

Session 1/3

March 2, 2021

11:30am to 1:00pm

# Adapting Community Leagues for Climate Change



**CHANGE  
COMMUNITIES  
FOR CLIMATE**



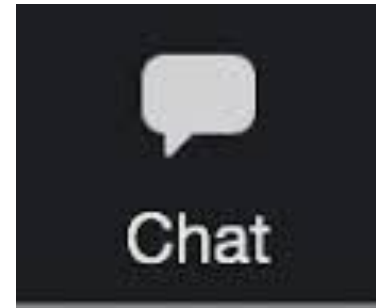
*Please take a moment to acknowledge the land, and people in the ancestral land or territory from where you are joining us today.*

# Treaty Acknowledgement

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# Introductions - Using Chat

- ***Introduce yourself:*** name your League (and location, e.g., NW, SE, E, etc.)
- ***Climate Change:*** what concerns you or excites you?



# Participant Feedback

<b>CONCERNED ABOUT</b>	<b>EXCITED ABOUT</b>
<ul style="list-style-type: none"><li>● food security</li><li>● the effects of climate change</li><li>● the effects of climate change on marginalized or vulnerable populations, both locally and in a broad global context</li></ul>	<ul style="list-style-type: none"><li>● opportunities in educating youth and the public about climate change issues</li><li>● what we can do in our own communities</li><li>● excited that CoE is supporting this at EFCL</li><li>● how to increase local community participation in climate adaptation.</li><li>● new information and new methods to slow down the change and tackle the effects</li><li>● for the innovation happening in the Edmonton area and looking forward to discussion</li></ul>

# Agenda - Session #1

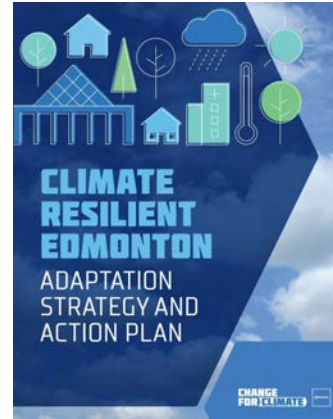
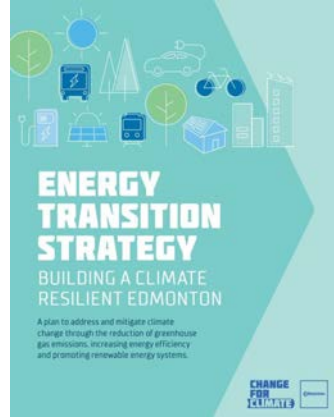


- 11:30** Welcome, workshop series overview
- 11:35** Session overview, introductions
- 11:45** Climate Change: Trends, Projections and Impacts (presentation)
- 12:15** Climate risks + impacts on Leagues (group work)
- 12:35** What we heard: Report back
- 12:50** Wrap-up, Upcoming Sessions, Evaluation
- 1:00** END

# CLIMATE CHANGE

## MITIGATION

action to reduce emissions that cause climate change



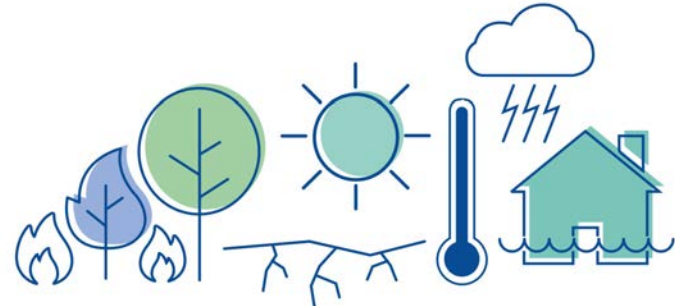
## ADAPTATION

action to manage the risks of climate change impacts

**GREENHOUSE GAS EMISSIONS CAUSE CLIMATE CHANGE**



**CLIMATE CHANGE IMPACTS EDMONTON**



# Climate Change Adaptation

The **EFCL's Green Leagues Energy 101** workshop series focuses on sustainable planning, energy efficiency, solar PV, and green funding opportunities for Community Leagues. Climate **mitigation**, or reducing greenhouse gas (GHG) emissions, is a primary objective.

The **Climate Adaptation** workshop series was introduced in November, 2019 to enhance understanding of how Edmonton's climate is changing and how we can *adapt* our communities and Leagues in anticipation of these changes.

**Climate change adaptation defined:** Adaptation refers to lowering the risks and negative impacts of a changing climate so that communities and ecosystems are prepared to cope with the new climate conditions. It also encourages us to embrace potential opportunities that may come with a changing climate.

# Climate Change: Trends, Projections and Impacts

**Presentation by:**

City of Edmonton - City Environmental Strategies



View a [slightly longer version](#) of the Climate Change presentation.

Links to this presentation and others in the Change for Climate “Lunchbox Series” can be found at [changeformclimate.ca/lunchboxseries](http://changeformclimate.ca/lunchboxseries)

# Climate Risks - Group Work

In small groups, discuss how climate risks might impact your League, both building and programming.

- **Group 1:** Extreme Heat and Fire Smoke
- **Group 2:** Extreme Cold + Strong Winds
- **Group 3:** Extreme Rain + Local Flooding
- **Group 4:** Extreme Weather + Power Outages
- **Group 5:** Changing Landscapes: Changes to our Ecosystem

The fourth icon down on the left is "sticky notes." Click on a sticky and write ideas as they are shared and discussed with the group.

## GROUP #1

Task: Discuss how **EXTREME HEAT** and **FIRE SMOKE** might impact your League, both building and programming.

changes in water in the area - potential impacts on algae growth, smell etc

Question of how flammable older playground equipment would be (wood)

impact on local wildlife - birds and animals

**Risk of  
grass  
fires**

limits to programming especially sports. Move programming indoors. Air filters. strain on air conditioning, increased utility. Strain on the power grid. Extreme heat damages soccer turf.

Extreme heat = increased risk of fire. Shortened hockey season with longer warm season. (Outdoor rinks)

The fourth icon down on the left is "sticky notes." Click on a sticky and write ideas as they are shared and discussed with the group.

## GROUP #2

Task: Discuss how **EXTREME COLD** and **STRONG WINDS** might impact your League, both building and programming.

**Programming:**  
Could look at expanding **INSIDE** spaces to allow for more year-round activities regardless of the weather

### **Strong Winds:**

**Programming:**  
Could look at expanding **INSIDE** spaces to allow for more year-round activities regardless of the weather

**Building:** Facade, roofing & grounds amenities need to be more securely attached or made of more robust materials

**Possible reduction in participation in league events due to poor weather.**

**Possible reduction in participation in league events due to poor weather.**

### **Extreme Cold**

**Rescheduling issues** creating extra work and fewer games played for participants due to poor weather.

**Building:** Affects HVAC - need to ensure systems will operate in extreme cold & reduce energy use to mitigate costs. (including air tightness)

The fourth icon down on the left is "sticky notes." Click on a sticky and write ideas as they are shared and discussed with the group.

## GROUP #3

Task: Discuss how **EXTREME RAIN** and **LOCAL FLOODING** might impact your League, both building and programming.

League building issues -- poor, old foundations; degrading, unsafe/unhealthy structures that aren't built/maintained to withstand current weather needs;

capital projects to regrade land surrounding halls or to upgrade halls are high/prohibitive

Damage to league outdoor land - turf maintenance, rink maintenance

Extreme rain and flooding events can also lead to physical health problems in league halls -- risks of mold/mildew

Diversion of community energy + time + resources + money away from community activities.

Outdoor programming impacts - increased storms make it difficult to plan summer outdoor events. Large events require significant planning ahead. Supplying/renting large outdoor tents adds additional cost.

Many leagues don't have halls, so they rely on summer outdoor space. Halls are often not big enough to host large events, another reason outdoor spaces are valuable

The fourth icon down on the left is "sticky notes." Click on a sticky and write ideas as they are shared and discussed with the group.

## GROUP #4

Task: Discuss how **EXTREME WEATHER** and **POWER OUTAGES** might impact your League, both building and programming.

**Rink lights**

**Dark inside - hard to program**

**Aged infrastructure (ie old roof may not withstand high rain events)**

**Flooding**

**Rink usage**

**food storage (if power goes out)**

**Damage to solar panels from hail**

**Funding from programs to fix infrastructure**

**food forest / community garden**

**Heating**

The fourth icon down on the left is "sticky notes." Click on a sticky and write ideas as they are shared and discussed with the group.

## GROUP #5

Task: Discuss how CHANGING LANDSCAPES and changes to our ECOSYSTEM might impact your League, both building and programming.

**renewable  
resources,  
generate  
power using  
renewables**

**plant  
materials;  
need and  
demand for  
water; collect  
water;**

# Report Back - Climate Risks

- **Extreme Heat and Fire Smoke:** extreme heat, like fire smoke can be dangerous to people's health and safety would be top of mind. League activities may need to be suspended
- **Extreme Cold + Strong Winds:** Extreme cold can impact water pipes and affect programming if too dangerous to be outside; winds could cause blow-down of weak trees and can move any equipment that isn't secured to the ground or cause damage to shingles or siding

# Report Back - Climate Risks

- **Extreme Rain + Local Flooding:** impacts on land surrounding league if poor drainage and therefore programming delays until grounds are dry; difficult to plan for outdoor events; damage to turf and naturalization projects; roof leaks? Threat of basement or main floor flooding?
- **Extreme Weather + Power Outages:** impacts on aging infrastructure; perishables in fridges or freezers; potential for hail damage; indoor programming would also be affected
- **Changing Landscapes: Changes to our Ecosystem:** assess the sportsfields for upkeep; drought-tolerant and heat-resistant species; invasive species will tolerate milder winters

# Learning More

## [A Tiny Explanation: Climate Change Adaptation](#)

Videos and Infographic Posters on:

- Extreme Weather
- Changing precipitation
- Changing Temperatures

# Learning More

- [Climate Resilient Edmonton: Adaptation Strategy and Action Plan](https://edmonton.ca/climateresilience)  
edmonton.ca/climateresilience
- [Edmonton's Climate Change Almanac](https://edmonton.ca/climatealmanac) provides basic information about climate changes to expect and prepare for. edmonton.ca/climatealmanac
- [Climate Resilient Home](https://climateresilienthome.ca) is an interactive online guide for homeowners who wish to retrofit in anticipation of projected climate changes.  
climateresilienthome.ca

# Learning More

- [Lunchbox Series](#) sessions are recorded and posted online about a week after each session. The first one, Climate Change 101, is an overview of what climate change is and projected changes for Edmonton.  
[changeformclimate.ca/lunchboxseries](http://changeformclimate.ca/lunchboxseries)
- The [Change for Climate](#) blog has many stories related to both mitigation and adaptation. [changeformclimate.ca/stories-of-change](http://changeformclimate.ca/stories-of-change)
- [Climate Conversations Teacher's Guide](#) ( Jr-Sr High ) is a guide for educators to share information and host discussions about Edmonton's changing climate and how to adapt to it.

# Closing



- ***Outstanding Questions?***
- ***Next Sessions:***
  - **Thurs. March 4: Extreme Weather**
    - Emergency prepared and flood resilience
  - **Tues. March 9: Adapting you + your League**
- ***Evaluation, check your email!***

# Climate Resilient Edmonton: Adaptation Strategy and Action Plan

[edmonton.ca/climateresilience](http://edmonton.ca/climateresilience)

Take Action: [changeformclimate.ca](http://changeformclimate.ca)

# Share & Engage



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[twitter.com/YEGclimate](https://twitter.com/YEGclimate)



[linkedin.com/company/  
changeforclimate](https://linkedin.com/company/changeforclimate)



Session 2/3

March 4, 2021

11:30am to 1:00pm

# Adapting Community Leagues for Climate Change



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FOR CLIMATE**



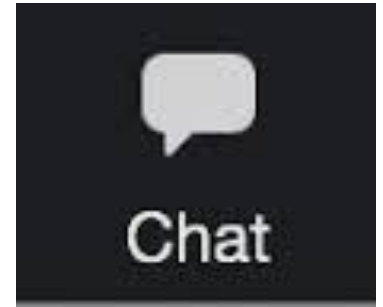
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# Introductions - Using Chat

- ***Introduce yourself:*** name, League, any outstanding questions from Tuesday
- ***Experience:*** have you been in an emergency or disaster - what? where? when?



# Participant Feedback

## EXPERIENCE IN A WEATHER-RELATED DISASTER

In 1986 I was on a greek island that was burned 2/3 and had to evacuate after being trapped for 5 days on the island

Vancouver - Major windstorm in Dec '96. Destroyed major forest areas of Stanley Park. Has taken decades to recover.

Lived and worked in Canmore during the 2013 Floods and learned of the flooding over facebook posts while I was away at a conference. Fortunate that I did not experience personal losses. Engaged in disaster psychosocial response and recovery work in Canmore 2013 and since then across the province.

# Agenda - Session #2



- 11:30** Welcome, workshop series overview
- 11:45** Session overview, questions from Tuesday
- 11:50** Flood Mitigation: Susan Ancel, EPCOR  
(presentation + Q&As)
- 12:30** Preparing for an Emergency: Adam Conway, UofA  
(presentation + Q&As)
- 12:55** Wrap-up, Upcoming Session, Evaluation
- 1:00** END

# Flood Mitigation



One Water  
Planning  
~EPCOR~

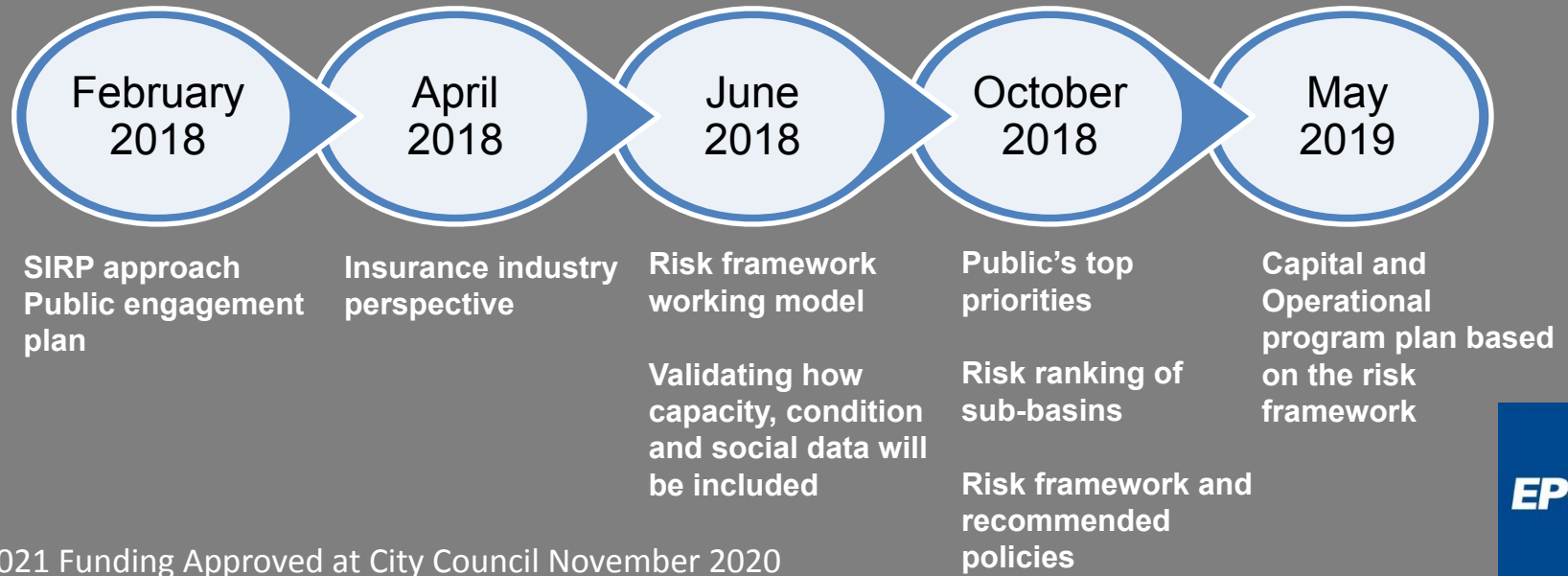
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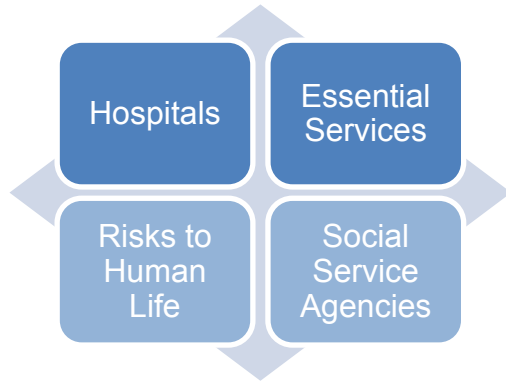
# What we've been working on

All reports and Flood Risk maps publically available

EPCOR has been reporting on the Stormwater Integrated Resource Plan (SIRP) to City Council's Utility Committee:



# Top Priorities for Edmontonians



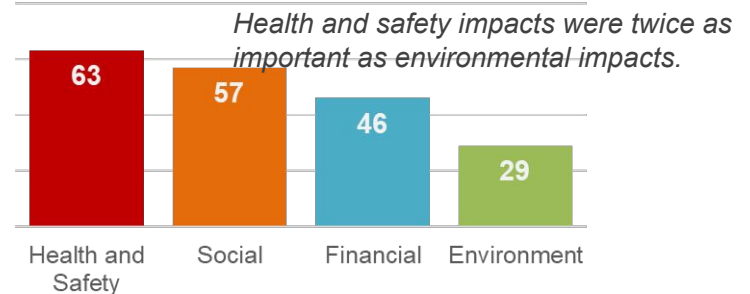
In August 2018, 1,500 Edmontonians completed a comprehensive survey about flood impacts.

For the city overall, citizens put the greatest priority on protecting against health and safety and social impacts from flooding.

Financial and environmental impacts were ranked as less important.

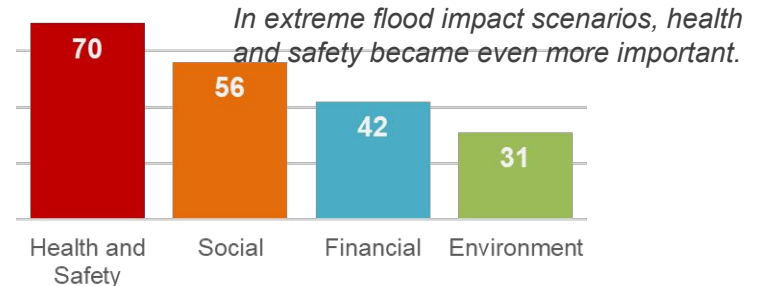
## Major Flood Impacts

Relative Importance Scores



## Extreme Flood Impacts

Relative Importance Scores



# SIRP Flood Mitigation Strategies – 5 Major Themes

## **SLOW.**

*We slow the entry of stormwater into the drainage network by absorbing it in green infrastructure and holding it in ponds, creating space in the collection system during storm events.*

- Ponds (\$470M), Low Impact Development (\$420 - 570M)

## **MOVE.**

*We move excess water safely away from areas at risk, quickly and efficiently.*

- Tunnels, Trunks and Sewer Separation (\$300M)

## **SECURE.**

*We help secure individual properties in higher risk areas against sewer backups, overland flooding and river flooding.*

- Enhanced Flood Proofing (\$60M), Outfalls and Control Gates (\$30M), Inflow and Infiltration Reduction (\$100M)



## **PREDICT.**

*We predict and manage the movement of stormwater through smart sensors and technologies that integrate into the collection system.*

- Monitoring and Controls (\$70M)

## **RESPOND.**

*We respond through the fast rollout of flood barriers, traffic diversions and public communications to protect life, safety and property.*

- Emergency Response Equipment (\$45M)

# Understanding Property Flooding

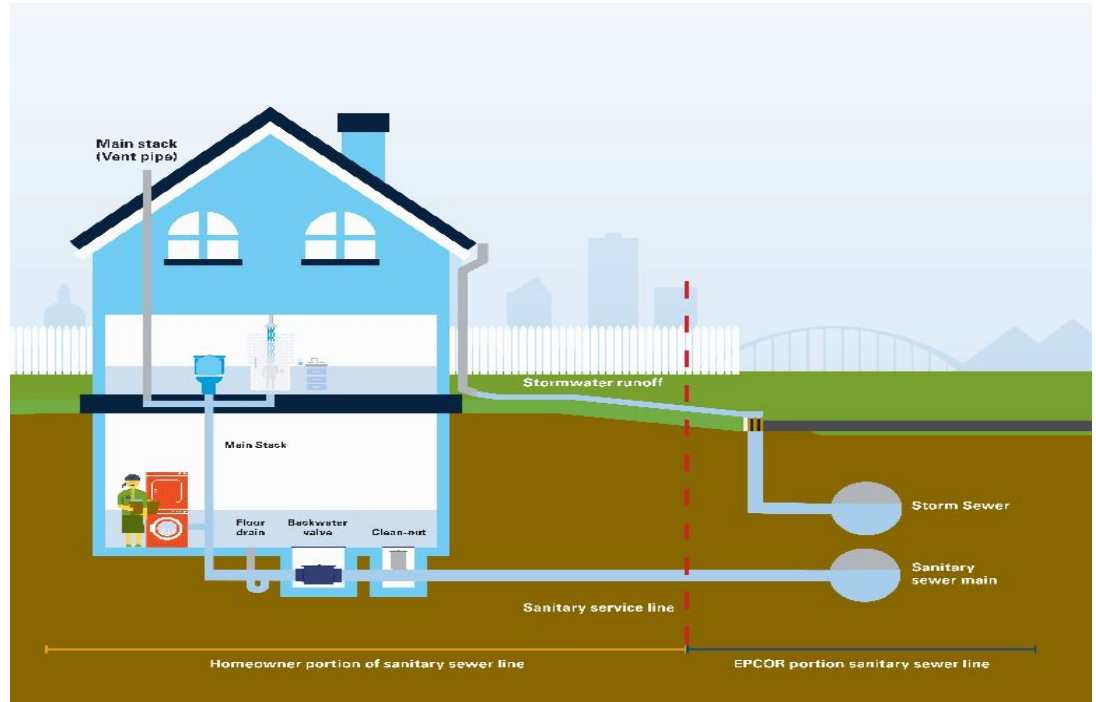
## Sanitary Sewer Backup

- Private vs. Public Assets

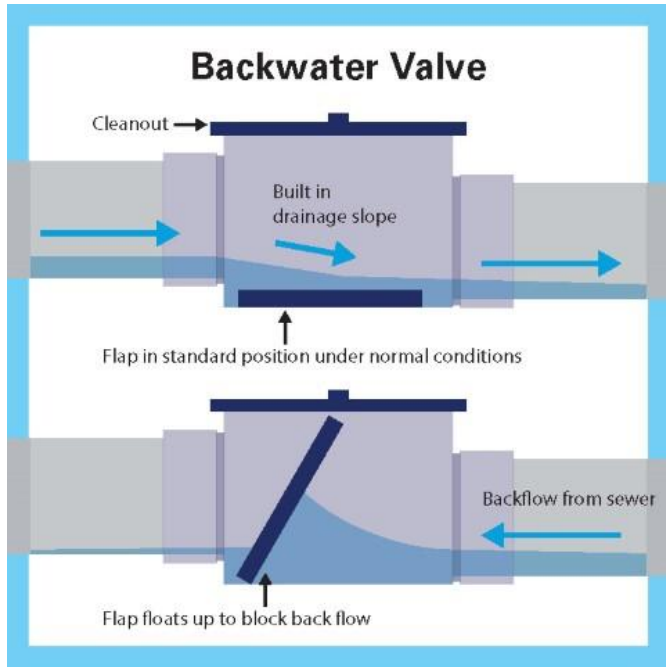
## Stormwater Flooding

- Overland Flooding
- Foundation / Window Flooding
- Private Property Flooding
- Reverse Driveway Risks

## Role of Homeowner Insurance



# EPCOR Drainage Programs



<https://www.epcor.com/products-services/drainage/flooding-flood-prevention/flood-prevention-homeowner-programs/Pages/flood-prevention-home-check-up.aspx>

## Free to Homeowners

- Flood Prevention Home Owner Education
- Backwater Valve Subsidy Program

## Services with Fees

- Service Line Scoping
- Root / Blockage Removal

# EPCOR & Community Leagues

How best to develop opportunities for us to engage with residents?

- Slow – Green Infrastructure and Dry Ponds
- Secure – Flood Proofing and Downspout disconnects
- Respond – Emergency Response Plan Development

Distribution of information at your halls or through your newsletters/websites?

How else can we support your Community Sustainability initiatives work?



# EPCOR & Community Leagues

## Links:

Reports, risk maps and public engagement

<https://www.epcor.com/products-services/drainage/flood-mitigation/Pages/default.aspx>

Flood Prevention Home Check-up:

<https://www.epcor.com/products-services/drainage/flooding-flood-prevention/flood-prevention-homeowner-programs/Pages/flood-prevention-home-check-up.aspx>

Inquiries about the Presentation:

[floodmitigation@epcor.com](mailto:floodmitigation@epcor.com)





[getprepared.ca](https://getprepared.ca)

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# Severe Weather

— “Should I stay,  
or should I go now?” —

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# Things you must have

If you can

- Food
  - Water
  - Medications & FAK
  - Soap
  - Distractions
  - Clothing
  - Contact Information
    - Out of Province.
  - Bleach
  - Garbage bags
  - Bucket
  - Flashlights
  - Radio
  - Duct Tape (aka “The Force”)
  - A Car Kit
  - Blankets
  - **Neighbours**
-

# Things you can do

If you can

- Fire-Proof
  - Flood-Proof
  - Host a block party
  - Document your neighbours' strengths and vulnerabilities
  - Gather supplies
  - Gather information
  - Pet carriers and plans
  - **INSURANCE**
-

## **Equipment Inventory:**

who in the community has a boat? a generator? a shovel?  
extra canned goods? extra water?

## **Skills Inventory:**

who in the community can drive a bus? read a map ?  
sanitize shelter spaces? cook for many people?

## **Relationships:**

who can offer comfort? sit with vulnerable people?  
provide medical first aid?

## **Ad Hoc Organization:**

who can organize assistance? show people to where they are needed?

## **Local Knowledge:**

who has a good knowledge of where the road should be, the paths out? where critical resources are located? where vulnerable persons live?

[wereready.org](http://wereready.org)

for facilitation guides

Abundant Community Edmonton (ACE)

fostering neighbour-to-neighbour relationships

**In a community emergency situation, your neighbours are the first to respond. Take time to get to know your neighbours.**

# Closing



- ***Next (final) Session:***
  - **Tuesday, March 9:** Adapting you + your League
    - Climate Change + Mental Health
    - Adaptation Action for Leagues
- ***Evaluation,*** check your email!

# Learning More



**Lunchbox Series** 

Unpacking climate change and energy into bite-sized sessions

**CHANGE FOR CLIMATE** 

The graphic features a dark blue arrow-shaped box on the left containing the text 'Lunchbox Series' and 'Unpacking climate change and energy into bite-sized sessions'. To the right, on a teal background, are several white line-art icons: a cloud with rain and lightning, a house with waves below it, a bus with a lightning bolt on its side, a bicycle, a lightbulb, and a landscape with trees and hills. At the bottom right of the teal area are the logos for 'CHANGE FOR CLIMATE' and 'Edmonton'.

[changeformclimate.ca/lunchboxseries](https://changeformclimate.ca/lunchboxseries)

# **Climate Resilient Edmonton: Adaptation Strategy and Action Plan**

[edmonton.ca/climateresilience](http://edmonton.ca/climateresilience)

**Take Action: [changeformclimate.ca](http://changeformclimate.ca)**



# Share & Engage



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Session 3/3

March 9, 2021

11:30am to 1:00pm

# Adapting Community Leagues for Climate Change



EFCL

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Edmonton

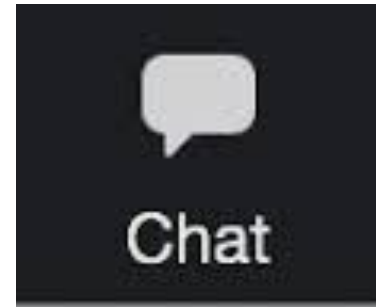
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# Introductions - Using Chat

- ***Introduce yourself:*** name, League
- ***Question:*** in the span of a week, how often do you think about climate change? How does it make you feel?



# Participant Feedback

## THINKING ABOUT CLIMATE CHANGE

I think about climate change many times daily, but more so from the point of view of innovations and technology around it.

I love thinking about how to educate youth about climate change and all the hopeful things happening surrounding it, and the opportunities they have to get involved in.

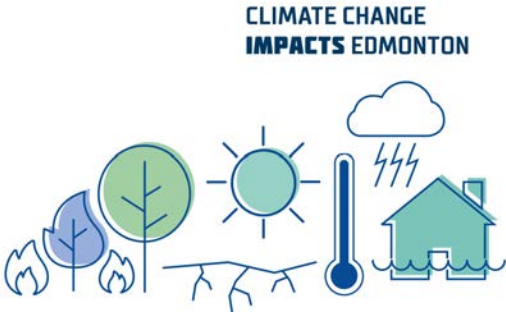


I think about CC at least 50 times/week!

# Agenda - Session #3



- 11:30** Welcome, workshop series overview
- 11:35** Recap: what we've learned & today's agenda
- 11:40** Mental Health & Climate Change: presentation from AHS
- 12:00** Municipal Efforts to Adapt to Climate Change
- 12:15** Bringing it Together: What's the Plan?  
Week 1 groups reconvene and strategize actions
- 12:55** Wrap-up, Evaluation
- 1:00** END

# Recap: Sessions 1 to 3

Session #1	Session #2	Session #3
Climate change 101	Flood Mitigation	Mental Health & CC
Climate Risks for Leagues	Prep for Emergencies	City + Regional Work
 <p>CLIMATE CHANGE IMPACTS EDMONTON</p> <p>The graphic features several icons: a tree, a sun, a cloud, a lightning bolt, a house, a thermometer, and a flame. The text 'CLIMATE CHANGE IMPACTS EDMONTON' is positioned at the top left of the graphic area.</p>	 <p>A photograph showing a large steel truss bridge over a river. The water is high, and the bridge appears to be partially submerged or surrounded by floodwaters. The background shows some buildings and trees.</p>	 <p>A photograph of a city at night, showing a large building and a street with traffic. The scene is somewhat hazy or smoggy.</p>

**AHS**

**Mental  
Health**

**Climate  
Change**

**CHANGE  
COMMUNITIES  
FOR CLIMATE**



# Our Changing Climate & Mental Health: Building Community Capacity



# 5 Essential Elements



Hobfoll et al., 2007



# 5 Essential Elements = 5 Essential Community needs

When the Five Essential elements are in place before, during and after climate hazard/disaster impacts, communities and the individuals within them recover more effectively, with greater resilience than communities in which the five essential elements were not present prior to/during these impacts.

*- International research across multiple, diverse disaster events – Hobfoll et al. 2007*

**Psychosocial preparedness + supporting mental health and wellbeing + adaptation**

**=**

**Increased community resilience**

- Physically & psychologically safer and more connected communities are better able to prepare, respond, adapt, recover and live

Coping mechanisms you use to sustain or improve your mental health (*while thinking about climate change*).

Quiet, personal reflection.

Or share thoughts in the chat.



# Mental Health

# Climate Change



# Adaptation Action

City of Edmonton - City Environmental Strategies

# ACTION PLAN (posted on [edmonton.ca/climate/resilience](https://edmonton.ca/climate/resilience))

5

PATHWAYS

11

GOALS

18

ACTIONS



## PATH 1:

Science and Evidence Based Decisions



## PATH 3:

Preparing for Changing Precipitation



## PATH 5:

Preparing for Changing Ecosystems



## PATH 2:

Preparing for Changing Temperatures



## PATH 4:

Preparing for Changing Weather Extremes

# INITIATIVES by City of Edmonton

## MAINSTREAMING

Integrating climate adaptation policy and action into existing policies and frameworks

## COMMUNITY CONNECTEDNESS

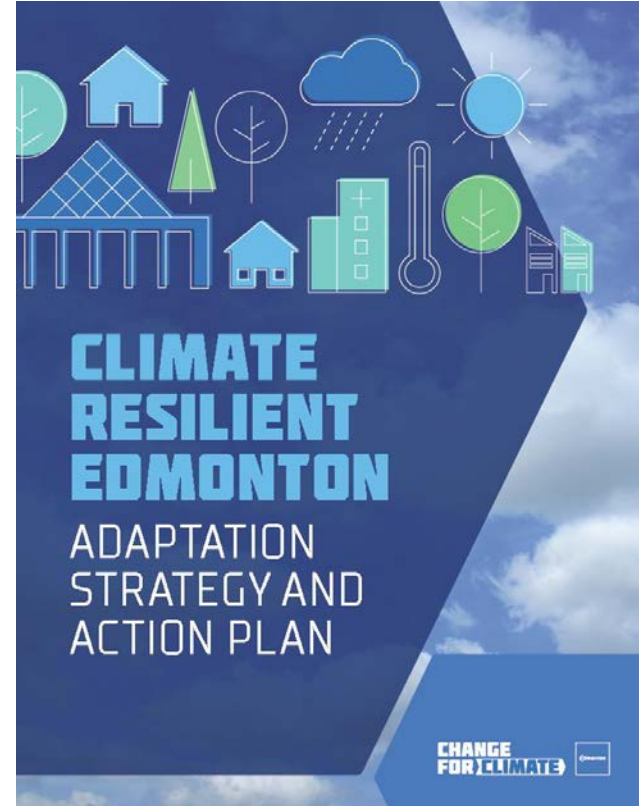
Providing the public with information to improve their understanding and encourage action

## RESEARCH

Continual updating of information and determining best paths forward based on current science and practice.

## LEARN MORE

[edmonton.ca/climateresilience](https://edmonton.ca/climateresilience)



# Adaptation Action - Group Work

In small groups, discuss what actions you will take to address these climate hazards.

- **Group 1:** Extreme Heat and Fire Smoke + *Changing Ecosystems*
- **Group 2:** Extreme Cold + Strong Winds + *Power Outages*
- **Group 3:** Extreme Rain + Local Flooding + *Extreme Weather*
- **Group 4:** Extreme Weather + Power Outages
- **Group 5:** Changing Landscapes: Changes to our Ecosystem

(collapsed 5 groups from Session #1 into 3 groups)

# Report Back - Action Plan

What are the top three actions you will take to address these climate hazards?

- **Group 1:** Extreme Heat and Fire Smoke + Changing Ecosystems
- **Group 2:** Extreme Cold + Strong Winds + Power Outages
- **Group 3:** Extreme Rain + Local Flooding + Extreme Weather

## GROUP #1 Task:

1. Recall the presentations we've heard: climate projections; flood preparation; emergency planning; mental health
2. Review the ideas discussed last week [see 'sticky notes' below] about how EXTREME HEAT, FIRE SMOKE and CHANGING ECOSYSTEMS might impact your League (building, grounds, programming).
3. What are some adaptation actions you might suggest for your League to address extreme heat in summer; fire smoke; and changing ecosystems?

## IMPACTS (from Week #1)

changes in water in the area - potential impacts on algae growth, smell etc

Question of how flammable older playground equipment would be (wood)

impact on local wildlife - birds and animals

Limits to programming- especially sports. Move programming indoors.

Air filters. strain on air conditioning, increased utility. Strain on the power grid.

Extreme heat = increased risk of fire.

plant materials; need and demand for water; collect water;

Extreme heat damages soccer turf.

Shortened hockey season with longer warm season. (Outdoor rinks)

**Risk of grass fires**

food forest / community garden

renewable resources, generate power using renewables

## GROUP #1 Task

What adaptation actions would you suggest for your League to address extreme heat in summer, fire smoke and changing ecosystems?

After you brainstorm, decide on your top three actions!

**impact on roads  
(extreme heat -  
buckling), knowing  
alternate evacuation  
routes**

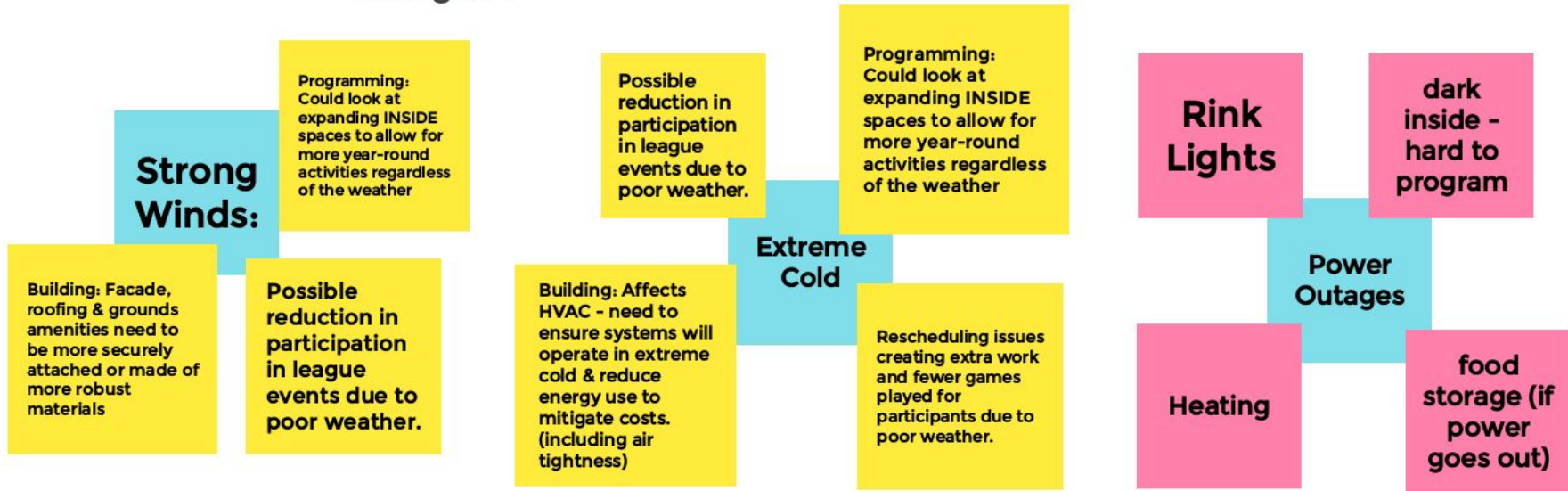
**evacuation/preparedness  
planning across  
neighborhoods/leagues  
(inter-league  
communication and  
planning) - Begin  
reaching out to start  
these conversations**

**Cooling  
stations for  
the  
community**

**air filters, cooling  
systems in buildings  
- include in  
maintenance plan**

## Group #2 Task

1. Recall the presentations we've heard: climate projections; flood preparation; emergency planning; mental health
2. Review the ideas discussed last week [see 'sticky notes' below] about how EXTREME COLD, STRONG WINDS and POWER OUTAGES might impact your League (building, grounds, programming).
3. What are some adaptation actions you might suggest for your League to address extreme cold in winter; strong winds; and power outages?



## GROUP #2 Task

What adaptation actions would you suggest for your League to address extreme cold in winter, strong winds and power outages?

After you brainstorm, decide on your top three actions!



## Group #3 Task

1. Recall the presentations we've heard: climate projections; flood preparation; emergency planning; mental health
2. Review the ideas discussed last week [see 'sticky notes' below] about how EXTREME WEATHER (e.g., hail), EXTREME RAIN and LOCAL FLOODING might impact your League (building, grounds, programming).
3. What are some adaptation actions you might suggest for your League to address extreme cold in winter; strong winds; and power outages?

League building issues -- poor, old foundations; degrading, unsafe/unhealthy structures that aren't built/maintained to withstand current weather needs;

capital projects to regrade land surrounding halls or to upgrade halls are high/prohibitive

Damage to league outdoor land - turf maintenance. rink maintenance

Extreme rain and flooding events can also lead to physical health problems in league halls -- risks of mold/mildew

significant planning ahead.  
Supplying/renting large outdoor tents adds additional cost. Many leagues don't have halls, so they rely on summer outdoor space. Halls are often not big enough to host large events,

another reason outdoor spaces are valuable

Diversion of community energy + time + resources + money away from community activities.

Funding from programs to fix infrastructure

Damage to solar panels from hail

flooding

Aged infrastructure (ie old roof may not withstand high rain events)

## GROUP #3 Task

What adaptation actions would you suggest for your League to address extreme weather (e.g., hail); extreme rain and local flooding?

After you brainstorm, decide on your top three actions!

**Ice rinks: Struggle to keep ice usable during milder winters, shorter season. redirect the heat accumulating on outdoor rinks to heat the league building using geothermal, this helps keep the ice cool.**

**Company in Calgary that makes solar-powered rink flooding systems right next to the rink.**

community gardens -- access to water issues, water retention infrastructure updates, hail protection, wind/evapotranspiration protection.

**Challenge to keep beds from drying out but to also have access to lots of sunlight!**

**Flood mitigation: Dry ponds in communities. Bioswales. Tree cells. Rain gardens. Increased surface permeability in our urban environments. Education to residents to understand the value of some of these**

**infrastructure changes (their purpose is kind of invisible)**

**leagues can proactively help residents get flood inspections from EPCOR**

**Extreme weather: Leagues need to be mindful of building materials used -- siding (hail-resistant, fire-resistant), windows (hail-resistant). Leagues could host workshops and info sessions to encourage**

**residents to create emergency plans and make emergency kits. Leagues can also consider how they could be ready with services to help in a disaster (at their hall, for eg.)**

# Top Three Actions

## Group 1

evacuation/preparedness planning across neighborhoods/leagues (inter-league communication and planning) - Begin reaching out to start these conversations

Cooling stations for the community

air filters, cooling systems in buildings - include in maintenance plan

## Group 2

Create and maintain an emergency kit at the hall

Have an Emergency Action Plan for outdoor events

Regularly inspect the hall and property with extreme events in mind (and then maintain infrastructure)

1. interconnectedness between communities - rely on each other

## Group 3

Weather resistant building materials for structures (ex. hardie board for siding)

Install infrastructure (ex. underground storage) to capture and store rainwater at community gardens in a way to provide surge protection.

Increase permeable surfaces. Permeable pavement for parking lots and rink surfaces.

# Report Back - Adaptation Action

- **Extreme Heat**
  - Know alternate evacuation routes (roads can buckle in heat)
  - Create cooling stations for the community
  - Upgrade or install cooling systems in buildings
  - Improve insulation
  - Awnings, shade structures and trees
  - Potable water available for those who need
- **Fire Smoke**
  - Emergency preparedness across neighbourhood and Leagues
  - Begin the conversations now (be prepared, don't react)
  - Seal doors and windows to maintain good air quality indoors
  - Prepare to cancel outdoor activities to protect health

# Report Back - Adaptation Action

## ○ Changing Ecosystems

- Landscape with drought-tolerant species
- Collect rainwater for outdoor watering purposes
- Consider xeriscaping
- Create natural shade areas where other plants may flourish
- Be aware of fire risk
- Access to water issues for community gardens
- Install water retention infrastructure
- Prevent gardens from drying out, protect from wind, but still provide access to sunlight

# Report Back - Adaptation Action

## ○ Extreme Cold

- Check hall frequently to make sure equipment is all running (furnace, pipes, etc)
- Insulate well
- Plan for an alternate source of heat, if possible (candles not recommended due to fire hazard)

# Report Back - Adaptation Action

## ○ Strong Winds

- Secure outdoor equipment; place in sheltered spot
- Have an Emergency Action Plan for outdoor events
- Remove or limb any old, weak trees or structures that could blow down (hire a professional)
- Ensure shingles and siding are secure

## ○ Power Outages

- Have a plan for food in fridge/freezer, or do not leave food there
- Keep flashlights and batteries in a known location
- Ensure batteries are fully charged

# Report Back - Adaptation Action

## ○ Extreme Rain

- Ensure sump pumps and backwater valves are in working order
- Maintain green spaces and natural flow of water to marshy areas
- Check for roof leaks, window and doorway seals
- Rainbarrel overflow hoses direct water away from foundation

## ○ Local Flooding

- Proactively help residents to get flood inspections from EPCOR
- Dry ponds; bioswales; tree cells; rain gardens; Low Impact Development (LID); green roofs
- Increase permeability of hard surfaces
- Educate residents to understand the purpose of various infrastructure efforts

# Report Back - Adaptation Action

## ○ Extreme Weather

- Inspect building materials and windows - are they fire and hail resistant?
- Have an *Emergency Action Plan* for outdoor events
- Remove / limb any older, weak trees or structures that could blow down (hire a professional)
- Ensure shingles and siding are secure
- Warming in winter: issue for ice rinks and outdoor activities; plan for alternates
- Solar-powered rink flooding systems (Calgary company)
- Be prepared; eyes on skies and ears on radio/smart phones

# Report Back - Climate Risks

## ○ Be Prepared

- Review insurance for coverage
- Host workshops with residents to provide information
- Create emergency plans and
- Make emergency kits with residents
- Host community discussions: should the League Hall be equipped as an emergency shelter, or as a place to receive and share information?

# Funding



- Check with EFCL to access community grants
- [Community League Infrastructure Program \(CLIP\)](#) City of Edmonton - March 31, 2021
- [Community League Operating Grant \(CLOG\)](#) City of Edmonton - April 28, 2021

# Funding



- [Sustainable Food Edmonton](#) (SFE) Community Garden Grants
  - two annual intakes for garden grants (February and May)
  - February 28 and May 31, 2021

# Funding



- Community Facility Enhancement Program (CFEP) Government of Alberta - May 15, 2021
- [albertaecotrust.com/cif-grant-program/](http://albertaecotrust.com/cif-grant-program/) (*for climate mitigation: actions that reduce GHGs*)  
Information webinars in May & June 2021

# Closing



- *Outstanding Questions?*
- *Email [michael.barnard@efcl.org](mailto:michael.barnard@efcl.org)*
- *Email [changeformclimate@edmonton.ca](mailto:changeformclimate@edmonton.ca)*

# Climate Resilient Edmonton: Adaptation Strategy and Action Plan

[edmonton.ca/climateresilience](http://edmonton.ca/climateresilience)

Take Action: [changeformclimate.ca](http://changeformclimate.ca)

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