning Process

EMSC Program 8 Stage Process and Online Platform





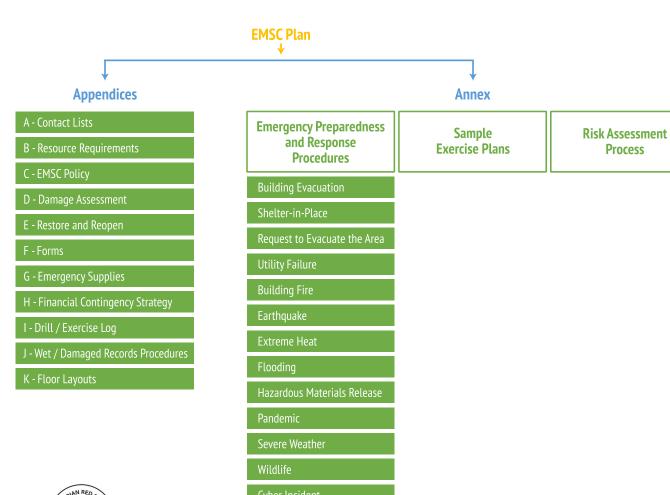
### **Emergencies and GBV**

- ► Emergency Management and Service Continuity planning does not historically take into account intersectionality and how people may be impacted differently due to their gender, age, race, ethnicity, religion, ability and immigration status.
- Everyone can be equally exposed to a hazard, but gender can impact an individual's level of vulnerability and access to resources.
- ▶ Violence against women, children and youth will continue, and often escalate, during, and post-event.
- ► EMSC planning can mitigate against loss, reduce vulnerability, and ensure equity of outcomes, so service providers may continue their important work.





## **EMSC Program Tools and Templates**

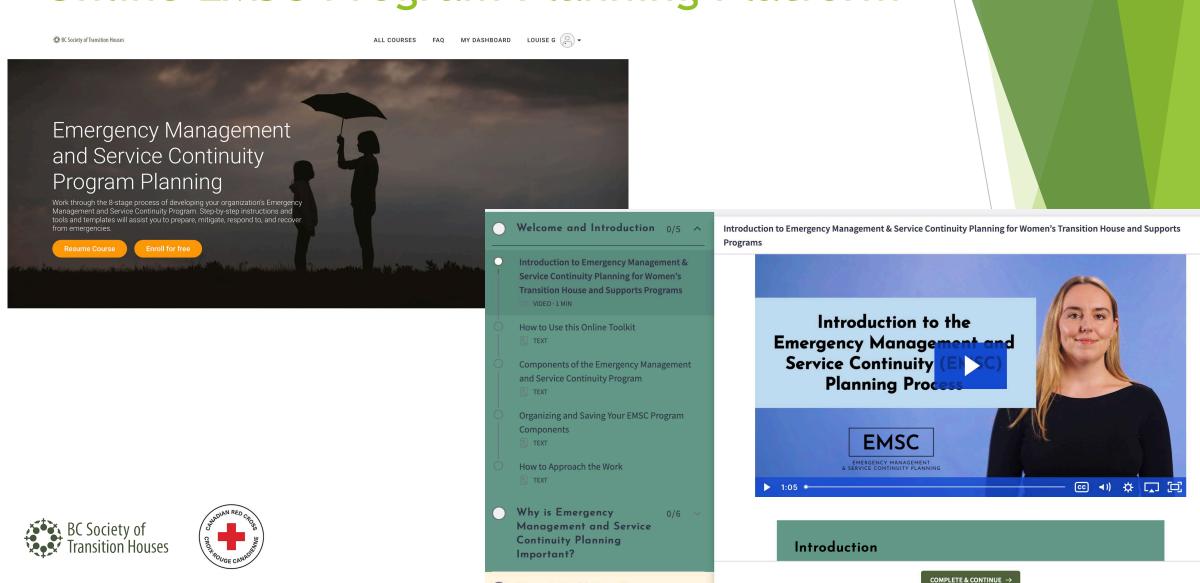


Air Quality Event





## Online EMSC Program Planning Platform



Stage 1: Build Your Team 0/3 V

## Staged Approach

#### Stages

Stage 1: Build Your Team

Stage 2: Assess your Risks

Stage 3: Protect your People and Property

Stage 4: Determine your Operational and Resource Requirements for Service Continuity

Stage 5: Develop Financial Contingency Strategy

Stage 6: Develop the EMSC Plan

Stage 7: Train and Exercise

Stage 8: Maintain the EMSC Program





## Sample - Completed Risk Assessment

Threats / Hazards	Probability	Impact on Life	Impact on Facility	Impact on Operations	Impact on Dependencies	Total Risk Impacts	Rationale
Pandemic Pandemic	5	5	2	4	4	18.75	We recently experience a Pandemic Event which highly impacted our organization and the world at large. There is a good possibly it will happen again.
Flooding	4	4	5	5	4	18	We have had previous threat from the river water rising last year as our building is in a low lying area and close to the river.
Building Fire	4	4	5	5	4	18	No sprinkler system in building and near a forest area.
Damaging Earthquake	3	5	5	5	5	15	Our building is very old and would be suspectible to a damaging earthquake. It also sits on reclaimed land.
Severe Weather	5	2	3	3	3	13.75	We live in an area where the weather has been severe and impacted our power.
Extreme Heat	4	2	3	4	2	11	We have had severe heat in the last few years that has impacted our clients.
Power Outage	4	2	3	4	2	11	We have had power outages at least 2 to 3 times per year due to severe weather.
Wildfire	2	3	5	4	4	8	Our building is close to a forest area and we have had wildfires in previous years.
Loss of Utility (Water)	2	3	3	3	1	5	We have not had any problems with loss of access to water but if we did we wouldn't be able to continue to operate.
Loss of Utility (Gas)	2	2	3	3	1	4.5	We have not had any problems with loss of access to gas for heating our building. If we did in the winter we wouldn't be able to stay very long in the building.
Hazardous Material Release	2	3	1	3	1	4	Our building is near an industrial area where a major gas plant is within close proximity. If there was a leak we would have to shelter in place as it would not be safe to leave the building.



## Develop Emergency Preparedness and Response Procedures

- 1. Building Evacuation
- 2. Shelter-in-place
- 3. Request to Evacuate the Area
- 4. Utility Failure (i.e., power outage, loss of gas or water)
- 5. Building Fire
- 6. Earthquake
- 7. Tsunami

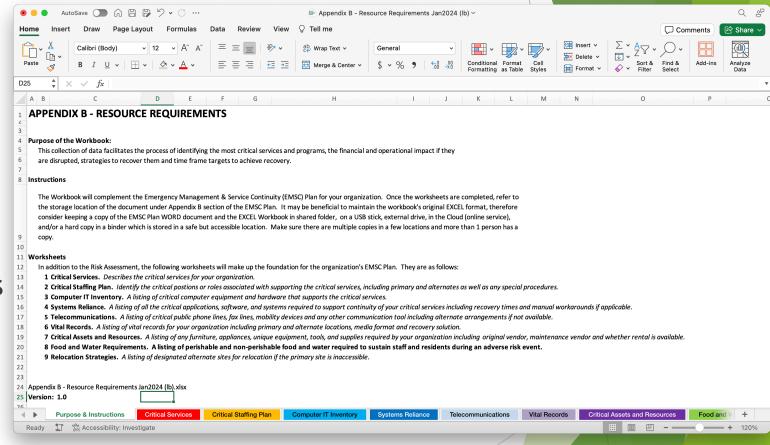
- 8. Extreme Heat
- 9. Flooding
- 10. Pandemic
- 11. Severe Weather
- 12. Wildfire
- 13. Air Quality Event
- 14. Cyber Incident
- 15. Hazardous Material Release





## 4 Resource Requirements

- Critical Services
- Critical Staffing Plan
- Computer IT inventory
- Systems Reliance
- Telecommunications
- Vital Records
- Critical Assets and Resources
- Food and Water Requirements
- Relocation Strategies

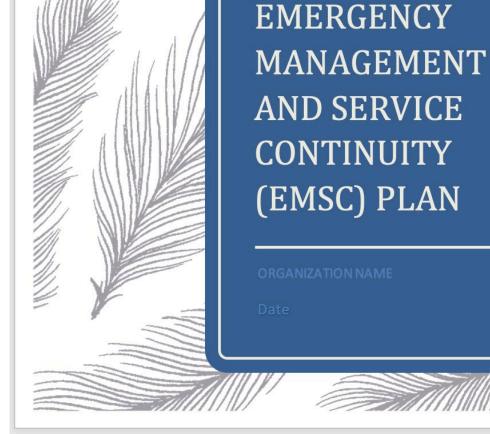






## Develop the EMSC Plan

- 1. Before an adverse risk event
- 2. Responding to an adverse risk event
- 3. Post adverse risk event
- 4. Appendix
- 5. Annex







Take the time to do it now so you will be ready for the inevitable emergency!

Something is better than nothing, even if it's just getting a core team together to have conversations about what you would do. Do not be intimidated by writing things down. In an emergency we have no choice but to assist the women and children in our programs, so take some time to think about potential scenarios, roles/responsibilities, and backup plans in advance.

Allocate time to do the work.

Don't become overwhelmed with trying to look at everything at once. Take it section by section and build your own binder as you complete tasks. Also - Use only what is useful to you and your agency (we all have different needs and sizes!)

Take your time to read
through how to use the
templates. Remember that it is
not a one size fits all. You can
change and adjust to what
works for your agency.

#### Next Steps

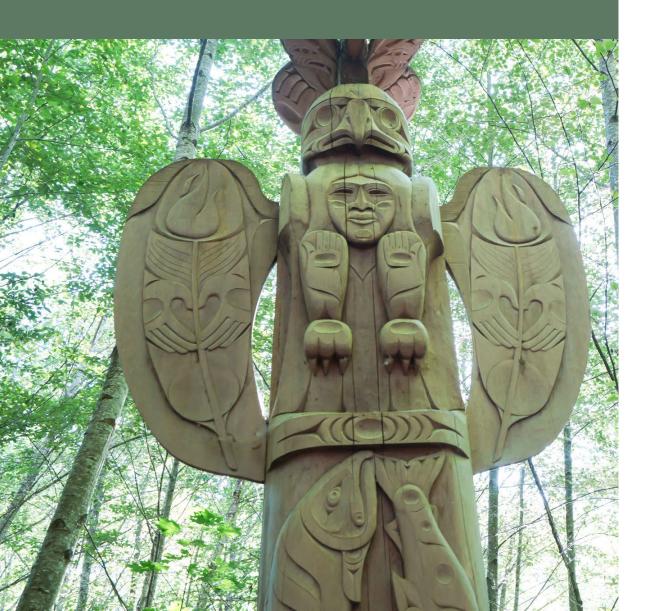
- ▶ Justice Institute of BC Project -BC Housing and BC Society of Transition Houses
  - Identify best practices for working with local authorities to increase buy in and collaboration
- Community of Practice
- Advocacy

- Contact Us
  - ► Louise Godard, EMSC Project Coordinator louisegodard1@gmail.com
  - Lisa Benini, Business Continuity Expert <a href="mailto:ltbenini@gmail.com">ltbenini@gmail.com</a>





## ABORIGINAL HOUSING MANAGEMENT ASSOCIATION



# Stories of Extreme Heat among Urban Indigenous Households in BC



Overview of engagement with AHMA's membership

May 8, 2024



## Land Acknowledgement

I respectfully acknowledge that I work, live and play on the unceded and traditional territories of the xwməθkwəyəm (Musqueam), Skwxwú7mesh Úxwumixw (Squamish), səlïlwətaʔł (Tsleil-Waututh) and kwikwəλ'əm (Kwikwetlem) Nations.

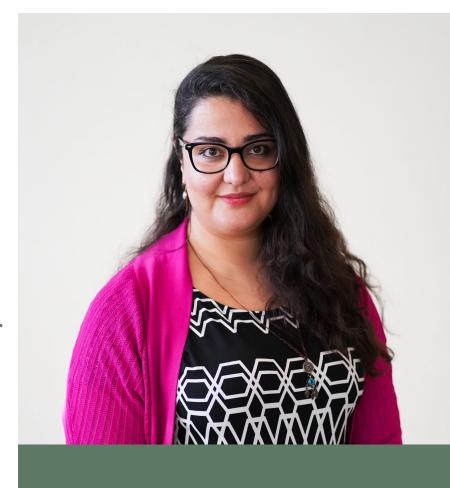
At AHMA, we honour Elders past, present, and future from all Nations and traditional territories.

The land and waters colonially named B.C. are home to over 290,000 Indigenous people and more than 200 distinct First Nations. (Statistics Canada 2021).

## **Shahed Shafazand**

Energy Projects Coordinator, Engagement and Technical Services

- 5+ years in the Indigenous non-profit sector
- 7+ years in the clean energy sector
- BA Chemical Engineering



**ASSET STRATEGIES** 

## **AHMA**

- First Indigenous housing authority in Canada
- 54 Indigenous Housing & Service Provider members
- Represent over 8,700
   Indigenous families
- Partners with the province of BC
- AHMA Members make up 1/3 of all Indigenous housing providers in Canada
- Advocating for self-agency

Aboriginal Housing Management Association

Celebrating 25 Years





#### **ASSET STRATEGIES**

Supporting maintenance planning, capital planning, capital renewals and new construction.



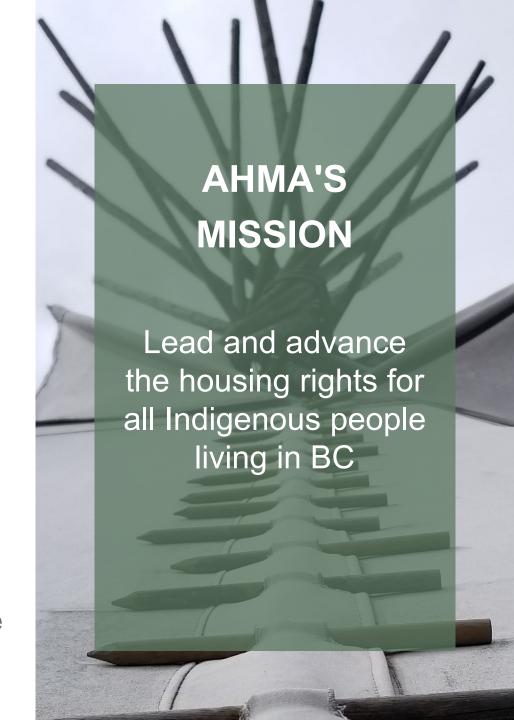
#### **ADVOCACY**

Advancing the quality of housing for the collective interests of our communities.



#### **OPERATIONS**

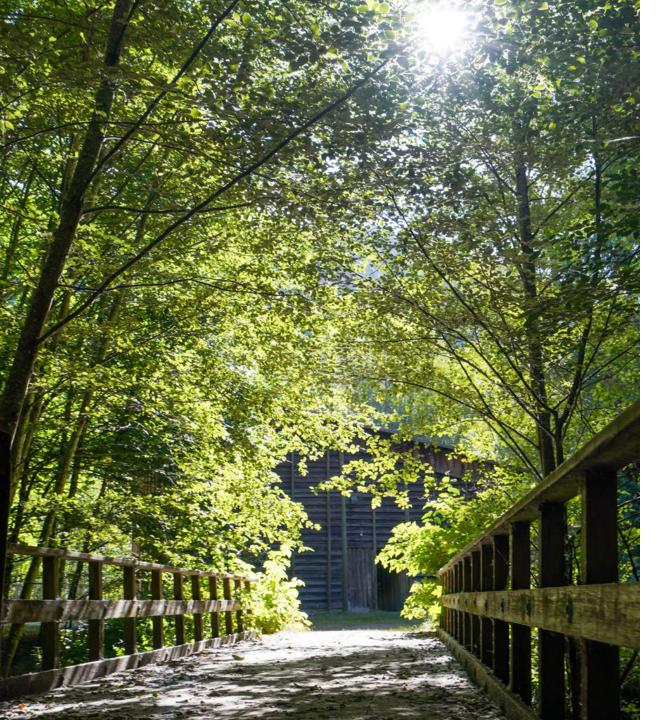
Ensuring the effective delivery of safe, affordable, secure, culturally appropriate housing, programs and services.





# Agenda

Our research journey
What we heard
A path forward
Questions/Discussion



# Why this research? Why now?

- Indigenous and equity-deserving populations are at a higher risk during extreme heat events.
- BC experienced an acute extreme heat event in the summer of 2021.
- Indigenous populations were deeply impacted due to many systemic barriers.



The 2021 heat dome was incredible. I have never experienced anything like it in my life.

I think we got to about 48 Celsius in Chilliwack, which is just unbelievable.

Anonymous member, Stó:lo Service Agency

# Key Messages

## **Heat impacts & intersectional barriers**

Extreme heat events, poor housing conditions, and other challenges faced by Indigenous peoples are interconnected.

For Indigenous peoples by Indigenous peoples (FIBI) Indigenous housing providers have long-lasting, deep relationships with their tenants.

### **Cascading crises**

Housing providers reported dealing with multiple crises, including extreme heat, wildfires, and smoke.

### **Capacity & resources**

Limited capacity, funding, and resources are major challenges among housing providers.





### Place-based approach

Rural and urban communities experience extreme heat events differently.

Infrastructure & housing conditions
All housing providers agreed that improving energy efficiency is an essential step.

Community support & partnerships
Housing providers advocated for building intentional alliances.

### **Trauma-informed & reciprocal**

Trauma-informed approaches to extreme heat response planning are essential to protect the most vulnerable.

We tell tenants that they need to prepare for higher electrical bills during the summer.
That can be a strain, especially for our tenants that are on a [fixed income] and can afford only so much.

Anonymous member,

<u>Dakelh & Quesnel Community Housing Society</u>



# Centering Indigenous rights & ways of being

Uplifting Indigenous sovereignty, culture, and knowledge systems.

### Housing is the foundation

Climate-resilient, culturally supportive & human-centered homes.

### Placed-based approach

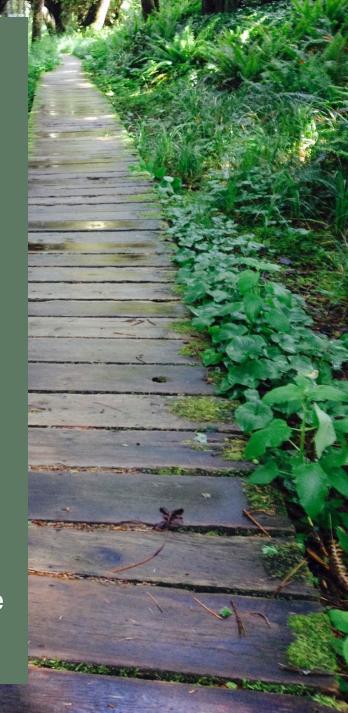
Regional approach to extreme heat response planning.

### **Holistic response**

Heat response strategies must be holistic, resilient to uncertainty, and contain a contingency plan.

### **Towards decolonization**

Address the complex interconnected challenges rooted in the historical colonial systems.



# Questions

Please ask questions by raising your Zoom hand

Visit our website AHMA-bc.org to read the full report.

Thank you



# Turning Points Collaborative Society

Preparing and responding to Extreme Heat, Wildfire Smoke and Wildfire Evacuations

# TURNING POINTS

COLLABORATIVE

## Introductions

Kelly Fehr

- Executive Director of Operations
- Responsible for operations in Enderby, Vernon, Kelowna, West Kelowna and Summerland

# **Topics**

- Procedure for Activating an Extreme Weather Response
- Fire Evacuation Planning
  - Who to include
  - Alternate Command Center
  - Emergency Response Center support
  - Notifications
  - Staff Coordination
  - Site Salvaging and Closure
  - Client Transport
  - Temporary Accommodations
  - Resuming Regular Operations

# Procedure for Activating an Extreme Weather Response

Partner organizations track weather reports and IH alerts to see if conditions are meeting heat wave definition

- In the Okanagan "Heat Waves" are when temperatures are above 35°C for two consecutive days and overnight temperatures remain above 18°C.
- A "Heat Emergency is when heat wave temperatures last longer than two days AND there are concerns for the health and safety of vulnerable populations. In this situation, other levels of government (Province of BC, IH, and the City of Vernon) may initiate additional warnings, protocols and resources.

# Communication procedures between providers during a heatwave, heat emergency or wildfire smoke Event

- Partner organizations use the COOL Team email distribution list for easy communication with service providers/Bylaw/RCMP/IH
  - Monthly COOL Team Meeting
  - Updates on program changes are emailed to the team in real time and provided to clients.
  - The Survival Guide and other related brouchures are updated and provided to people at the library, emergency shelters and though outreach teams.

# Communication procedures to notify people who are unsheltered during a heatwave, heat emergency or wildfire smoke event

- Social Planning Council develops "poster" of resources/first aid tips/map; can be adapted as needed
- COOL Team assist with warning clients of upcoming heat and smoke events and hand out posters with health tips and resources
- COOL Team will conduct wellness checks during the heat and smoke events and provide referrals/support as needed.

# Access to Air-Conditioned and Smoke Free Spaces

Service Providers extend the hours of operation as staffing capacity permits

- Shelter
- Upper Room Mission
- Street Clinic/MHSU/CSO/Service Providers
- Library
- Weekends Anglican Church for Saturday lunch

# Access to Drinking Water

- 24/7 access: Three exterior drinking fountains
- The Library has an interior drinking fountain
- MHSU and Salvation Army

  have water stations for filling bottles inside their facilities
- Shelters, URM, Street Clinic, MHSU, CSO, Service Providers

   access to water for clients during regular operating
   hours
- COOL Team delivers water to camps

## Resources to Be Activated During Heat Wave

(temporary measures until temperatures return to normal range or smoke significantly clears)

- Posters of resources/map/first aid tips are promoted/distributed by COOL Team
- COOL Team partners will provide access to additional bottled water as needed. COOL Team partners will assist with coordination and funding for additional bottled water (e.g. donations from community etc.)
- CSO to set up tents for additional shade during regular operating hours
- Street Clinic to set up a hose/mister, shade and water, located on outside patio during regular operating hours

### Where to access water



## FOUNTAINS AND REFILL STATIONS

- Polson Park Close to Band Shell, across from the Pavilion (fountain) 2600 BC-6
- Downtown washroom on 30th Avenue at 35th Street (fountain & bottle refill station)
- Downtown washroom at Bus Loop 31st Avenue at 30th Street (fountain & bottle refill station)
- DND Park (bottle refill station)
  Falaise Drive (access off Mission Road)
- Marshall Field back of soccer building (near washrooms) (fountain & bottle refill station) 6891 Okanagan Landing Road
- Ranger Park (fountain) 1900 47th Avenue

## WASHROOMS WITH POTABALE WATER

- MacDonald Park
  43rd Avenue and 27th Street
- Alexis Park
  3951 Alexis Park Drive
- Grahame Park 5700 Okanagan Avenue
- Polson Park two locations 2600 BC-6
- Kin Beach Park 7248 Tronson Rd
- 6 Paddlewheel Park 7815 Okanagan Landing Road
- Marshall Field 6891 Okanagan Landing Road

Subject to Seasonal Operation (April to October)



Where to find safe spaces with Air Conditioning, access water and Health & Safety Tips

### Sleeping Outside? Places to Find Water and Stay Cool!



- o Polson Park has an outdoor drinking fountain close to the Band Shell across from the Pavilion.
- o The downtown washrooms have exterior taps with drinking water.
- o The Library has an indoor drinking fountain.
- o MHSU (Downtown) and the Salvation Army House of Hope have water stations to fill bottles.
- Most service providers and outreach teams (Upper Room Mission, Street Clinic, Community Safety Office etc) will provide extra water, as needed.

### Thealth and Safety TIPS:

- · Protect yourself from the sun by staying in the shade, avoiding direct sun mid-day and wearing a hat.
- · Seek cooler, breezier areas when outdoors, such as large parks with lots of trees.
- Stay hydrated drink water regularly, even more than you think you need.
- Take it slow with outdoor activities rest and relax often if you feel fatigued.
- · Stay in tune with your body. Watch for thirst, fatigue, dizziness, confusion, weakness, and fainting.
- First aid includes cooling and hydration. If illness is severe, call 911.

#### 7

#### Spaces with Air Conditioning:

- o Okanagan Regional Library:
  - Mon: 10:00 am to 5:30 pm; Tue, Wed &Thu: 10:00 am to 9:00 pm; Fri & Sat: 10:00 am to 5:30 pm
- Upper Room Mission:
  - Monday to Friday: 9:00 am 4:00 pm; Saturday and Sunday: 2:00 pm 5:30 pm



# Procedure for dealing with media inquiries

 Each partner organization will handle media inquiries for their component of the extreme weather plan

# What if the wildfire smoke event escalates and the fire is at your door?

- Does your organization have a plan in place?
- Will you be prepared to transition your clients to an alternate location?
- Do your staff know how to respond? Will they participate in the evacuation of the site and transportation to the alternate site?
- Do you know what your staff will prioritize when salvaging an at risk site?
- Where will your staff stay when they are working from an alternate worksite in another community?

# In 2023 TPCS evacuated three worksites during the wildfires

What can you learn from our experience:

- We were prepared with a well thought out and documented plan that all staff were trained in.
- Regular planning meetings were held a minimum of once per day leading up to the evacuation, during it and as restoration work was completed at the sites.
- BC Housing and service providers from a neighbouring community were there to support us.
- Not everything will go as planned

# Fire Evacuation Planning, who to include

- Communications Department
- Finance Department
- Human Resources Department
- Operations Department
- Joint Occupational Health & Safety Committee
- Residents/Clients

## Questions? Comments?

Kelly Fehr, Director of Operations <u>kelly@turningpoints.ngo</u>
Turning Points Collaborative Society <u>www.turningpoints.ngo</u>
Serving Enderby, Vernon, Kelowna, West Kelowna and Summerland



Executive Director of Human Resources and Executive Director of Operations – The moment we realized the time spent consulting with staff and clients, calling transportation companies, looking for accommodations and training staff was all worth it.

Vision Group Consulting supported Turning Points Collaborative Society in creating the Emergency Fire Evacuation Plan.

Email: Vgconsultingcanada@gmail.com

### Resources:

- www.bchousing.org/projects-partners/extreme-heat
- bcsth.ca/project/risk-reduction-and-servicecontinuity-for-womens-transition-house-andsupport-programs-in-bc
- www.ahma-bc.org/research-reports

