MUNICIPALITY OF JASPER

REGULAR COUNCIL MEETING AGENDA

August 27, 2024 | 9:30am

Municipality of Jasper Strategic Priorities 2022-2026

Notice: Due to the wildfire and ongoing recovery, this meeting will be conducted electronically. Members of the public can view meetings through the Zoom livestream; or view archived Council meetings on YouTube at any time. **To live-stream this meeting starting at 9:30am, use this Zoom link: https://us02web.zoom.us/j/87657457538**

1 CALL TO ORDER

2 APPROVAL OF AGENDA

2.1 Regular meeting agenda, August 27, 2024 attachment

Recommendation: That Council approve the agenda for the regular meeting of August 27, 2024 as presented.

3 APPROVAL OF MINUTES

3.1 Regular meeting minutes, August 20, 2024 attachment

Recommendation: That Council approve the minutes of the August 20, 2024 Regular Council meeting as presented.

4 CORRESPONDENCE

4.1 Mayor of Hakone; Insurance Bureau of Canada; Smoky Lake County attachment

Recommendation: That Council receive the correspondence for information.

5 NEW BUSINESS

5.1 Insurance Bureau of Canada – Rob De Pruis attachment

Recommendation: That Council receive the presentation for information.

5.2 Joint Recovery Coordination Centre Update – Director of Recovery Michael Fark verbal

Recommendation: That Council receive the update for information.

5.3 Fire Department Staffing Requests attachment

Recommendation: That Council approve the establishment of a Captain position in the Fire Department; and

That Council approve the hiring of 10 contract Firefighters for a six-month term, to be extended as needed.

5.4 Climate Change Adaptation Action Plan Development Update attachment

Recommendation: That Council direct Administration to proceed with developing a five-year Climate Change Adaptation Action Plan with internal resources and present the plan at a future Committee of the Whole Meeting in spring 2025.

MUNICIPALITY OF JASPER

REGULAR COUNCIL MEETING AGENDA

August 27, 2024 | 9:30am

Municipality of Jasper Strategic Priorities 2022-2026

6 NOTICES OF MOTION

7 MOTION ACTION LIST

attachment

8 COUNCILLOR REPORTS

8.1 Council's appointments to boards and committees

9 UPCOMING EVENTS

AB Munis 2024 Conference & Tradeshow – September 25-27, Westerner Park, Red Deer

10 IN CAMERA

10.1 Intergovernmental Relations FOIP s. 21, 22, 23, 24

11 ADJOURNMENT

Recommendation: That, there being no further business, the regular meeting of August 27, 2024 be adjourned at _____.

Please note: All regular and committee meetings of Council are video recorded and archived on YouTube.

Municipality of Jasper

Regular Council Meeting Minutes

Tuesday, August 20, 2024 | 9:30 am

Virtual viewing and participation	Due to the Jasper Wildfire Complex and subsequent evacuation this meeting was conducted virtually and available for public livestreaming through Zoom. All meeting attendees participated or observed by electronic means.
Present	Mayor Richard Ireland, Deputy Mayor Helen Kelleher-Empey, Councillors Kathleen Waxer, Ralph Melnyk, Scott Wilson, Wendy Hall and Rico Damota.
Absent	none
Also present	Bill Given, Chief Administrative Officer Beth Sanders, Director of Urban Design & Standards Bernd Manz, Interim Director of Operations & Utilities Michael Fark, Director of Recovery Emma Acorn, Legislative Services Coordinator Vaughn Bend, Doug Renwick & Tamara Wuttunee-Campbell, Aquatera Peter Shokeir, The Fitzhugh 27 observers
Call to order	Mayor Ireland called the August 20, 2024 Regular Council meeting to order at 9:34am and began with a moment of silence to honor Morgan Kitchen, the Calgary firefighter who died in service to the community of Jasper while battling the Jasper Wildfire Complex.
Additions or deletions to agenda	none
Approval of agenda #343/24	MOTION by Councillor Melnyk – BE IT RESOLVED that Council approve the agenda for the August 20, 2024 Regular Council meeting as presented. FOR 7 Councillors / AGAINST 0 Councillors / CARRIED
Approval of Regular minutes #344/24	MOTION by Councillor Kelleher-Empey – BE IT RESOLVED that Council approve the minutes of the July 16, 2024 Regular Council meeting as presented. FOR 7 Councillors / AGAINST 0 Councillors / CARRIED
Approval of Special meeting minutes #345/24	MOTION by Councillor Hall – BE IT RESOLVED that Council approve the minutes of the August 13, 2024 Special meeting as presented. FOR 7 Councillors / AGAINST 0 Councillors / CARRIED
Correspondence	Council received correspondence from the Consulate General of Japan in Calgary; Town of Ponoka; City of Medicine Hat; City of Grande Prairie; and District of Chetwynd all expressing concern for Jasper following the beginning of the wildfire.
#346/24	MOTION by Councillor Damota – BE IT RESOLVED that Council receive the correspondence for information. FOR 7 Councillors / AGAINST 0 Councillors / CARRIED
Aquatera Annual Update	Council received the annual update from Aquatera representatives Vaughn Bend, Doug Renwick, and Tamara Wuttunee-Campbell highlighting Jasper performance results; past and upcoming capital projects; asset maintenance; operational improvements; environmental performance; and Aquatera's response to the Jasper Wildfire Complex. The professionalism and support from Utilities Manager Vidal Michaud was acknowledged and highly appreciated; as was the exemplary

actions of the operators of the facility during the emergency.

#347/24 MOTION by Councillor Kelleher-Empey – BE IT RESOLVED that Council receive the presentation for information.

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

Temporary Relaxation of RV Parking Regulations

Council received recommendations and alternatives from Administration to provide flexibility to residents as they re-enter Jasper and begin the community's recovery.

#348/24 MOTION by Councillor Waxer – BE IT RESOLVED that Council approve the temporary relaxation of RV parking regulations from August 16, 2024, to September 15, 2024, as proposed.

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

Planner and Administration Assistant Positions

Council received a report from Administration, prepared by the newly appointed Director of Urban Design & Standards Beth Sanders.

#349/24 MOTION by Councillor Wilson – BE IT RESOLVED that Council approve the establishment of the following positions to support the recovery and rebuilding efforts for the municipality:

- Four (4) full-time planner positions; and
- One (1) administrative assistant position.

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

Motion Action List #350/24

MOTION by Councillor Waxer – BE IT RESOLVED that Council approve the updated Motion Action List as presented; and

That Council direct Administration to continue updating the Motion Action List and forward to Council on a bi-weekly basis until the resumption of Committee of the Whole meetings.

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

Recess

Mayor Ireland called a recess from 11:00am to 11:05am.

Council Remuneration Review Committee #351/24

MOTION by Councillor Wilson – BE IT RESOLVED that Council rescind motion #332/24 that Council approve the Council Remuneration Review Committee Terms of Reference as presented; and

That Council direct Administration to conduct a review of council remuneration and present recommendations at a future meeting.

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

Notices of Motion

none

Councillor Reports

Councillor Damota shared his thanks to the reception centres which received Jasper evacuees and the City of Edmonton.

Councillor Hall shared her thanks to the Mayor and Administration in Valemount and all the residents who welcomed Jasper evacuees.

Councillor Kelleher-Empey echoed Councillor Hall's thanks to Valemount and added in the Towns of Edson and Hinton for all of their assistance, especially for

the seniors. She also thanked Sue and Kevin Henderson at the Jasper Legion for everything they continue to do for residents and the welcome back.

Councillor Waxer shared her thanks to the Jasper Community Team Society (JCTS) for all of their continuing work, the Province of Alberta for the grant provided for the JCTS, and to the City of Charlottetown for their support.

Mayor Ireland acknowledged there is no end to the people to thank but wanted to mention the Grande Prairie and Calgary reception centres, the Province of Alberta, Parks Canada, the Jasper Volunteer Fire Brigade, and all of the fire fighters that came from around the world to offer their help. The family of Morgan Kitchen, made the ultimate sacrifice.

Upcoming events

Council received a list of upcoming events for information.

Move In-camera #352/24

MOTION by Councillor Damota to move in-camera at 11:33am to discuss agenda item:

- 9.1 Land Use Planning Discussions Update FOIP s. 21

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

Mr. Given, Ms. Sanders and Ms. Acorn also attended the in-camera session.

Move out of camera #353/24

MOTION by Councillor Waxer to move out of camera at 12:43pm.

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

Adjournment #354/24

MOTION by Councillor Kelleher-Empey – BE IT RESOLVED that, there being no further business, the Regular Council meeting of August 20, 2024 be adjourned at 12:44pm.

FOR	AGAINST	
7 Councillors	0 Councillors	CARRIED

_____
Mayor

_____
Chief Administrative Officer

AGENDA ITEM 4.1

August ,2024

Dear Richard Ireland
Mayor of Jasper

I am writing to express my deepest sympathy for the damage caused by the recent wildfire in Jasper. I am truly saddened to hear about this unfortunate situation and I also heard that you lost your home from Emma. I hope you and Jasper's residents are safe and unharmed.

I can only imagine how difficult this must be for Jasper, and it is frustrating not being able to do more. Please know that our thoughts and prayers are with you during this difficult time. We understand how crucial it is to residents' lives as quickly as possible and we are here to help in any way we can.

If there is anything we can do to assist you during this time, please do not hesitate to contact us. We are committed to doing everything we can to support people in Jasper.

Once again, I extend my deepest sympathy and offer my heartfelt prayers for the safety of everyone in Jasper.

Most sincerely yours,

Hiroyuki Katsumata
Mayor of Hakone

勝俣浩行

AGENDA ITEM 4.1

IBC · BAC
Insurance Bureau of Canada
Bureau d'assurance du Canada

416.362.2031
777 Bay Street, Suite 1900
P.O. Box 121, Toronto, ON M5G 2C8

August 19, 2024

Richard Ireland
Mayor
Municipality of Jasper

Sent via email: rireland@jasper-alberta.ca

Dear Mayor Ireland

On behalf of Canada's Property and Casualty Insurers, I want to thank you for your leadership and express our condolences for the loss of your property and the impacts of the recent wildfire on your community. Insurance Bureau of Canada, as the trade association for home, business and automobile insurers, coordinates our industry response after natural disasters. We have been embedded in the Incident Command Centre in Hinton and are actively coordinating white goods and debris removal and the entry of insurance adjusters into the town site.

In our recent experience, we have found that recovery is expedited if decision-making is clarified early in the process and, in our view, that decision-making should vest in local authorities. As a result, in my recent meetings with Premier Smith and Minister Guilbeault, I have emphasized that each should support your leadership during the recovery period.

I know it is a very busy time for you. Should you have time and at your convenience, I'd like to have a quick introductory call. I will also be readily accessible in the weeks ahead to assist you in coordinating the recovery of Jasper.

Sincerely,

Celyeste Power
President & CEO
Insurance Bureau of Canada

AGENDA ITEM 4.1

Smoky Lake County

P.O. Box 310
4612 McDougall Drive
Smoky Lake, Alberta T0A 3C0

Phone: 780-656-3730
1-888-656-3730
Fax: 780-656-3768
www.smokylakecounty.ab.ca

August 21, 2024
File: 7-14

Sent via email: info@jasper-alberta.ca

Municipality of Jasper
Mayor and Council
P.O. Box 520
Jasper, Alberta, T0E 1E0

Dear Mayor Ireland and Council,

So many of us are emotionally affected by the devastation depicted in the photos and videos of the horrible disaster you are experiencing. Your community of Jasper holds a special place in our hearts as we reminisce about school ski trips, camping, gondola rides, hiking, touring, and shopping for the perfect Jasper keepsake.

As a municipality, we have heartfelt appreciation for all the first responders as well as everyone behind the scenes who carried on in the darkest hours to help save what could be saved and evacuate people safely. From our Council to yours, we recognize your resilience and the tough decisions you have had to make under extreme amounts of stress.

We stand in solidarity with all Albertans, as one, in support of the Municipality of Jasper. As such, Smoky Lake County has donated $250 to the Jasper Community Teams Society, as a gesture to aid in the recovery of your community. Please know that we are all thinking about you and your community, and we are sending compassion and hope for recovery.

Sincerely,

Jered Serben,
Reeve
jserben@smokylakecounty.ab.ca

IBC
Insurance Bureau of Canada

Jasper Wildfire Complex and Insurance

Jasper Council Meeting

August 27, 2024 | **Rob de Pruis**, National Director, Consumer & Industry Relations

Agenda

1. Who is IBC
2. The Canadian Property & Casualty Insurance Industry
3. Insurance Response to Jasper Wildfire Complex
4. Severe Weather Trends
5. Residential and Commercial Property Insurance
6. IBC’s Consumer Information Centre

Who Is IBC?

IBC is the national industry association representing the vast majority of Canada's home, car and business insurance companies.

We rely on the collective expertise of our members and leadership team to create policy positions, advocate for a competitive and sustainable market and influence meaningful change in the insurance industry.

The Canadian Property & Casualty Insurance Industry

The Insurance Industry

Insurance Brokers and Agents (Insurance Representatives)

Sell insurance policies and provide coverage advice to consumers. A broker sells insurance on behalf on multiple companies, an agent sells on behalf of one company. Insurance can also be purchased online.

Insurance Companies (Insurers)

Underwrite the business and pays claims to policyholders following a vehicle collision or loss or damage to a home or business.

Insurance Bureau of Canada (IBC)

Non-profit industry liaison; trusted voice of risk and insurance; providing unique, data-driven insights to educate, elevate and connect consumers, industry professionals, public policymakers, and media.

Canada’s Property & Casualty (P&C) industry at a glance

Almost **200 private P&C insurers** actively compete in Canada; **+140 in Alberta**

The P&C insurance industry employs about **145,000 Canadians; 17,000 in Alberta**
For every 100 P&C jobs, a further 105 jobs were generated

$39 billion held in federal, provincial, municipal, public authority and school bonds in 2022

Canadian insurers contribute more than **$12 billion annually** in taxes and levies to government treasuries across Canada in 2021; **$680 million in Alberta**

Canadian P&C insurers paid out about **$42 billion** in claims in 2022; **$6.3 billion in Alberta**

Source: 2023 Facts of the Property and Casualty Insurance Industry in Canada

Insurance Response to Jasper Wildfire Complex

IBC's role in assisting recovery – Second Responders

- IBC's role is to help co-ordinate the insurance industry and be the one window for officials into insurance activities
- IBC has been embedded in the Incident Command Centre since July 25, 2024
- Established IBC's Community Assistance Mobile Pavilion at Jasper's Re-entry Support Centre, and coordinated with 15 insurance providers
- Participated in all 4 Alberta government telephone town halls, answering general insurance questions

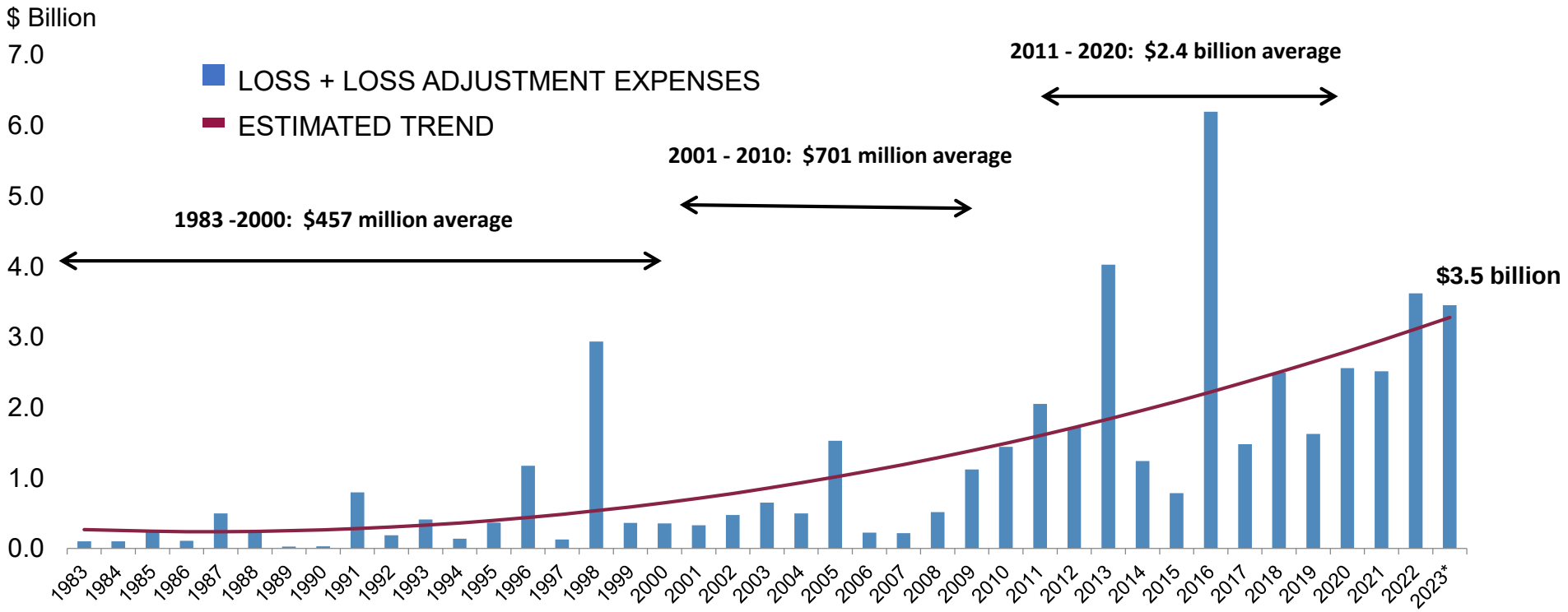
IBC's role in assisting recovery – Second Responders

- The insurance industry developed **a coordinated appliance collection and disposal program** as well as a **coordinated residential debris removal program**
- Insurers hired a cost consultant and project manager: Ellis Don, who is soliciting local contractors to partner with
- The coordinated appliance pick up and disposal program is for all residents of Jasper (insured and uninsured) paid for by insurers with support from Canadian Red Cross
- The coordinated residential debris removal program ensures an expedited, efficient and effective process, respecting municipal, provincial and federal authorities

Severe Weather Trends

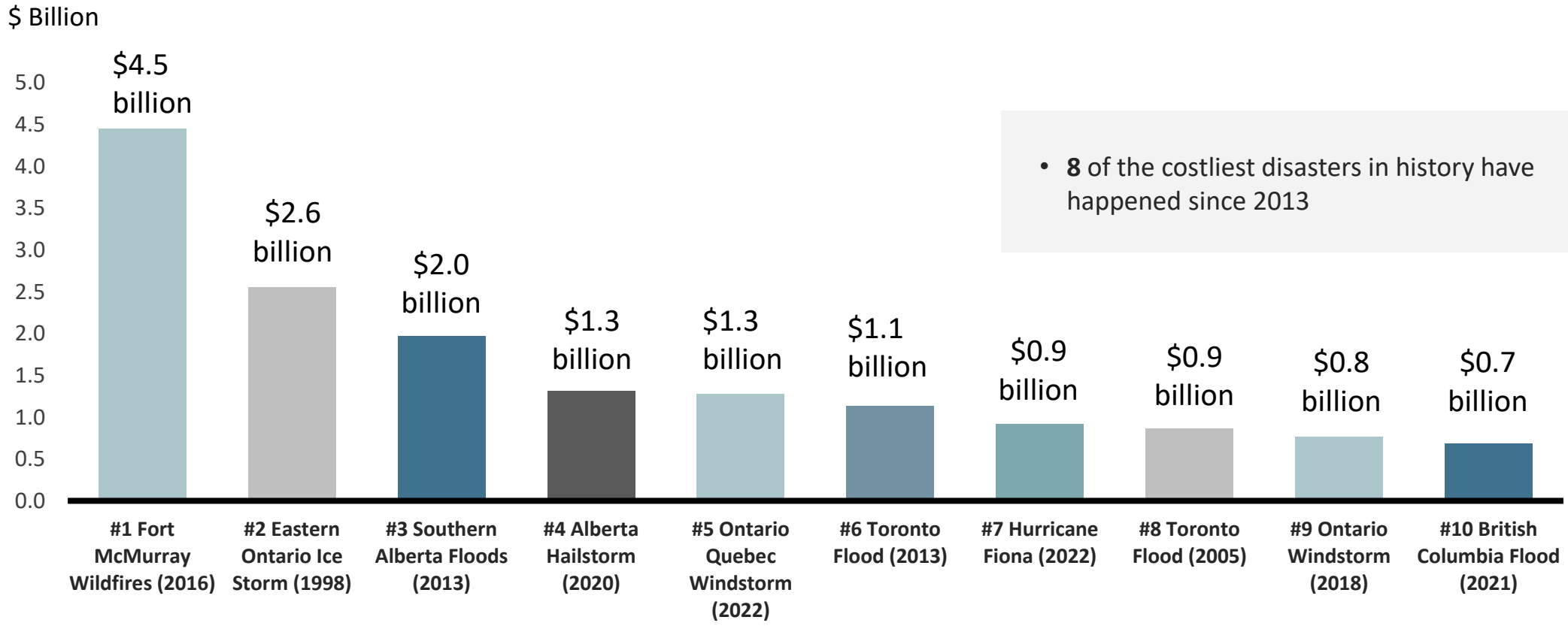
Insured Catastrophic Losses in Canada

*A catastrophic loss = 1 event costing $30 (25 prior to March 2022) million or more in insured damages



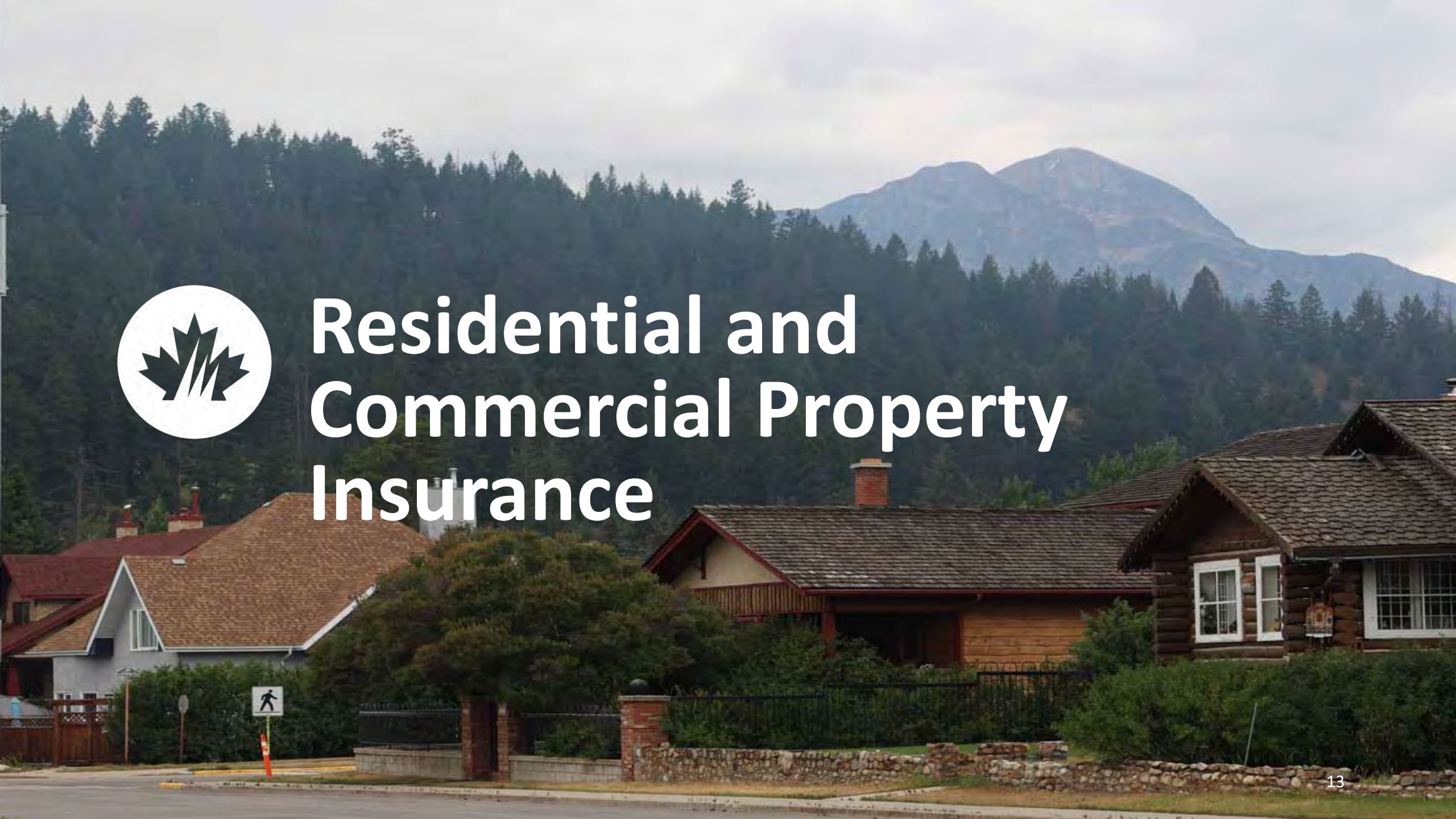
Source: IBC Facts Book, PCS, CatIQ, Swiss Re, Munich Re & Deloitte
*Values in 2023$ CAN, *2023 preliminary*

Canada: Top 10 Natural Disasters for Insurance Payouts



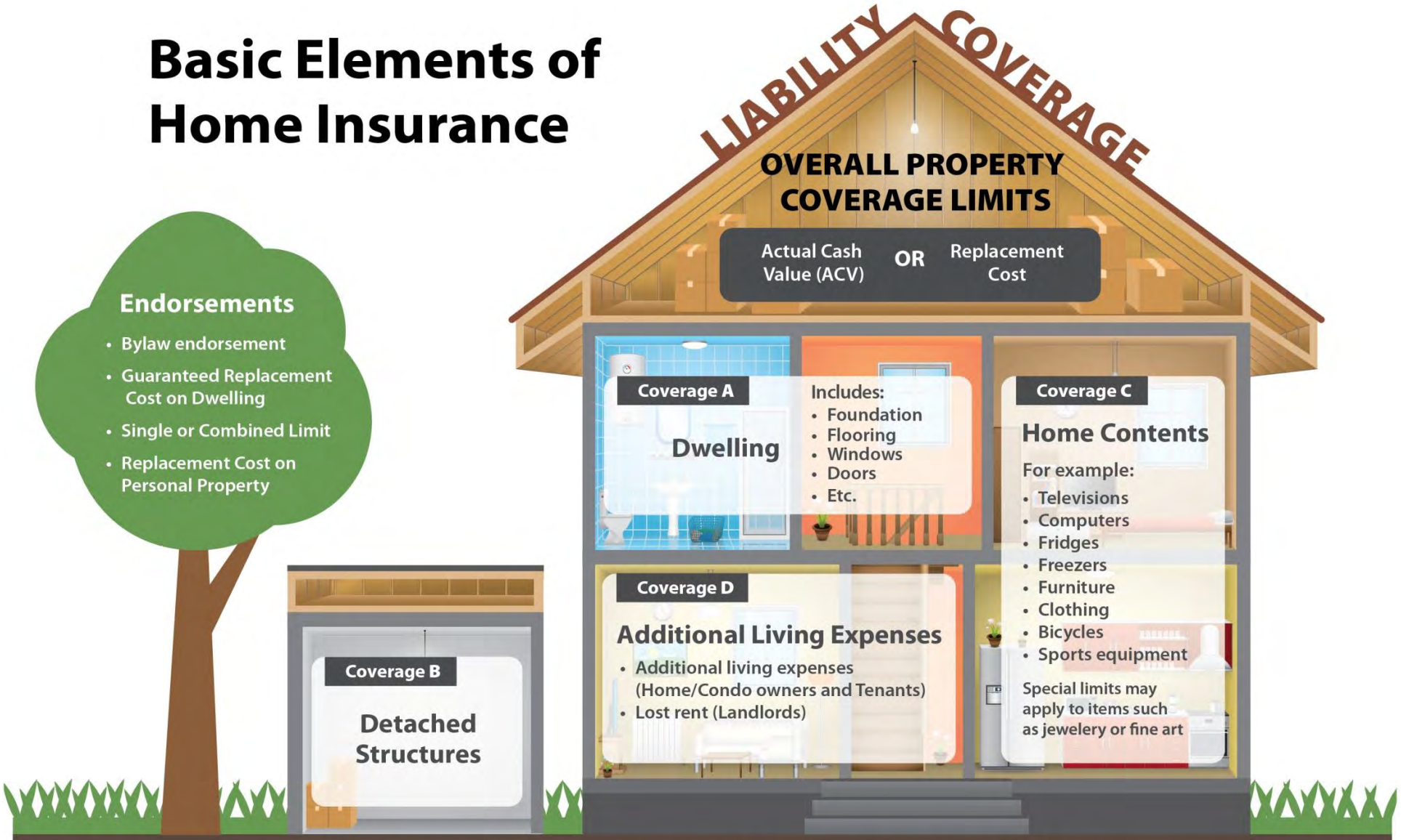
- **8** of the costliest disasters in history have happened since 2013

Losses exclude Loss Adjustment Expenses
Source: IBC Facts Book, PCS, CatIQ, Swiss Re, Munich Re & Deloitte
Values in 2023 $ CAN



Residential and Commercial Property Insurance

Basic Elements of Home Insurance



Home insurance provides coverage for rebuilding on the same site, up to your policy's limit.
You can rebuild elsewhere, but the coverage would be limited to the depreciated value of your home.

A typical home insurance policy DOES NOT cover:

- property taxes
- condo fees
- mortgage payments
- the land

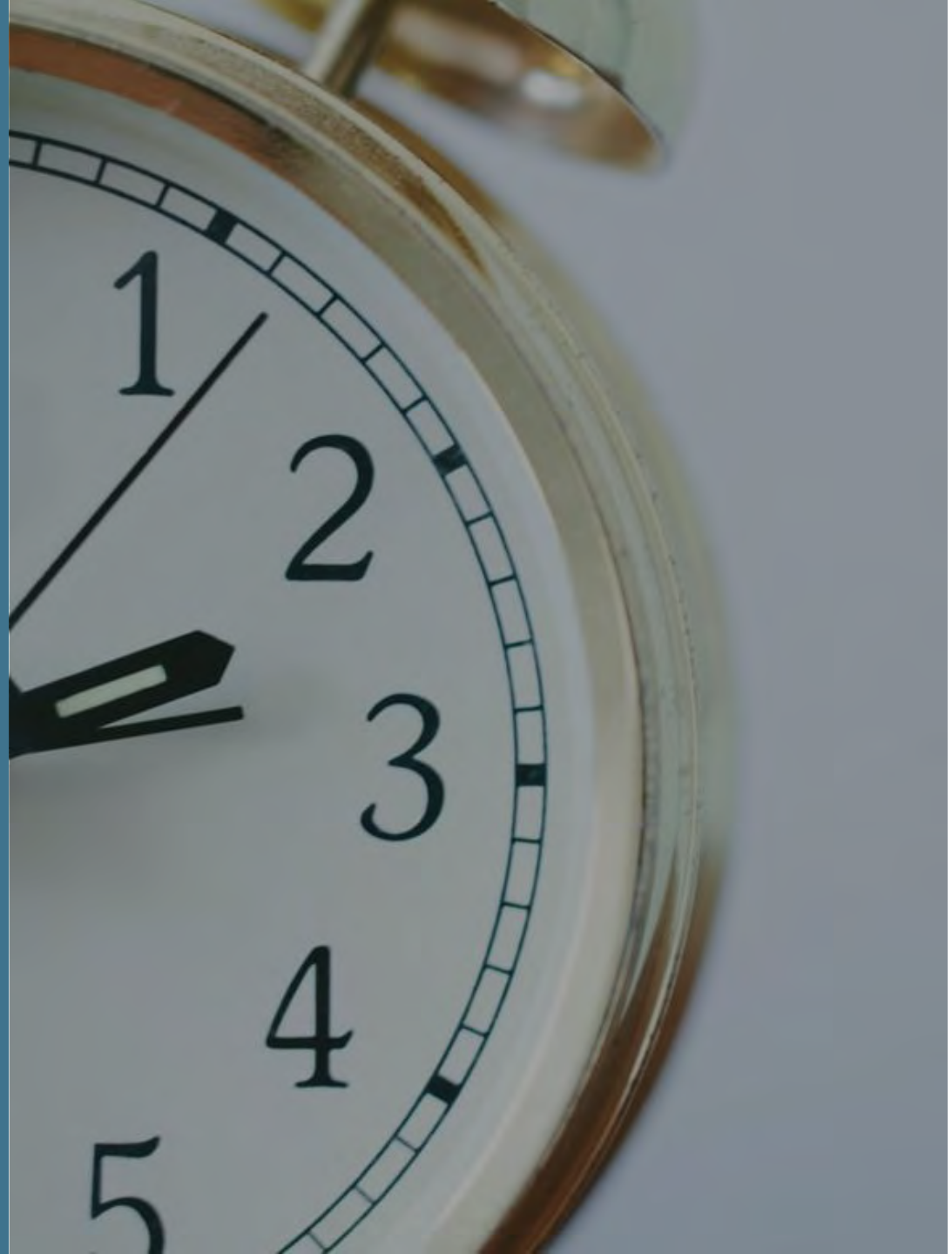
BASIC ELEMENTS OF COMMERCIAL INSURANCE

COVERAGE

1. BUILDING INSURANCE
2. CRIME INSURANCE
3. BUSINESS INTERRUPTION INSURANCE
4. CONTENTS INSURANCE
5. EQUIPMENT INSURANCE
6. LIABILITY INSURANCE COVERAGE
7. OPTIONAL EARTHQUAKE INSURANCE
8. OPTIONAL FLOOD INSURANCE

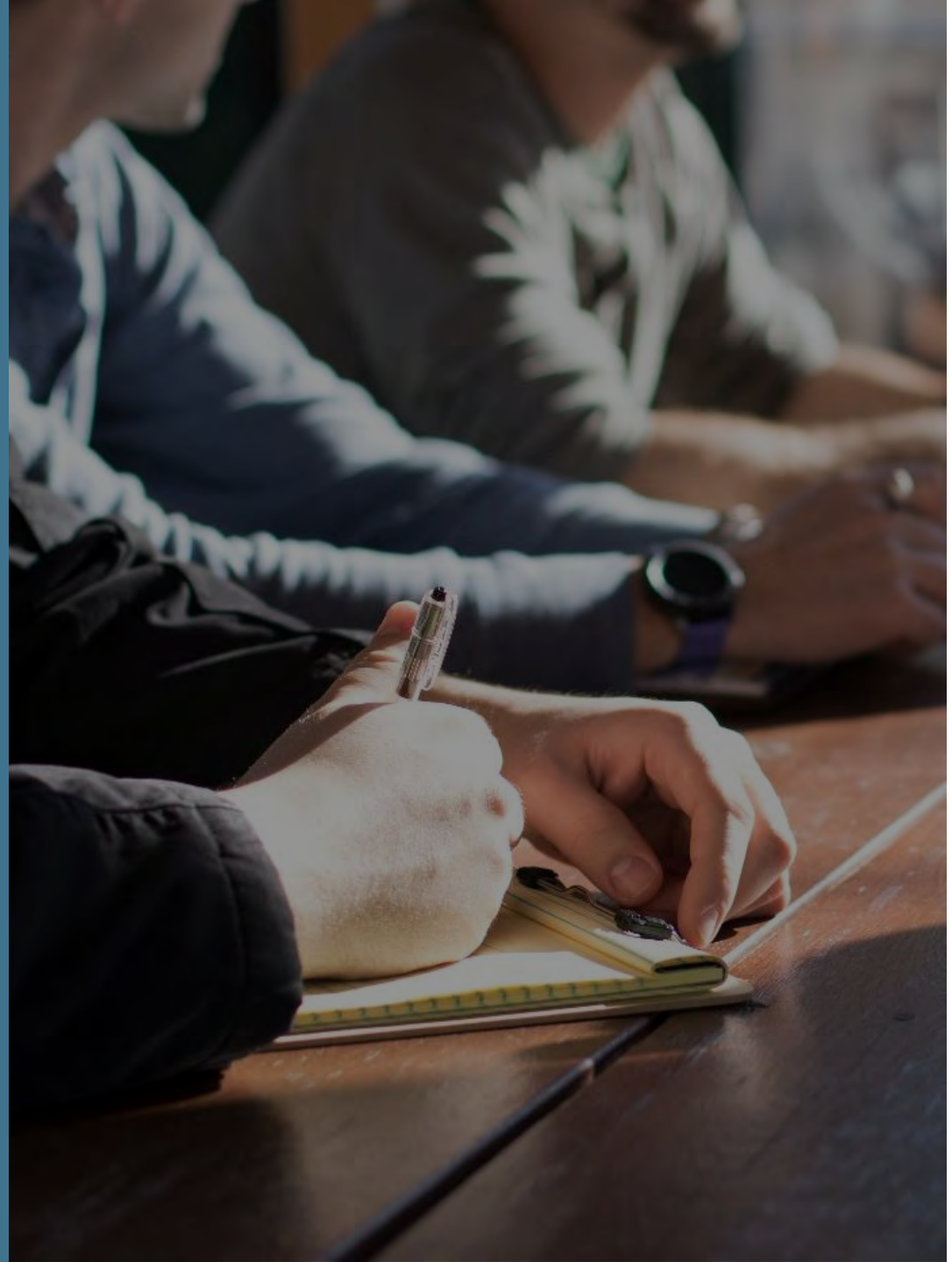
Business Insurance Coverage Options

- Business Income
- Business Interruption
- Commercial Automobile
- Commercial General Liability (CGL)
- Commercial Property (Building and Contents/Stock)
- Crime
- Cyber
- Directors and Officers Liability
- Home Business
- Professional Liability – known as Errors and Omissions



Two-year Time Limitation

- Insurance policies have a two-year limitation for the settlement of claims; all matters related to your claim should be finalized by the two-year mark
- There are ways to extend this time period, if more time is required, including a voluntary extension by the insurer
- Early estimates of insurance claims in July and August have had a significant impact on insurers. Preliminary numbers include:
  - Jasper wildfire ~3,000 claims
  - Ontario flood ~25,000 claims
  - Calgary hail ~35,000 claims
  - Montreal flood ~70,000 claims



Dispute Resolution

What to do if you disagree with an assessment?

- Contact adjuster/insurance rep
- Share info/invoices/support as needed
- Review the insurer’s complaint resolution process on their website
- Reach out to the insurer’s ombudsperson
- Contact IBC to discuss options
- Engage the General Insurance OmbudService (GIOCanada.org)
- Alberta’s Insurance Regulators have processes to deal with specific issues

IBC’s Consumer Information Centre (CIC)

People who have questions about insurance can contact IBC’s CIC

Consumer Information Centre
Toll-free: 1-844-2ask-IBC

E-mail: AskIBCwest@ibc.ca
@IBC_West

ibc.ca

Thank you!

Questions?

ibc.ca

IBC
Insurance Bureau of Canada

Biography

Rob de Pruis

National Director,
Consumer and Industry Relations

In his 30 years in the insurance industry, Rob has held various senior leadership positions in claims and risk management at some of Canada's leading insurance companies.

As National Director, Consumer and Industry Relations, Rob oversees the activities of IBC's Consumer Information Centres across the country, and leads the internal coordination of natural disaster preparation and response while liaising with IBC's member companies. Rob also facilitates collaboration between the insurance industry and relevant stakeholders on special projects and initiatives, and acts as IBC's corporate spokesperson on consumer-related issues.

Rob is passionate about lifelong learning and holds numerous insurance industry and professional designations.

AGENDA ITEM 5.3

REQUEST FOR DECISION

Subject:	Fire Department Staffing Requests
From:	Bill Given, Chief Administrative Officer
Prepared by:	Christine Nadon, Director of Protective & Legislative Services
Reviewed by:	Mathew Conte, Fire Chief
	Don Smith, Deputy Fire Chief
Date:	August 27, 2024

Recommendation:

- That Council approve the establishment of a Captain position in the Fire Department; and
- That Council approve the hiring of 10 contract Firefighters for a six-month term, to be extended as needed.

Alternatives:

- While alternatives to the recommendations above are possible, they are either more costly to implement or do not meet the required level of service to maintain the Jasper Fire Department operational, and therefore are not presented for consideration.

Background:

The Jasper Wildfire Complex deeply affected the Jasper Fire Department and its members. Eight of our volunteer firefighters lost their homes, and four lost their jobs. In addition to the intense work performed in the days leading up to the fire and the night of July 24, volunteer firefighters have been working shifts as part of the Incident Management Team to continue structural fire protection activities; restore our fire hall, trucks and equipment to reasonable standards; and maintain our level of service for highway rescues and structural fire protection. Without hiring our volunteers for shift work and bringing in fire departments from other communities to Jasper, we would not be able to meet the service levels required to keep the highway open and allow residents and businesses to occupy the town site.

In addition to the challenges outlined above, the Director of Protective Services, Fire Chief, Deputy Fire Chief and Captain of Training and Prevention have all taken leadership roles in the incident response, with the Director and Fire Chief still working out of town to support recovery efforts in the Joint Recovery Coordination Centre while the Deputy Chief has been running department operations in Jasper with little reprieve.

The Jasper Fire Department needs additional staffing to maintain basic levels of service and to be able to accommodate the increase in services which will be required through recovery and rebuilding of our community, namely in relation to fire inspection services.

Discussion:

In order to provide consistent highway rescue services, which make up the bulk of the calls for the Jasper Fire Department, a rescue truck and a crew of four firefighters must be able to depart the station for response in a timely fashion at all times. This service was previously provided by volunteer firefighters and supported by duty officers (Chief, Deputy Chief, Captains or Lieutenants). The personal and professional circumstances of everyone involved in the response have now changed significantly, resulting in our previous staffing complement being

insufficient to meet our service levels. This outcome is common in communities affected by large disasters, whether the fire department is staffed with volunteer or paid-on-call firefighters. Hiring contract firefighters for specific terms, usually up to two years, is a common approach to supplementing existing staffing to ensure service levels are met while the community gets back on its feet.

The request for 10 term contract firefighter positions would result in the hiring of eight contract firefighters, with the other two positions to be filled on a contracted casual basis by existing volunteer firefighters, who could pick up 24-hour shifts when they are available. While we anticipate some full-time term positions will be filled by existing volunteer firefighters, we will likely need to hire external firefighters as well. A team of four firefighters would work on a four-days on, four-days off schedule. Two additional firefighters are required to complete the rotation to cover days off, sick time, etc. The Protective Services leadership team has worked through a number of possible scenarios, scheduling and iterations of on-duty versus stand-by hours, and has landed on a proposal which will ensure our service levels are met; provide meaningful employment opportunities for our existing volunteer firefighters; and provide strong value for dollar for the community.

In addition to term firefighter positions, Administration is requesting the establishment of a second Captain position for the Fire Department. This position was slated for presentation to Council for 2026 to address the excessive workload currently placed on the Captain of Training and Prevention. This new position would bring our total full-time staffing complement for the Fire Department to four positions, including the Fire Chief, Deputy Fire Chief, and two Captains.

This position is required to bolster the volunteer-supported duty officer rotation (Command response) in view of the recent disaster; help supervise the additional firefighters proposed to be hired; and address the increase in requests for fire inspections which will arise from the reconstruction of our community. The volume of commercial inspections and Fire Code infractions was already a challenge before the disaster. We anticipate the number of requests for building inspections moving forward will only increase.

Strategic Relevance:

- Recognize the fundamental importance of our tourism economy
- Nurture our most important relationships which are those within our organization, all of whom share a commitment to best serve our community
- Communicate and engage with residents
- Focus on prevention, mitigation, and preparation for natural disasters
- Empower our staff by investing in the training and tools they require
- Entrust our staff to develop healthy relationships with the people they serve
- Ensure residents receive quality service that provides strong value for dollar
- Pursue alternative revenue sources and equitable distribution of costs

Relevant Legislation:

- Emergency Management Act (RSA 2000, cE-6.8)
- National Fire Code – 2023 Alberta Edition
- Jasper Fire Department Bylaw #189

Financial:

The dollars required to fund the term contract firefighter positions and the captain position are eligible expenses

under the Disaster Recovery Program (DRP). While the need for additional firefighters may be temporary in nature and proposed as a six-month term with the possibility of extension, the captain position is likely to become permanent, subject to Council approval, once the timeline for DRP funding is exceeded (two years).

AGENDA ITEM 5.4

REQUEST FOR DECISION

Subject:	Climate Change Adaptation Action Plan Development Update
From:	Bill Given, Chief Administrative Officer
Prepared by:	Mona El Dabee, Energy & Environment Manager
Reviewed by:	Beth Sanders, Director of Urban Design and Standards
Date:	August 27, 2024

Recommendation:

- That Council direct Administration to proceed with developing a five-year Climate Change Adaptation Action Plan with internal resources and present the plan at a future Committee of the Whole Meeting in spring 2025.

Alternatives:

- That Council direct Administration to proceed with developing a five-year Climate Change Adaptation Action Plan with external resources through one of the approved Climate Resilience Capacity Building Program Pre-qualified Contractors listed in Annex A.
- That Council take no further action.

Background:

In February 2023, through the Municipal Climate Change Action Centre's (MCCAC) Climate Resilience Capacity Building Program, the Municipality received $80,000 to move forward with a climate resiliency capacity building project. In March 2023, the Municipality selected The Resilience Institute as the lead contractor in partnership with Associated Engineering and the Prairie Adaptation Research Collaborative to develop a Climate Risk Assessment Report. Action and implementation planning was outside the scope of this assessment.

On February 27, 2024, Committee of the Whole received the Climate Risk Assessment Report for information and directed Administration to *"return to a future Committee meeting with recommendations on developing a Climate Change Adaptation Action Plan."*

Discussion:

A Climate Change Adaptation Action Plan aims to enhance a municipality's resilience to changing climate conditions and enable a community to better adapt, manage, and prepare for climate risks. To structure and advance Jasper's resilience journey, Associated Engineering recommended that the Municipality develop a Climate Change Adaptation Action Plan specifically targeting the highest risks as identified in their assessment. Wildfires, extreme heat, freezing rain, and glacial recession are the highest risks that could impact built, natural, social, and economic systems.

Administration has weighed the benefits of advancing the next steps in developing a comprehensive Climate Change Adaptation Action Plan internally versus externally. Based on other municipalities' experiences and consultant estimates, Administration can develop a five-year plan internally in six months versus one year with consultants.

The table below indicates the main differences between conducting the Climate Change Adaptation Action Plan

internally and externally.

	Internally	Externally
Time	6 months	12 months
Cost	No direct costs	$50,000 to $150,000 in consultant fees
Pros + Cons	Pros: • Quicker to complete plan and initiate actions • The Climate Risk Assessment Report lists clear and appropriate recommendations to start planning from • Extensive amount of plans and reports readily available online through MCAAC • Administration has a clear understanding of objectives to achieve ambitious yet realistic goals • Develop a plan that generates actions that can be incorporated into existing municipal processes and funding opportunities • Retain possibility to seek external consulting if the need arises Cons: • Staff constraints and competing priorities	Pros: • Regional knowledge and focus • Engagement with expertise in the field Cons: • Extensive allocation of internal resources to manage consultant and deliverables • Actions will take longer to achieve, not getting to tactics for a few years • Costly, funding is not available at the moment through MCCAC for the planning phase • Lack of local knowledge

Multiple resources are available to aid in developing a Climate Change Adaptation Action Plan. The Climate Resilience Express: A Community Climate Adaptation Planning Guide, created by the MCCAC and the All One Sky Foundation, lays out four steps that provide a flexible approach to climate adaptation planning that can be tailored to a community's needs (see diagram on page 3 of Annex B). Jasper is currently at Step Three, which includes defining actions to manage priority climate impacts and consequences, assessing and prioritizing actions, and formulating a Climate Change Adaptation Plan. Step Four is the implementation and monitoring phase. Working from the Climate Risk Assessment Report, the Municipality can manage Steps Three and Four while working collaboratively with community organizations, knowledge holders, and citizens to create a realistic plan that includes near, medium and long-term implementation actions of variable financial costs.

As of March 10, 2023, the MCCAC's Climate Resilience Capacity Building Program stopped receiving funding applications. Funding is expected to reopen in February 2025 for Adaptation in Action feasibility studies and implementation projects. Completing Jasper's plan internally allows us to meet the new funding application deadline, which would be beneficial for implementing early adaptation actions.

Strategic Relevance:

- Focus on prevention, mitigation, and preparation for natural disasters.
- Include an environmental lens in our decision-making and operational plans.
- Take proactive steps to reduce the risk of people becoming vulnerable as our climate changes.

- Take proactive steps to increase our capacity to respond when people are vulnerable.

Inclusion Considerations:
The recommendation reflects Jasper's commitment to inclusivity and the importance of adapting to climate change impacts for all residents and future generations. By engaging in climate change adaptation actions, Jasper demonstrates its dedication to promoting a resilient community and sustainable economy.

Relevant Legislation:
- Jasper Community Sustainability Plan

Financial:
Current Administrative resources can prepare a Climate Change Adaptation Action Plan. We estimate a cost of $50,000 to $150,000 to have an external consultant develop the plan, plus administrative resources to manage the consultant.

Attachments:
- Annex A: Climate Resilience Capacity Building Program Pre-qualified Contractor List
- Annex B: Climate Resilience Express - A COMMUNITY CLIMATE ADAPTATION PLANNING GUIDE

Municipal Climate Change Action Centre

Climate Resilience Capacity Building Program Pre-qualified Contractor List

Capacity building supports for Alberta municipalities and Indigenous communities

The Climate Resilience Capacity Building Program helps Alberta municipalities and Indigenous communities better understand, manage, and adjust to changing climatic conditions.

This Program offers three funding streams, each with specific objectives and participation criteria. The purpose of each stream is outlined below:

- **Planning Stream:** Funding will be provided to communities in Alberta for the assessment of climate risks and vulnerabilities, and the creation of a climate adaptation and resilience plan.

- **Strategies and Initiatives Stream:** Funding will be provided to communities in Alberta for research and assessment of the feasibility of adaptation measures in community plans and preparing actions for implementation.

- **Indigenous Climate Resilience Stream:** Funding will be provided to Indigenous communities in Alberta for projects that increase community capacity on climate resilience, recognizing the unique impacts, needs, and perspectives of Indigenous Peoples, including the use of Indigenous and/or Traditional Ecological Knowledge.

The Climate Resilience Capacity Building Program supports climate resilience activities directly controlled or influenced by a community. Topics or sectors may include but are not limited to water quality and quantity, assets and infrastructure, agriculture, forestry, economy, human health, food security, and knowledge transfer / capacity building.

Eligible costs for each program stream include contracted services performed by a qualified service provider.

If a community decides to solicit the services of a contractor, the Action Centre recommends that communities solicit quotes from 2 or more service providers. Contractors should work with the community to share information about their supports and services, and to define a scope of work that best supports the needs of the community.

Communities may use a pre-qualified contractor or select their own contractor.

The Action Centre recognizes that procuring services of a contractor can be time-consuming. The Action Centre conducted a request for qualification procurement process to identify pre-qualified contractors with the skills and experience to provide Program services. Communities that use a pre-qualified contractor may leverage this procurement process, expedite their application, and move quickly into project implementation.

Municipal Climate Change Action Centre

Pre -qualified contractors are listed here in alphabetical order:

- AECOM Canada
- All One Sky Foundation in partnership with ClimateWest, Associated Engineering, ESSA Technologies
- ICLEI Canada
- Kerr Wood Leidal in partnership with Diamond Head Consulting, RDH Building Science
- Morrison Hershfield in partnership with Nodelcorp, Shared Value Solutions
- QUEST in partnership with the Centre for Indigenous Environmental Resources (CIER)
- Stantec
- Urban Systems
- WSP

This document contains one-page abstracts for each pre-qualified contractor. The abstracts include details on the primary contact, a description of supports offered, and the approach they would take with communities.

Municipal Climate Change Action Centre

AECOM Canada Ltd.	
Primary Contact	**Primary Contact Information**
Randy Rudolph, **Deputy Project Manager**	randy.rudolph@aecom.com 403-254-3349 www.aecom.com

Description of supports offered

AECOM has over 15 years of experience in climate adaptation planning for Canadian communities and can draw on small-community planning expertise from around the world to apply best practices to help you understand your climate risks and ways to address them. As an example of our work, we developed the carbon abatement planning tool called Climate Action for Urban Sustainability (CURB), which supports cities' GHG emission abatement efforts. AECOM is also an active member of ICLEI Canada and North America and has supported numerous local governments in understanding unique climate change impacts and resilience options. We advance resilience, sustainability and ESG initiatives within our own operations, and in partnership with our clients, through our ESG strategy called *Sustainable Legacies*.

We are members of the Canadian Council for Aboriginal Business (CCAB), Circle for Aboriginal Relations (CFAR), Northeastern Alberta Aboriginal Business Association (NAABA), and Canadian Advancement of Native Development Officers (CANDO). We offer these as evidence of our support to Indigenous communities to foster sustainable and meaningful socio-economic development.

We are prequalified to support you, and here is how we can help:

1. Help your community leaders understand the issue and create a team to work with our company.
2. Gather scientific and community knowledge of how the climate is predicted to change in your area
3. Establish a list of potential impacts and prioritize which aspects of this change might affect you most.
4. Identify risks and opportunities and costs, and the capacity of your community to address them.
5. Identify goals for your community action plan
6. Identify the policies need to achieve the goals, and gaps in your current plans
7. Support development of your implantation plan

Our team will be led by Calgary based project managers, supported by our Indigenous Relations team in Edmonton and Climate Change specialists throughout Canada. We can support detailed planning, as we did for the city of Calgary when they took part in the 100 Resilient Cities initiative, or we can support initial information gathering and planning to meet your needs.

Specific processes

We will customize our service to best fit your community – pricing, timelines, and deliverables. We will support your community from start to finish, offering 9-12 months working together with you for the development and delivery of a Climate Change Action Plan. To support climate adaptation planning, we follow these standards:

- ISO 31000 for risk management assessment
- Infrastructure Canada's Climate Lens Assessment
- Engineers Canada's Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol

We can augment adaptation planning with GHG emission reduction support, and we follow ISO 14064 protocols for emission estimation, inventory, and verification. AECOM follows structured approaches based on ISO 9001 protocols to ensure our plans meet quality standards and are well managed to serve your community.

Municipal Climate Change Action Centre

All One Sky Foundation + Partners	
Primary Contact	**Primary Contact Information**
Jeff Zukiwsky **Director, Climate Adaptation and Resilience**	jeff@allonesky.ca 778-519-7699 allonesky.ca

Description of supports offered

All One Sky Foundation and our partners ClimateWest, Associated Engineering and ESSA Technologies are pleased to offer your community a team of nationally recognized experts with decades of experience developing tailor-made climate adaptation strategies for communities of varying sizes, capacities and needs. In the last 10 years we have supported over 40 communities across Canada, including **22 in Alberta**, to assess their climate change and develop cost-effective, actionable strategies to address these risks, as well as seize opportunities that arise.

We recently partnered with the Municipal Climate Change Action Centre to update our climate adaptation planning guidebook (Climate Resilience Express) for Alberta communities. We previously used the Climate Resilience Express process to work with 14 Alberta communities, ranging in size from the City of Spruce Grove to the Town of Bruderheim, to develop custom Climate Resilience Action Plans. Our Alberta experience also includes developing more detailed climate resilience strategies with the City of Leduc and the Town of Canmore, supporting the development of Edmonton's Climate Adaptation Strategy and Action Plan, and assessing climate change risks to assets and infrastructure for the City of Lethbridge. We also developed the award-winning City of Selkirk Climate Change Adaptation Strategy.

We understand that there is no one-size-fits all approach to climate adaptation planning—each community is unique. We offer a wide range (a menu) of climate adaptation planning and decision supports and can work with you to tailor these to your community's needs. We offer: a **LITE** approach for smaller communities that places minimal demands on staff and can be completed rapidly; an **EXPRESS** approach that uses a proven one-day workshop with staff as the basis for the adaptation plan (e.g., the Climate Resilience Express); and an **EXTENDED** approach involving more intensive input from community members and stakeholders over a longer timeframe, and assesses risks and adaptation actions in greater detail (e.g., Town of Canmore and the City of Selkirk). Depending on your needs, we can offer climate risk modelling and mapping as well as the quantification of risks and opportunities for your community, including economic impacts.

Each approach is scalable from asset-level to organizational or community-wide plans. Our team's capabilities also extend to helping you ensure your climate adaptation strategy is just and equitable, by integrating consideration of inequity, inequality and disparity across all stages of the planning process.

Our work with the Edmonton Climate Adaptation Collaborative has also taught us that there are many benefits from communities working together at a regional scale to manage climate risks and opportunities. We can work with you to determine if collaboration is in your best interests, then to define your shared needs and develop a tailored joint solution from our menu of offerings that meets those needs.

All of our tailored solutions are grounded in international best practices for risk and vulnerability assessment and climate adaptation planning, including the newly released ISO 14092 Guidance on climate adaptation planning for local governments and communities.

Municipal Climate Change Action Centre

ICLEI Canada	
Primary Contact	**Primary Contact Information**
Ewa Jackson **Managing Director, ICLEI Canada**	ewa.jackson@iclei.org // 647-728-4387 www.icleicanada.org

Description of supports offered

ICLEI Canada has become a leader and respected authority across Canada – and internationally – in the field of adaptation. With our Building Adaptive & Resilient Communities (BARC) suite of solutions, we help communities by providing an array of tools, programs and resources to increase their capacity to respond to a changing climate in an interactive and accessible way. Our BARC work ranges from facilitated-interactive workshops, to applied research projects, to full program support, to direct consulting projects. This suite of solutions is helping to support individual community climate resilience building as well as the advancement of resilience across the country. The depth and breadth of our experience can be explored at www.icleicanada.org/adaptation.

We can support municipalities across Alberta in all three areas of focus:

- To advance understanding of the risks associated with climate change,
- To develop and assess adaptation options that will improve community resilience, and
- To prepare plans for implementation of options to adapt to a changing climate.

We can work one-on-one with a municipality, or with groupings of municipalities formed around geography, climate impacts of interest, governance structures, etc. We will collaborate with your community to help explore your needs and jointly develop a scope of work or respond through a traditional procurement process.

Specific processes

Planning for a changing climate at the local level and implementing adaptation initiatives is challenging for most municipalities, and in particular smaller and rural municipalities that often lack the resources and capacity to take on additional efforts related to assessing impacts, developing plans, and implementing actions to reduce risk. Our work will aim to engage and work with these types of municipalities and their local partners (business leaders, not-for-profit, conservation authorities etc.) across Alberta, by building local capacity to understand climate science, identify climate impacts, assess climate risks, and develop implementation-ready adaptation plans that represent what matters locally. At the same time, we will integrate analysis of equity and how to protect the most vulnerable populations from facing disproportionate climate impacts.

Our services and the methods, we will use to deliver them, will help participating municipalities advance their understanding of the local risks associated with climate change, develop and assess adaptation options that will improve their community resilience, and ultimately to prepare plans that can be implemented and help adapt to a changing climate. Municipalities and communities are at different stages of preparing for a changing climate. For this reason, we categorize our offerings into three stages:

Identification. This involves understanding any work done to date that is preparing for a changing climate, identifying who should be involved locally (as either a partner or stakeholder), establishing local objectives and workplans, and taking a first look at the impacts of weather that are already being experienced.

Applying climate science. Understanding how to use and apply climate data/information from various sources, identifying local climate impacts and assessing the community's vulnerability and risk to these.

Planning. Using the vulnerability and risk assessments to create a local climate adaptation plan to address the identified risks (with a particular focus on implementation and monitoring metrics). We will focus on identifying all of the necessary implementation considerations, to leave participating municipalities ready to fully advance on implementation.

Municipal Climate Change Action Centre

KERR WOOD LEIDAL ASSOCIATES LTD.	
Primary Contact	**Primary Contact Information**
Dirk Scharbatke, P. Eng. **Project Manager**	dscharbatke@kwl.ca // 587-349-8299 www.kwl.ca

Description of supports offered

Kerr Wood Leidal (KWL) has assembled a multi-disciplinary team of climate change planners and industry-leading technical experts who specialize in managing the most severe climate hazards faced by Alberta communities: flood, extreme weather (e.g., stormwater, hail and windstorms), drought, and wildfire. Together with our team of sub-consultants Diamond Head Consulting and RDH Building Science we hold the skills necessary to deliver a full suite of climate change capacity-building services to Alberta municipalities and Indigenous communities.

We have used our tried-and-true four stage climate planning and capacity-building approach successfully with municipalities and Indigenous communities across BC, including the Tsleil-Waututh Nation Climate Vulnerability Assessment and Resilience Plan, the North Shore Sea Level Rise Risk Assessment and Adaptive Management Strategy, and the Toquaht Nation Climate Adaptation Plan.

KWL is an industry leader in flood and drought management and a trusted advisor for communities across Western Canada. We have over 40 years of experience working with small, rural, and Indigenous communities and we understand the barriers many communities face in leading climate action (including resourcing, competing near-term priorities and lack of local downscaled climate data for use in planning). We are flood, stormwater, and water supply management experts and provide consulting services broadly in climate adaptation planning, water resources engineering, community infrastructure planning and design, renewable energy, resource and environmental management, habitat restoration, land use planning, and project management. Our clients include small and medium-sized local governments, Indigenous communities, provincial and federal agencies, not-for-profit organizations, and industry. Our partner Diamond Head brings wildfire risk management, forestry planning and urban ecosystems management expertise to our team. RDH Building Science offers climate change mitigation and adaptation planning for building management and renewal, considering carbon emissions, energy performance, extreme weather and wildfire resilience.

Specific processes

Working with Municipalities & Indigenous Communities: KWL has over 40 years of experience working with municipalities and Indigenous communities across Western Canada. We are a trusted advisor and have been working with some communities for over 40 years.

Climate Adaptation Capacity-Building: Building local capacity is a key objective in our climate planning practice. Wherever possible, we work to support local staff to lead technical tasks in the planning process.

Climate Risk & Vulnerability Assessment: Our vulnerability and risk assessment approaches are founded on the ISO 31000 standard and uses a semi-qualitative, workshop-based approach to drive data-informed decision-making. Our team includes certified risk assessment specialists experienced with federal climate lens assessments, probabilistic flood and wildfire risk modelling, benefit-cost analysis, and multi-criteria decision-making models.

Climate Adaptation & Resiliency Planning: Our team takes a value-based approach to climate planning: we work closely with each community to ensure their climate plan is scoped to the climate hazards and impacts most relevant in their local context.

Workshops, Guidelines & Toolkits: Our team has extensive experience designing and delivering interactive workshops about climate change resilience. We also excel in leading community engagement that is meaningful, encourages input from diverse voices, and builds community buy-in to planning outcomes.

Municipal Climate Change Action Centre

Morrison Hershfield Limited / Nodelcorp Consulting / Shared Value Solutions	
Primary Contact	**Primary Contact Information**
Chad Newton **Senior Project Manager, MBA, PMP, Principal**	CNewton@morrisonhershfield.com 780-483-5200 ext.1042229 / 780-909-2423 https://morrisonhershfield.com/climate-change-mitigation/

Description of supports offered

As a prequalified contractor, Morrison Hershfield can support municipalities and Indigenous communities across Alberta in the Climate Resilience Capacity Building Program (CRCBP). MH has worked with over 140 municipalities in Alberta and many Canadian First Nations and Indigenous Groups. The team recognizes the importance of integrating climate science and knowledge and **local community and Indigenous Knowledge** (as applicable and shared) in support of decision making. MH has partnered with Nodelcorp Consulting Inc. (NCI) and Shared Value Solutions (SVS)to provide a full range of **climate mitigation, adaptation, and resiliency planning, community engagement and training services** for the CRCBP**.** NCI have worked with businesses, municipal, provincial, and federal governments for almost 30 years to help in reducing the impacts of climate change. SVS specializes in building long-term relationships with Indigenous clients with a focus on land use studies, traditional ecological knowledge and socio-economic impact studies.

MH, NCI and SVS understand that there are no "one size fits all" engagement and climate resilience solutions, and we will work your community to develop a project-specific scope and schedule. MH, NCI and SVS will work in collaboration with your community to accomplish your unique goals and have created a 12–18-week typical project work plan to include the following "full-package" climate resilience components for an individual community:

(1) **enhance climate literacy**
(2) complete **climate-risk assessments** and
(3) create **climate adaptation plans**

Morrison Hershfield is a market-leading, **Canada-based** multidisciplinary engineering and environmental consulting firm committed to supporting the social well-being and economic prosperity of the communities we serve. MH works in **collaboration** with our clients to find solutions best suited to their needs.

Specific processes

MH, NCI, and SVS will customize our services and project team to best fit your community needs – pricing, timelines, and deliverables will be approached collaboratively. We will provide experienced project management to make sure the project performs as required in a timely manner using a project management framework.
To support climate resilience planning, we also have expertise in:

- ISO 31000 for risk management assessment
- Infrastructure Canada's Climate Lens Assessment
- Engineers Canada's Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol
- Project Sustainability – LEED and Envision Frameworks
- Incorporation of Community and Traditional Indigenous Knowledge (TIK)

Where community partners request the services of MH the anticipated timeline will be extended by an additional 2 weeks per community included in the partnership project. **Communities in partnerships can expect cost savings.** *Given the current Covid-19 global pandemic, MH recognizes the importance of utilizing online and virtual training and engagement formats. MH is experienced and flexible in our approach to a virtual delivery platform.*

Municipal Climate Change Action Centre

QUEST	
Primary Contact	**Primary Contact Information**
Eric Timmins, **Senior Lead, Projects**	etimmins@questcanada.org 866-494-2770 ext.712 https://questcanada.org

Description of supports offered

QUEST, in partnership with the Centre for Indigenous Environmental Resources (CIER), will work with municipalities and indigenous communities to develop robust climate adaptation plans that identify and manage climate-related risks. Conducted through a local, community-focused approach, we will provide administrative support, comprehensive coaching, and custom resources to Municipal or Community Leads as part of our services. Supports offered also include:

1. **A Climate Risk & Resilience Assessment Report** - a rigorous assessment of municipal strengths and vulnerabilities in the face of climate change
2. **A Climate Adaptation Recommendations Report** - an action plan outlining realistic pathways to improve resilience and track progress
3. **Community Resilience Infographic(s) & Key Messaging and Next Steps document** - impactful materials to share key project takeaways with stakeholders and community members

Communities participating with us will have the right skills, tools, and information to make informed decisions to build safer and more resilient communities. Our team has successfully completed community resilience assessments in 7 Alberta municipalities by developing local capacity, building active partnerships amongst stakeholders and leading resilience improvements on the ground. As a national non-profit organization, QUEST is committed to supporting communities interested in understanding their risk to climate change impacts and identifying realistic pathways.

Specific processes

Through this project, our team of qualified resilience professionals will help Alberta communities increase their resilience against the impacts of climate change and extreme weather by aligning asset management and planning processes. Our process is highly customizable to the local context and will occur over an 8-to-12-month period, depending on your Community's capacity. Our team combines established climate data portals, well-established resilience frameworks, community surveys and highly interactive participatory workshops to achieve these goals. Our focus is on building your local capacity to understand the climate resilience assessment process and give you publicly available tools that allow you to update your climate adaptation plan in the future.

Municipal Climate Change Action Centre

Stantec Consulting Ltd.	
Primary Contact	**Primary Contact Information**
Tanya Doran LEED Green Associate, Fitwel Ambassador **Principal, Carbon Lead Western Canada**	Tanya.Doran@stantec.com // 780 917-1885 Sustainability (stantec.com)

Description of supports offered

Hi we're Stantec. We are here to help you with adaptation supports and services including:

- Climate Adaptation Capacity-Building
- Climate Risk and Vulnerability Assessments
- Climate Adaptation and Resiliency Planning
- Workshop Design and Delivery, Development of Guidance Documents and Toolkits for Communities

We have in-house resources and specialists to adapt and respond to community issues and needs – whether that be broad adaptation plans for the community, flood hazard management, risk assessments for particular asset classes, education / awareness for elected officials or the public, and more.

Our service areas include, environmental and atmospheric sciences, community adaption and mitigation planning, sustainability and resiliency, Indigenous engagement, facilitation services, education, and capacity building. We have a full services team to support today's climate realities and our collective future. Our expertise and understanding of municipal infrastructure and portfolios can be engaged to support our services.

We understand Indigenous communities have challenges of funding, population size, lack of capacity, and competing priorities that often mean that planning initiatives take a back seat to service delivery. Our team will work with clients to engage Indigenous communities appropriately and meaningfully. We are grateful when people are willing to contribute their thoughts and experience because it helps to build a Plan that reflects the community and their values.

Our sample experience: City of Cambridge Adaptation Plan 2019 | Climate Change Impacts on Water and Wastewater Infrastructure at Akwesasne – Final Report | Climate Change Impacts on Water and Wastewater Infrastructure at Moose Factory - Final Report

We are active in developing climate adaptation plans across Canada, guiding municipalities and post-secondary institutions through a planning process that integrates with their design guidelines and policy framework. We are currently working with the City of Ottawa and the National Capital Commission (NCC) on their climate change vulnerability and risk assessments and adaptation plans.

Specific processes

As a prequalified contractor the Stantec climate adaptation team is well equipped to provide guidance on climate resilience as it fits within the local government context. We have conducted climate vulnerability and risk assessments and adaptation plans using the ICLEI BARC (Building Adaptive and Resilient Communities) protocol, and we have completed dozens of Climate Lens assessments and provided specific recommendations across various infrastructure types based on the Institute of Catastrophic Loss Public Infrastructure Engineering Vulnerability Committee' s (PIEVC) Protocol and ISO (International Standards Organization) 31000 Risk Management Standard. For Indigenous communities, our adaptation planning methodology is also consistent with the 'Climate Change Planning Tools for First Nation' (2006).

It requires **10-12 months for a community to develop a robust adaptation plan**. There is no 'one-size fits all' approach for communities to anticipate, plan or adapt to climate change. Each community has unique asset portfolios that must be considered. Additionally, each community may require a different level of support, guidance and learning tools and scope when developing a plan. We offer flexibility in our approach and customize it according to the local community objectives and context.

Municipal Climate Change Action Centre

Urban Systems	
Primary Contact	**Primary Contact Information**
Meghan Aebig, **Principal, P. Eng.** **Community Consultant**	maebig@urbansystems.ca 780-670-4229 www.urbansystems.ca

Description of supports offered

Urban Systems is a professional community consulting firm committed to supporting vibrant communities. Since we were founded in 1975, we've worked alongside municipalities, governments, Indigenous communities, agencies, and private sector clients to develop safe and sustainable communities, transportation networks, green spaces, water systems, and clean energy sources. The company started with a focus on assisting communities with their physical infrastructure and has adapted with the communities we work with to include a social impact aspect through the creation of Urban Matters.

Through Urban Matters, we've developed the "three C approach" (**convene**, **consult, create**) as a way of addressing complex problems, such as climate change.

Our team consists of specialists in Asset Management, Climate Resilience, Climate Vulnerability Infrastructure Assessments, Strategic Design Creation & Facilitation, Emergency Planning, Community Sustainability, Communications & Engagement and more. Our core team members are locals—they all live, work, and play right here in Alberta and can be at your office to provide in-person support when needed. We're also able to access our breadth of company-wide practitioners across our 15 offices in Western Canada and engage them as needed in conducting virtual municipal workshops, meetings, and council sessions.

As a relationship-based firm, we focus on working with clients rather than for them, which allows us to develop and maintain long-standing partnerships with municipalities and Indigenous communities. Some of the communities that we have long standing relationships with and have supported with climate resilience plans include Smith's Landing First Nation, Kanaka Bar Indian Band, and Saddle Lake Cree Nation. We've also worked with many municipalities across the province on advancing their asset management journey and have included a climate change component to address the risks and impacts to service delivery associated with climate change.

But enough about us–let's talk about you–are you experiencing more floods, fires or severe storms? Are you interested in incorporating a climate change lens into your asset management plans? Are there differing viewpoints within your organization and/or community regarding climate change? Are you concerned about the social impacts associated with climate change? Are you looking for an implementable plan that can be incorporated into the work you are already doing?

There isn't a one size fits all approach when it comes to a Climate Resilience Plan—our team is excited to work alongside you to create a plan that provides the most thoughtful and thorough solutions for your community. We want to help empower you to participate in building resilience in your community for the future. Visit our site to view our work, our stories, and more.

Specific processes

Our approach includes the following key elements; however, the details of the approach will be determined based on consultation with the community and the nuances of the local context:

1. Understanding the local context and primary concerns (regional approach)
2. Evaluate current and future climate change
3. Engage with the community to increase climate change awareness and document primary concerns
4. Conduct a vulnerability/risk assessment
5. Develop a Climate Change Adaptation Action Plan
6. Follow-up and support for implementation

Municipal Climate Change Action Centre

WSP	
Primary Contact	**Primary Contact Information**
Elise Pare **National Practice Lead, Climate Risk and Resilience, WSP Canada**	elise.pare@wsp.com // +1 250-362-3387 Website (hyperlink)

Description of supports offered

WSP's Climate Change team delivers industry leading expertise in climate science, vulnerability and risk assessments, resilient infrastructure, and climate resilience strategies. We are a multi-disciplinary professional services firm with +9,800 technical experts from across Canada. We can leverage a range of expertise in transportation, engineering, asset management, GIS, economics, planning policy, and more with the transformational acquisition of Golder, a global consulting firm with over 60 years of experience in providing earth sciences and environmental consulting services.

We can support communities through each stage of the resilience planning process:

- **Climate science and projections:** Our in-house climate science experts provide robust climate change projections specific to your geographic location. We identify the appropriate climate scenarios and indicators for your context, and translate complex climate data to inform risk assessments and adaptation actions.
- **Risk and vulnerability assessments:** We offer customizable risk and vulnerability assessment frameworks to evaluate risks to your community's infrastructure, environment, economy, and community wellbeing. Our approach is collaborative, and incorporates local and Traditional Knowledge to prioritize risks to the community. We can also produce geospatial risk maps to identify 'hotspots' for climate risks across your community and infrastructure.
- **Resilience strategies and implementation plans:** We combine diverse professional expertise with input from community stakeholders to identify realistic, cost-effective measures to reduce climate risks and build resilience. We create implementation-ready strategies by identifying action-specific drivers and constraints, cost-benefit analysis, policy, best management practices, and key performance indicators.

With offices throughout Alberta, our team has a history of successful partnerships with many communities, Indigenous-owned businesses and First Nation governments on a wide variety of projects. We have extensive experience in working with municipalities and First Nations in Western Canada to increase understanding of climate change impacts to community infrastructure, health and well-being, and to develop skills and knowledge to undertake risk assessments and prepare adaptation plans. The team has extensive experience in collaborating with First Nations, Métis and Inuit communities on complex problems and interdisciplinary environmental, socio-cultural, and economic impacts associated with natural resource development and climate change and conducting participatory research and focus group interviews, traditional land use mapping, and designing community-centered research programs. We work closely with our Indigenous Relations team who are experienced partnering with Indigenous clients to ensure that Traditional Knowledge is collected and respectfully applied to projects.

Specific processes

Our typical timeline to deliver a climate change risk and vulnerability assessment and community adaptation plan ranges from 6-12 months, dependent on the assessment scope. Our climate risk and vulnerability assessment framework are customized to the community's needs. We are skilled in the application of ISO Risk Management and Adaptation Standards (ISO31000,14090/91); the PIEVC Engineering Protocol, or community-wide risk assessments using approaches compliant with ICLEI's Building Adaptive and Resilient Communities process.

CONTACT THE MUNICIPAL CLIMATE CHANGE ACTION CENTRE

Questions about the Climate Resilience Capacity Building Program may be directed to:

Municipal Climate Change Action Centre
300-8616 51 Avenue
Edmonton, AB T6E 6E6
780-433-4431
contact@mccac.ca

Climate Resilience Express

A COMMUNITY CLIMATE ADAPTATION PLANNING GUIDE

November 2021

All One Sky FOUNDATION

Municipal Climate Change Action Centre

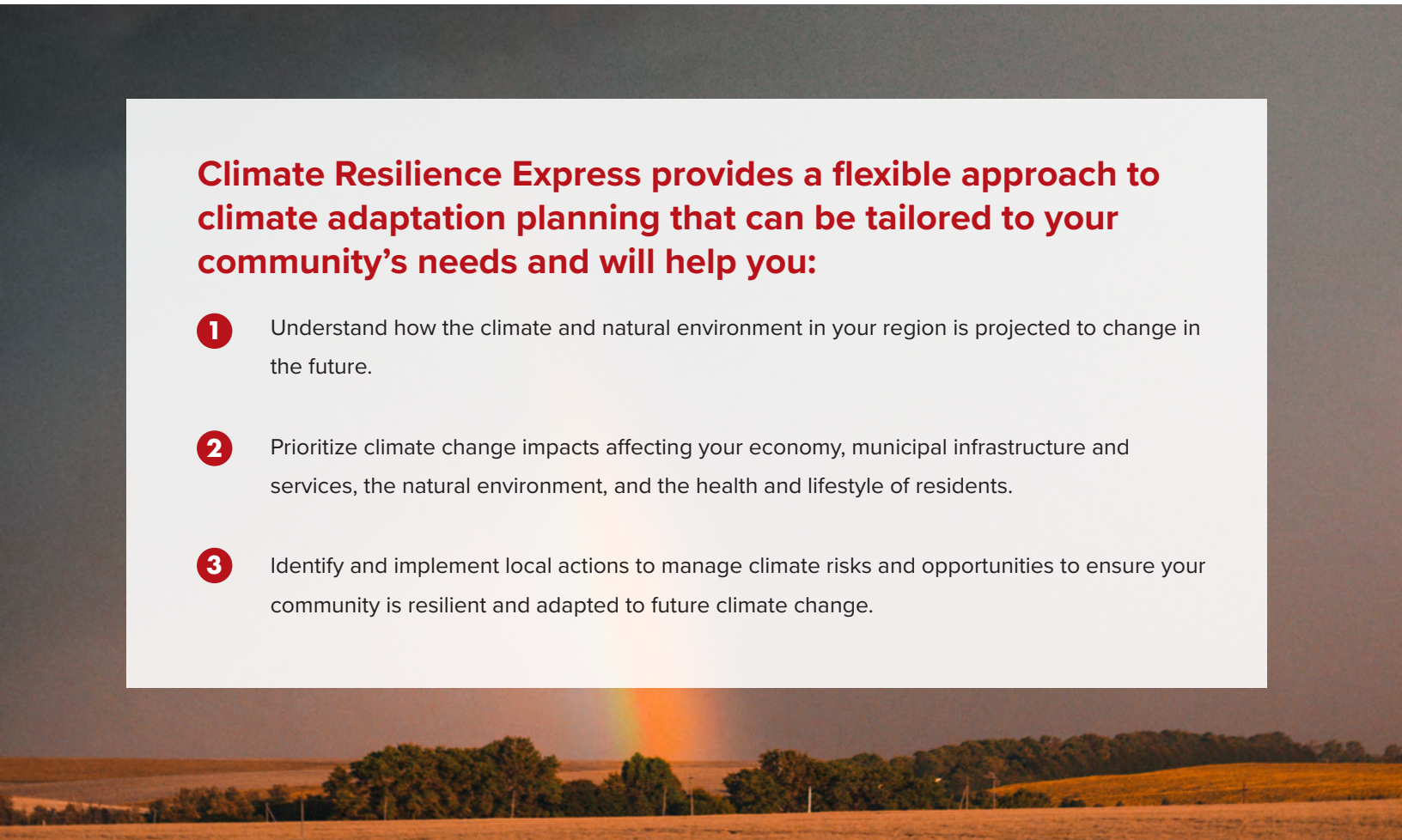
Overview

Why do you need a Climate Adaptation Plan?

The climate is already changing. Alberta's climate has warmed by about 2°C over the past 50 years and is projected to warm by another 4°C by the end of this century.

Communities are experiencing significant negative impacts under current climate conditions. Past climate change influenced the 2016 wildfire in Fort McMurray and 2013 floods in Southern Alberta. Further climate change is inevitable meaning such events will become more common and severe.

Planning for climate change will make your community more resilient — reducing economic, social and environmental impacts, and saving money. There are many simple, cost-effective actions your community can implement today.



Climate Resilience Express provides a flexible approach to climate adaptation planning that can be tailored to your community's needs and will help you:

1. Understand how the climate and natural environment in your region is projected to change in the future.
2. Prioritize climate change impacts affecting your economy, municipal infrastructure and services, the natural environment, and the health and lifestyle of residents.
3. Identify and implement local actions to manage climate risks and opportunities to ensure your community is resilient and adapted to future climate change.

Climate change is one of the greatest challenges we face. Managing climate change involves:

1. Reducing greenhouse gas emissions and enhancing sinks that capture and store carbon **(climate mitigation)**.
2. Preparing for the impacts of a changing climate **(climate adaptation)**.

Mitigation will help avoid the unmanageable. **Adaptation** is essential to manage the unavoidable.

Climate Resilience Express is focused on climate 'adaptation' — actions to efficiently manage the negative impacts of climate change or take advantage of new climate-related opportunities.

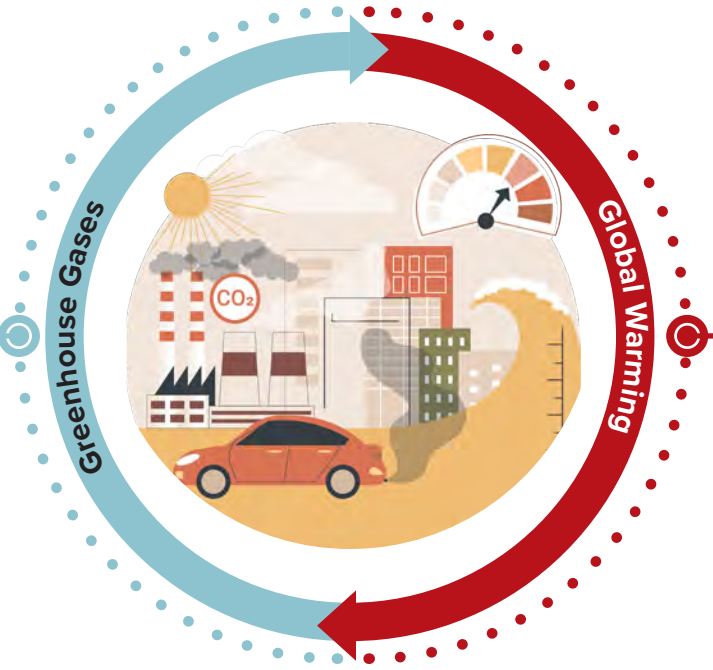
Mitigation actions

reduce or prevent releases of greenhouse gases to the atmosphere or capture and store carbon

Adaptation (or resilience) actions

focus on managing the anticipated impacts of climate change to your community

Greenhouse gases are released to the atmosphere, trapping heat and **causing** global warming



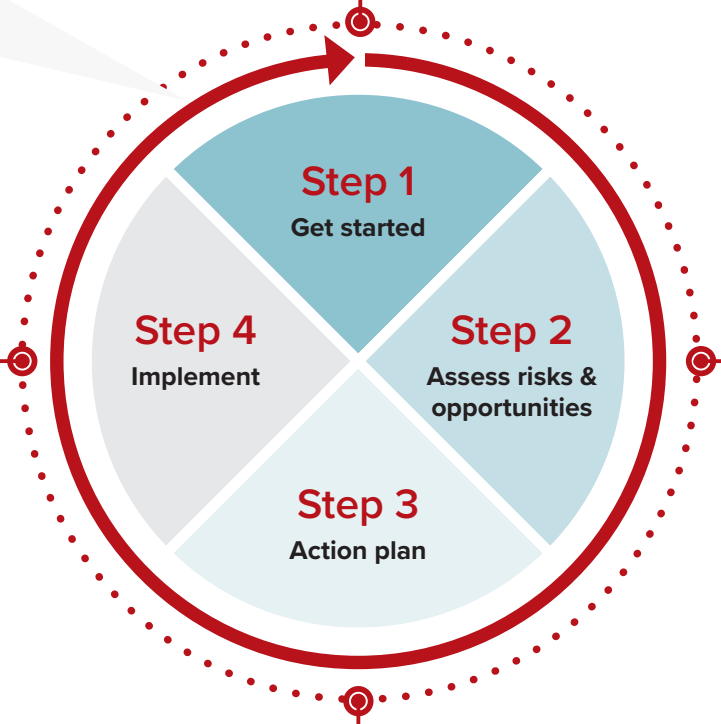
Global warming is changing the regional and local climate which will **impact** your community

Climate Resilience Express is a community-led, participatory approach to climate adaptation planning, that involves four steps:

The purpose of step 1 is to:

- Determine the scope of the planning process [Pages 4 & 5]
- Develop a plan to engage stakeholders and residents
- Compile climate trends and projections for your community [Page 6]

Climate adaptation planning and implementation is an ongoing process. We will always need to adapt!



The purpose of step 2 is to:

- Understand your communities' vulnerabilities
- Develop climate impact statements
- Conduct a climate change risk and opportunity assessment
- Determine priorities for action planning [Pages 7–13]

The purpose of step 3 is to:

- Define actions to manage priority climate impacts and consequences
- Assess and prioritize actions
- Formulate a Climate Adaptation Action Plan [Pages 14–17]

The purpose of step 4 is to:

- Commit funding and staff time to implement actions
- Partner with local and regional organizations
- Monitor impacts and actions
- Repeat the process every 5-10 years [Page 18]

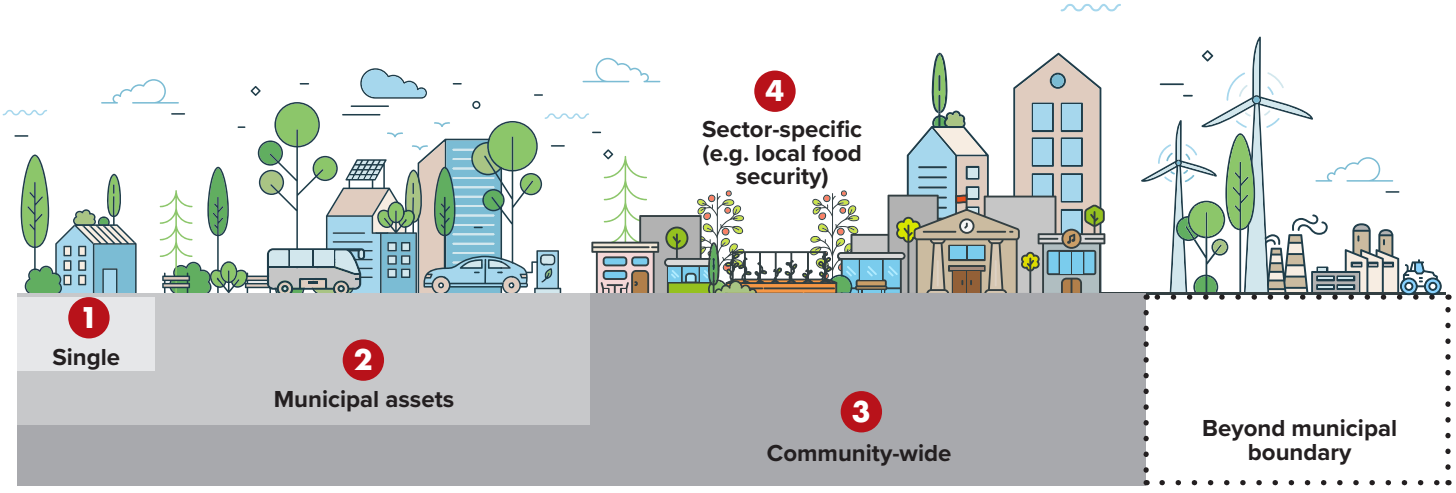
Step 1

Get started: determine the scope of the planning process

Climate Resilience Express is a flexible approach to Climate Adaptation Planning. The approach can be applied at almost any scale, for example:

1. **Single asset:** a specific site, facility, building, or piece of infrastructure
2. **All municipal assets, services and operations:** parks, transportation networks, civic buildings, and infrastructure, etc.
3. **Community-wide:** in addition to 2, all homes, private buildings and infrastructure, the local economy, ecosystem functions and services, the health and well-being of residents, etc., across the entire community or within a region.
4. **Sector-specific:** a specific sector or theme within your community, such as food security and agriculture, public health and safety, water security, ecosystems, recreation, etc.

You may also want to consider critical infrastructure and services **outside your municipal boundaries.** Daily life and economic activity in your community likely relies on water, energy and food sourced from outside the municipality, as well as systems for transportation and distribution.



Across the scoping options outlined on page 4, the Climate Resilience Express process can be tailored to your community's needs, resources, and timelines.

The climate adaptation planning process can be implemented as a simple, high-level screening exercise or as a more detailed, quantitative exercise, with many options in-between!

Simple, high-level screening		Detailed, quantitative
A simple process is likely more suitable for smaller communities with limited staff and resources	**Community size** →	A more detailed, quantitative process may be more suitable to larger communities with more resources and staff
Low	**Cost** →	High
Short; can be completed in a few months	**Duration** →	Lengthy; may take up to a year or more
Minimal; one staff dedicating 1-2 days to process	**Demands of staff** →	High; one or more staff dedicating several hours per week over the duration of the project
Minimal or none	**Stakeholder engagement** →	Intensive stakeholder engagement including workshops, community surveys, open houses, etc.
Qualitative; based more on experience and perceptions of stakeholders	**Climate risk assessment** →	Quantitative; based more on research and analysis of data on the likelihood and consequences of climate risks
Qualitative; based more on stakeholder knowledge and preferences	**Action planning** →	Quantitative; based more on analysis of the costs and benefits of potential actions

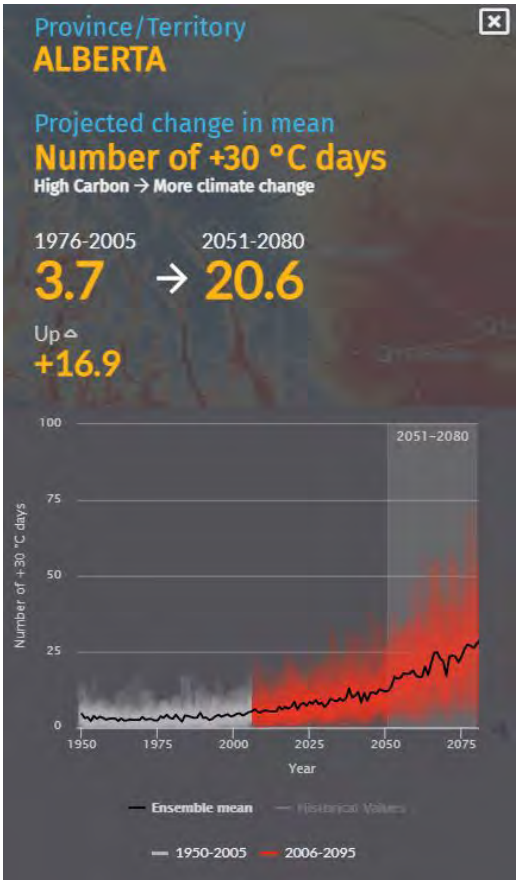
To perform the climate risk assessment in Step 2, you need to know how climate in your area is projected to change in the future. The final activity of "getting started" is to compile this information.

The Climate Atlas of Canada (the Atlas) is a great source of local climate data (www.climateatlas.ca). The Atlas provides valuable information for climate risk and vulnerability assessment and adaptation planning, such as:

- Future climate projections for a range of mean temperature and precipitation variables as well as extremes
- Projections for the 2030's (2021-2050) and the 2060's (2051-2080), relative to the historic climate
- Projections for two climate change scenarios – a low emissions scenario (RCP 4.5) and a high emissions scenario (RCP 8.5)
- Downloadable data which can be used to approximate the likelihood of climate impact events occurring in the future [Page 9]

In addition to monthly and seasonal temperature and precipitation projections, information is available for many different indicators of climate change such as:

- The Warmest Maximum Temperature of the year
- The total number of Very Cold Days when the temperature drops to -30°C or below
- The total number of Cooling Degree Days in the year, an indicator of demand for space cooling in homes and buildings
- The length of the Frost-free season



Example output from the Climate Atlas of Canada showing projected changes to the number of very hot (+30°C) days per year in Alberta (to the 2060s under a high emissions scenario). Historically, Alberta had less than 4 days per year above +30°C. By the 2060's, Alberta can expect over 20 per year.

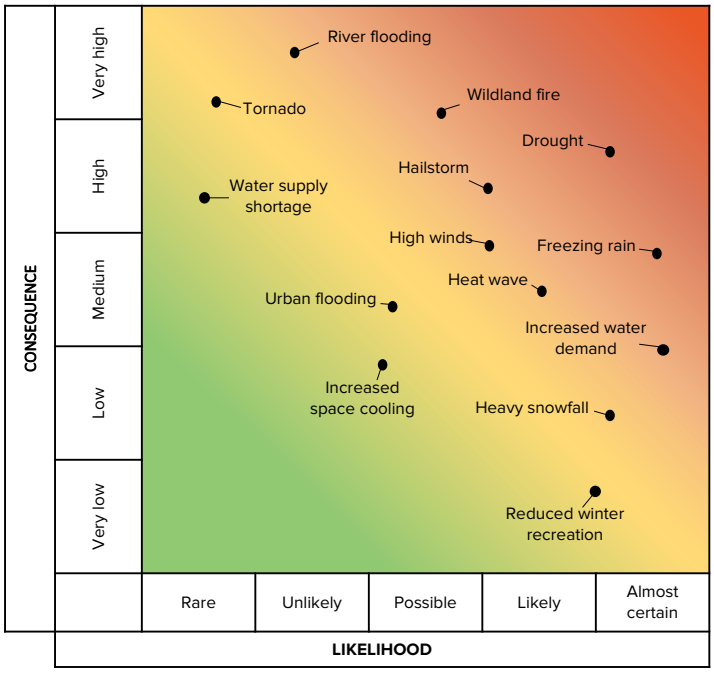
In addition to compiling information on local climate projections, it is also necessary to build an understanding of how these projections could impact assets, services, residents, and economic, cultural, social and natural resources in your community. To help with this, it is necessary to review academic journal articles and other research reports prepared by governments, non-profits, and the private sector.

Step 2

Assess risks & opportunities

Step 2 in the Climate Resilience Express planning process is where climate risks and opportunities are identified, assessed and prioritized. This involves:

1. **Developing climate impact statements** (or scenarios), that describe the links between projected changes in the local climate, a related hazard or opportunity, and potential impacts and consequences for your community.
2. **Defining a threshold or intensity level** for each identified climate hazard or opportunity, and **assessing the likelihood** of it occurring at that level in the future.
3. **Assessing the severity** (or magnitude) of consequences contained in each impact statement.
4. **Generating measures of climate risk** for each impact statement and presenting them in a format - like a risk rating matrix - that allows stakeholders to interpret and evaluate the results, and make decisions about priorities to take forward to action planning.



One way to present the findings of the risk assessment is to use a risk rating matrix (or 'heat map'), where likelihood and consequence scores for all climate hazards and opportunities are combined to determine an overall risk rating. Priorities for further action are then determined based on this combined rating. Climate hazards and opportunities with a higher likelihood and consequence (those in the top right corner of the matrix) are higher priority for action planning.

Developing climate impacts statements

For each climate risk and opportunity, an impact statement should be drafted. An impact statement identifies the “someone” or “something” that may be impacted, the specific way they could be impacted, and links these impacts to changes in the climate, as shown in the example below. Each statement should be specific to a single climate event with a defined threshold or intensity level.

The impact statement could be based on actual past events or on anticipated future scenarios. The important thing is to make them realistic, as they are used throughout the planning process and form the foundation of the risk and opportunity assessment.

CLIMATE CHANGES	CLIMATE RELATED EVENTS	IMPACTS	POTENTIAL CONSEQUENCES
• Hotter, drier summers • Less extreme cold • Increased precipitation • More extreme rainfall • Less precipitation as snow • More intense summer storms	• Drought • Longer growing season • Ecosystem shifts • Heat waves • Stormwater flooding • Wildfire	• Damage to homes and buildings • Water supply shortages • Damage to urban forest • Injuries • Reduced crop yields • Power outages • Loss of winter recreation	• Repair and replacement costs • Loss of ecosystem services • Hospitalizations • Loss of income • Reduced economic output • Stress and anxiety • Disruption to cultural or spiritual practices

When formulating impact statements, it is important to:

- Review historic climate-related events, for example, insurance claims or news articles on past weather events.
- Talk to experts, members of the community and elders to understand their experience with weather and extreme events.

Impact statements should be validated with experts and stakeholders in your community.

Determine the likelihood of climate impacts occurring

Climate risk is a function of the consequences of a climate impact event of a given intensity and the likelihood of it occurring. To assess the risk of an event, it is necessary to determine the likelihood that it will occur. When you generated the climate impact statements you will have defined a suitable threshold or intensity level for each climate event (e.g., number of "very hot days"). By suitable, we mean a level that could result in noteworthy impacts to your community.

If possible, you should generate likelihood estimates for the defined event threshold or intensity level both historically and in the future.

Likelihood estimates can be generated using one or more of the following methods:

1. **Historic event occurrence:** The likelihood of a climate event occurring in the past can be estimated from historic data, if available. Local reports or news articles may also contain estimated likelihoods for events that have affected your community.
2. **Known return intervals:** In some cases, the defined climate impact event will already be associated with a return interval, such as a 1-in-100 year 24-hour rainfall total, or 1-in-200 year low river flows, etc.
3. **Analysis of frequency distribution:** For some climate impact events, frequency distribution data can be downloaded from the Atlas, from which it is possible to approximate the likelihood of the defined threshold or intensity level occurring.
4. **Research from other assessments or studies:** Existing assessments or research studies may contain relevant likelihood estimates, or data from which estimates can be generated or extrapolated.
5. **Professional judgment:** When none of the other approaches are possible, the professional judgment of staff and stakeholders in your community can be used to estimate the likelihood of events occurring today and in the future.

Ultimately, your likelihood estimates will need to be transcribed onto a likelihood scale, like the example shown on page 10.

Below is an example likelihood assessment scale which can be tailored to your community needs and existing risk management systems.

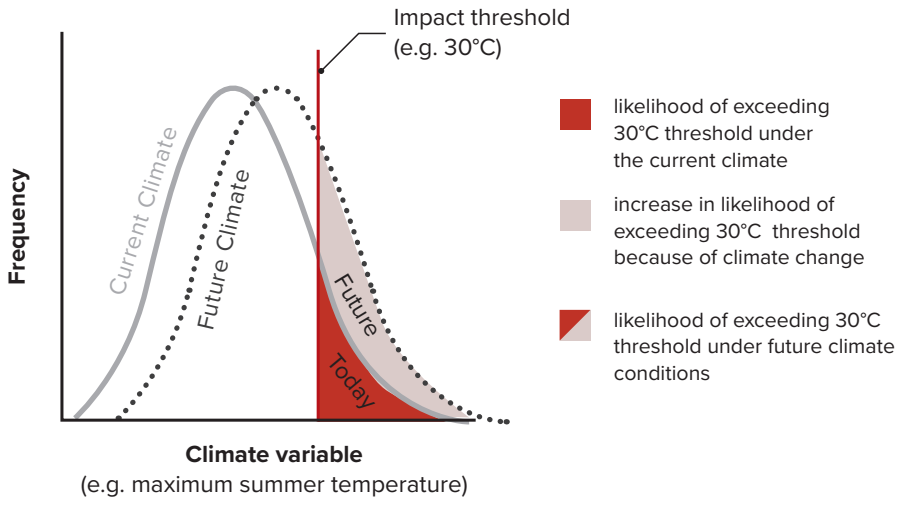
Score	Descriptor	Recurring climate events	Single climate events
1	Rare	Annual probability <1% (Less than 1:100-year event)	Event is almost certain not to occur (probability < 1%)
2	Unlikely	Annual probability 1 – 2% (1:50 to 1:100 year event)	Event is not anticipated to occur (1% - 33% probability)
3	Possible	Annual probability 2 - 10% (1:5 to 1:50 year event)	Event is just as likely as not to occur (33% - 66% probability)
4	Likely	Annual probability 10-50% (1:1 to 1:5 year event or less)	Event is expected to occur (66% - 99% probability)
5	Almost Certain	Annual probability > 50% (once every two years or more)	Event is virtually certain to occur (probability > 99%)

Your climate impact statements will likely include a mix of recurring (or discrete) events and single (or chronic) events. The likelihood scoring scale needs to allow for the assessment of both types of impacts.

Recurring events are those with the potential to happen (return) multiple times over a given time frame, such as severe storms, flooding and heat waves. Climate change may affect the frequency, intensity and duration of these events.

Single events, in contrast, occur when a specific threshold is reached in the future as a result of ongoing, gradual shifts in the climate. For example, the loss of a species, an irreversible shift in an Ecoregion, the permanent loss of a winter recreation opportunity (like outdoor skating), or a change in streamflow timing of the temperature of a water body.

The figure below shows how climate change can increase the likelihood of some climate events, such as extreme heat, occurring in the future.



To continue the risk and opportunity assessment process, the next step is to analyze the severity of potential consequences listed in each impact statement. Similar to likelihood, consequences can be assessed using a five-point rating scale, which differentiates between insignificant and extreme consequences for your community. Ideally, you should assess ('score') the severity of consequences anticipated to result from a climate impact event for each of the following dimensions:

- **Public health & safety:** Fatalities, injuries, disease, and hospitalization, as well as impacts on mental health and emotional well-being.
- **Social function:** Temporary or permanent displacement, disruption to community cohesion, exacerbation of inequalities, impacts to cultural resources.
- **Buildings and infrastructure:** Damage to buildings, equipment, vehicles and infrastructure, and loss of services such as transportation, water, energy, etc.
- **Economic vitality:** Disruption or loss of ability to produce, consume and trade goods and services, and to generate income and support livelihoods.
- **Natural environment:** Impacts to land, water, air, plants and animals, and the provision of ecosystem services.
- **City services and operations:** Impacts to the City's reputation, ability to deliver services without interruption, and operating and capital budgets, including contingency reserves.

An example consequence rating scale for one of these dimensions - "public health and safety - is shown below. Scales used to assess consequences should be tailored to the size of the municipality and existing risk management practices.

Score	Descriptor	Description
1	Insignificant	No directly related deaths, injuries, illnesses, or diseases.
2	Minor	
3	Moderate	No directly related deaths, 5-10 people injured or experiencing illness, some requiring hospital treatment. Moderate, temporary feelings of fear and anxiety.
4	Major	
5	Extreme	5 or more directly related deaths, and/or 100 or more people injured or experiencing illness, many seriously and requiring hospital treatment. Widespread and severe disturbance resulting in chronic psychological effects.

Assess consequences

The assessment of consequences should be conducted using a participatory approach that draws upon the expertise of municipal staff and local stakeholders in your community.

At this point, you may also want to engage community members in the process, possibly through a survey or similar tool, to better understand community priorities.

The goal is to assign a consequence score, usually a numerical value from 1 to 5, to to all consequences listed in the impact statements.

Taking a precautionary approach, the overall consequence score assigned to a climate impact event should be based on the maximum score across all consequences categories.

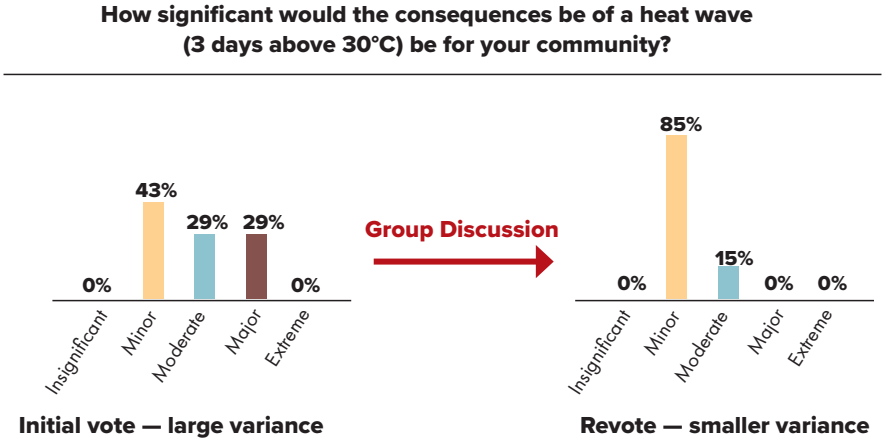
The consequence assessment should consider your community's current vulnerabilities.

What key assets are exposed to climate hazards? How sensitive are community activities, assets and services to changes in climate and changes in climate hazards? What risk management measures are currently in place? What is your community's ability to adjust, or take advantage of changes in climate and changes in climate hazards?

Assess consequences

The consequence assessment is often completed through a facilitated workshop process with City staff and key stakeholders. There are many techniques available to help staff and stakeholders score the severity of consequences of each climate impact statement. One approach is to use voting software. This method of engagement involves an evaluation exercise (voting) combined with facilitated dialogue that encourages the sharing of expertise and perspectives to stimulate deeper analysis of climate change impacts. Voting software records the scores assigned to each impact statement and allows participants to view the collective results in real-time. In cases where an initial vote produces a large variance in scores, group discussion can be used to help reach consensus. For example, one or more participants may have expertise they can share about severity of historic climate events the vulnerability (sensitivity) of community, assets, or the presence of vulnerable populations in the community. The digital voting approach is effective in both achieving alignment on consequence scores, and more importantly, a shared understanding of local climate risks and priorities.

Example of achieving alignment in a climate change risk assessment through digital voting and discussion:



Evaluate risk and opportunities

Results of the consequence and likelihood assessments are combined at this stage to generate an overall risk rating for each climate impact event. You can present the results in the form of a risk rating matrix, like that shown on page 7, or as a total risk score out of 25 (calculated by multiplying the consequence and likelihood scores). This information can then be used to differentiate between low, medium and high climate risks or opportunities, and hence acceptable and unacceptable risks for your community.

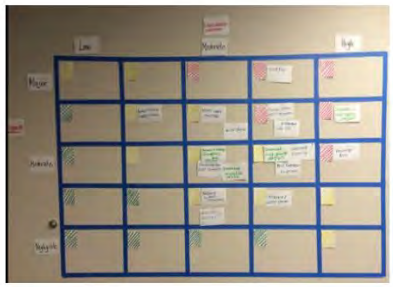
The table below provides an example of action planning thresholds that can be used to determine which risks and opportunities are prioritized for action planning and ultimately to help prioritize where to focus effort during the action planning step.

Example action planning thresholds

Risk matrix	Risk rating score	Action planning
Highest risk	>20	Actions must be developed as part of action planning
Medium risk	15 –20	Actions should be developed as part of action planning
Low risk	10 – 14	Actions could be developed, particularly where low-cost options are available that provide other social, economic or environmental benefits
Acceptable risk	<10	No action required, beyond consideration as part of regular reviews

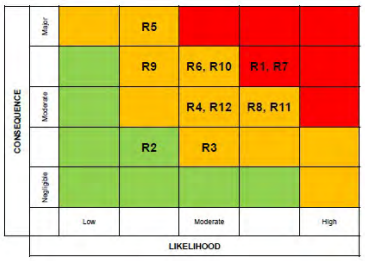
Once you have determined an initial set of priorities for the action planning step, you should evaluate the rankings with staff and stakeholders and make any adjustments as necessary. You might adjust the priority assigned to a specific risk or opportunity because a strong argument is made that it has been either over- or under-estimated, or to align your recommendations for action planning with an upcoming review of a strategic plan or a funding opportunity.

Options for generating a risk or opportunity matrix at a workshop to visualize the results of the consequence and likelihood assessment, and support the evaluation process, are shown below. (examples from the Climate Resilience Express process, 2015-2018).



1. Use tape to draw the matrix on a large wall

2. Draw the matrix on a large sheet of paper or cardboard



3. Draw the matrix digitally and project it on a screen

Step 3

Action plan

Step 3 in the Climate Resilience Express planning process where actions to address priority risks and opportunities are identified, evaluated and prioritized. This involves:

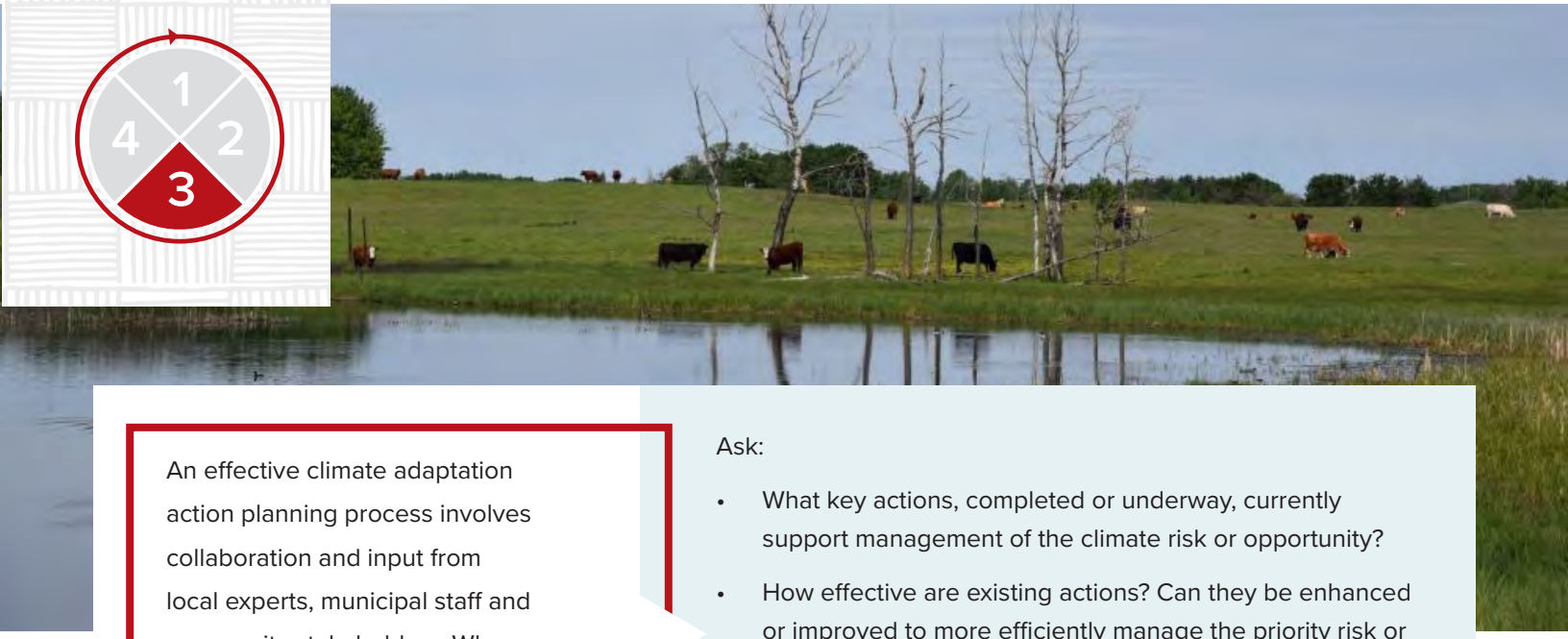
1. **Identifying actions** to reduce or avoid the harmful consequences of priority climate risks or to capture the benefits presented by priority climate opportunities
2. **Evaluating actions** against key decision criteria to help determine priorities for implementation
3. **Characterizing priority actions** and developing implementation plans, including information on estimated costs, timelines, the implementation lead(s) and partners

To provide structure to the action planning process, it is helpful to organize your priority climate impacts around 'themes', with accompanying goals and objectives. Adaptation actions can then be developed around each theme and to achieve your goals and objectives.

What is a climate adaptation action?

Climate adaptation actions take many different shapes and forms, and will include things your community currently does. Here are some examples of actions that could be implemented in your community to address climate risk and opportunities:

- **Conduct research**, if you don't have enough information about the nature of a risk, or the potential costs and benefits of actions to make robust decisions
- **Update or develop new policies, plans, or bylaws** that embed considerations of climate-related risks and opportunities and corresponding actions
- **Modify operations and/or maintenance** schedules, for example, increasing the frequency of storm drain cleanouts, enhanced tree management, or water leak detection
- **Build new or upgrade existing infrastructure,** to provide protection against climate risks, for example, flood prevention, erosion control structures, permeable roads and sidewalks to retain water, or a wetland restoration
- **Increase awareness and education** to help your community better understand (and visualize) risks and adaptation actions
- **Emergency management** measures such as response and evacuation planning, hazard mapping, and early warning or alert systems
- **Human resourcing** options, for example dedicating additional staff time to climate adaptation planning and implementation, establishing a task force or committee, or hiring an expert



An effective climate adaptation action planning process involves collaboration and input from local experts, municipal staff and community stakeholders. When brainstorming actions consider the full list of options outlined on Page 14.

Ask:

- What key actions, completed or underway, currently support management of the climate risk or opportunity?
- How effective are existing actions? Can they be enhanced or improved to more efficiently manage the priority risk or opportunity?
- Are there new actions needed, that your community can lead or support, to enhance community climate resilience?

Examples of actions identified to address priority climate risk and opportunities by communities who participated in the Climate Resilience Express planning process are outlined in the Table below:

Priority impact	Examples from	Proposed actions
Wildfire	Mackenzie County	• Hold tabletop exercises with partnering agencies to plan for large-scale wildfire • Update the Land Use Bylaw with FireSmart planning principles such as vegetation management and construction materials • Purchase additional firefighting equipment specific to wildland firefighting • Enhance the Municipal Emergency Plan to deal with increasing wildfire risk
River flooding	Town of Canmore	• Install backflow prevention valves in vulnerable facilities and buildings • Purchase submersible pumps for vulnerable facilities and buildings • Purchase temporary flood protection equipment • Increase public awareness by installing signage along local trails • Install a water gauge to track real-time local river flows and long-term trends • Conduct a River Flood Risk Assessment
Increase in summer tourism (opportunity)	Towns of Black Diamond and Turner Valley	• Increase the number of cultural and activity-based events offered (e.g. folk festival) • Explore opportunities to enhance summer tourism through local food sales and Agri-tourism • Invest in facilities and infrastructure for tourists such as parking, washrooms and new attractions

Depending on the diversity of identified climate resilience actions, consideration could be given to forming a working group of municipal staff and external stakeholders to oversee implementation of the Action Plan. This group could coordinate the ongoing selection and implementation of actions.

Action plan

It is unlikely that you will be able to implement all potential adaptation actions, due to staff and financial constraints and/or competing priorities. As a result, it is necessary to evaluate and prioritize actions to identify those that will perform best with respect to key decision criteria. This can be done using a simplified analysis of the potential costs and benefits of each action, as shown in the table below, or based on a full quantitative cost-benefit analysis.

On the cost side, in addition to any required capital expenditures and ongoing annual expenses, you should also consider the potential for negative side-effects, for example increasing greenhouse gas emissions or negatively impacting wildlife habitat. Feasibility considers action is possible, given technological, legal and/or economic constraints, and acceptability is about whether the public/City Council would accept and implement the action.

On the benefit side, the effectiveness of the action in achieving your adaptation goals is clearly important. But it is also important to consider equity, and whether the action helps under-served and marginalized groups in the community. To help manage uncertainty about future levels of climate change, a higher priority should be given to actions that offer greater flexibility to modify, or scale-up or down over time. Finally, the potential for the action to generate co-benefits for the community in addition to reducing risk, should be considered.

The performance of each adaptation action with respect to each of these decision criteria can be scored by staff and stakeholders using a 5-point scale like that shown, with the resulting total scores across all criteria used to rank and prioritize actions for inclusion in your climate adaptation action plan.

Costs	1	2	3	4	5
Lifecycle costs	Low		Moderate		High
Negative side-effects	Negligible		Moderate		Major
Feasibility	High		Moderate		Low
Acceptability	High		Moderate		Low
Benefits					
Effectiveness	Low		Moderate		High
Equity	Poor		Neutral		Good
Flexibility	Low		Moderate		High
Co-benefits	Negligible		Moderate		Major

Examples of co-benefits that may be considered in the evaluation process:

- Reduces inequalities
- Improves water retention
- Improves water and/or energy efficiency
- Improves air and/or water quality
- Improves community livability
- Enhances recreation opportunities
- Increases economic output and supports jobs
- Improves biodiversity

A **Climate Adaptation Action Plan** documents the actions a community plans to implement in order to manage priority risks and opportunities posed by climate change. It also describes the process of arriving at the recommended actions, provides all materials used to support the decision-making process, and outlines how, when and by whom actions will be implemented.

Once priority actions have been identified, you can build your community's climate adaptation plan by compiling information to support implementation. In general, you will find that a number of actions in your Action Plan can be implemented quickly with minimal investment, whereas other actions will have longer-term timelines, require a higher level of investment, and may require a more detailed implementation strategy with dedicated budgets and new funding sources, timelines and milestones for specific activities, and defined roles and responsibilities for specific stakeholders and groups.

An implementation plan can include, for each priority action, information about:

- the **type of action**, for example, whether it is a program, plan, policy, project, partnership, etc.
- the **timeline** to have the action implemented or initiated, whether in the short-, medium-, or long-term
- **total implementation costs**, estimated in dollar values ranging from low to high
- the **lead** agency or organization that will be responsible for ensuring the action is implemented
- other **partners** or stakeholder required to support action implementation, both within your community and externally

Between 2015 and 2018, All One Sky Foundation and the Municipal Climate Change Action Centre partnered to deliver phase 1 and phase 2 of the Climate Resilience Express program. The program developed Climate Resilience Action Plans for 13 communities in Alberta, as well as development of the Climate Resilience Express Action Kit - a detailed how-to guide for municipal climate adaptation planning. Click on the community links below to view their Action Plans.

- Lacombe County
- City of Spruce Grove
- Town of Bruderheim
- Town of Banff
- Brazeau County
- Big Lakes County
- Towns of Black Diamond & Turner Valley
- Town of Canmore
- Town of Sylvan Lake
- Beaver County
- Mackenzie County
- Town of Okotoks
- Beaver Hills Biosphere

Step 4

Implement

Once your climate adaptation plan is complete, the real work begins – implementation! Some key considerations as you prepare for implementation and moving forward with making your community climate resilient are outlined below.

An important aspect of implementation is 'mainstreaming' – integrating climate resilience, as a matter of routine, into your community strategies, plans, policies, programs, projects, and administrative processes. This includes, for example: land use and development decisions; administrative processes such as bids, tendering and contracts for planning and development work; strategic plans (e.g., the Municipal Development Plan) and neighborhood scale plans; and decisions related to the design, maintenance, and upgrading of long-life infrastructure and assets.

Your Climate Adaptation Action Plan should be evaluated regularly—at least every 5 years—to ensure it remains effective and relevant. The evaluation should consider:

- Lessons learned from the implementation of actions, both in terms of whether actions have been implemented as intended and the effectiveness of implemented actions in achieving the intended results.
- New research and scientific information on climate projections and impacts, which may affect the understanding of risks and opportunities facing the community.
- Changes to community goals, or changes to social, economic or environmental conditions, which likewise may affect the understanding of risks and opportunities facing the community.

Keeping your Action Plan relevant may only involve a few minor adjustments, but more than likely will require revisiting some of the steps in the planning process and preparing an updated Action Plan.

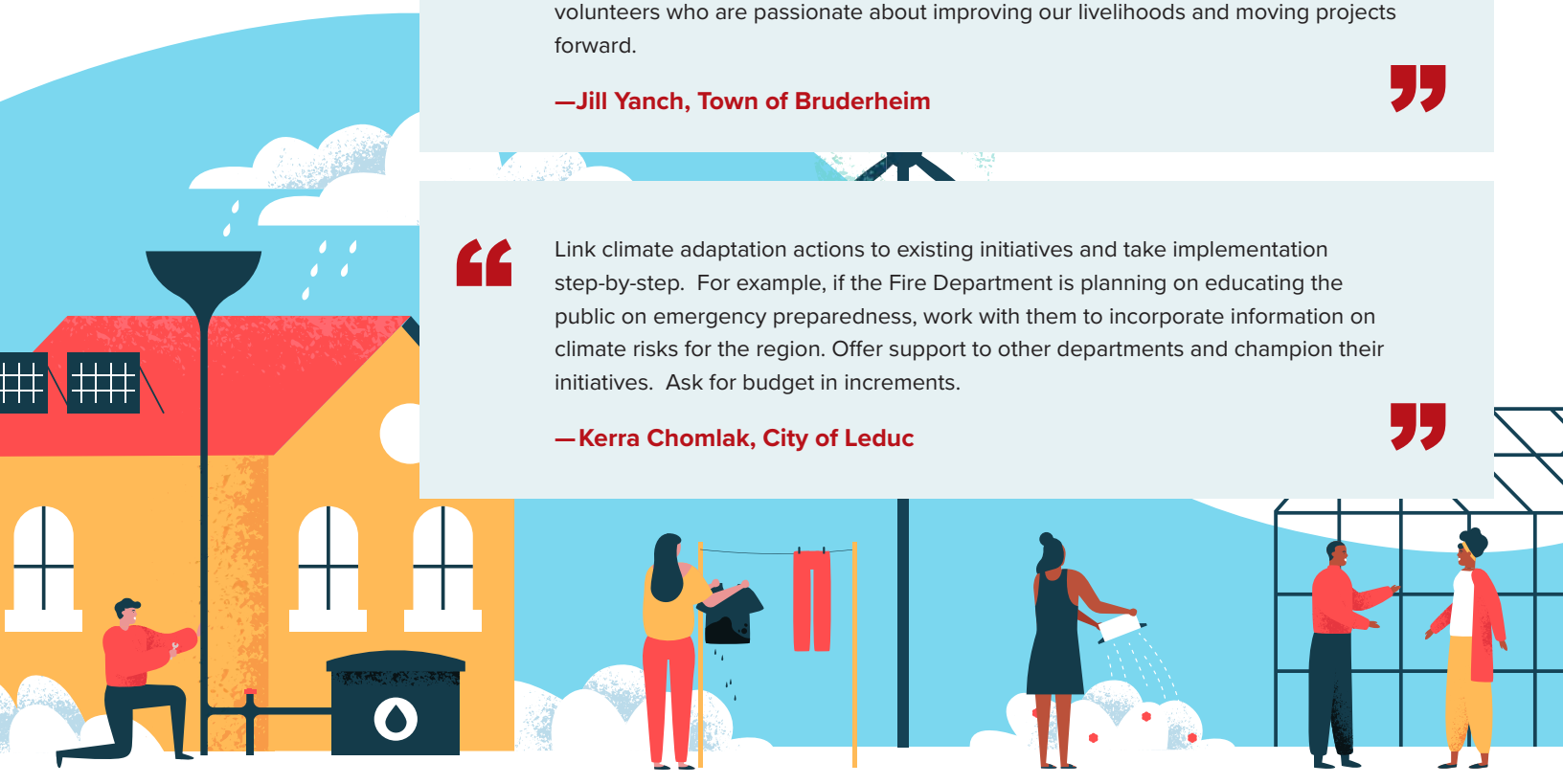
What are the keys to a successful adaptation planning process and implementation? Take some advice from municipal climate resilience leaders across Alberta:

> The climate change risk assessment process gave us a clear understanding of our climate change impact priorities. We used the results to guide our climate adaptation planning and to evaluate and prioritize the most effective climate resilience measures for our community. Since completing the Plan in 2016 we have been working on major steep creek flood hazard mitigation and community FireSmarting.
>
> **—Amy Fournier, Town of Canmore**

> An important priority for us was to ensure our community was engaged and informed throughout the process. We conducted several community surveys, hosted a virtual town hall meeting, and worked with community groups and schools to capture a range of perspectives. Specific efforts were made to connect with youth and our most vulnerable residents to ensure their feedback was taken into account in the development of the action plan. Effective community engagement is key to success and ensuring we develop and implement a just and equitable plan.
>
> **—Caitlin Van Gaal, City of Spruce Grove**

> As a small rural community, we've found success by partnering with other small communities in our region through the Resilient Rurals project. We are sharing resources and collaborating on regional climate adaptation and resilience initiatives. Particularly for rural communities, success requires a strong local champion and volunteers who are passionate about improving our livelihoods and moving projects forward.
>
> **—Jill Yanch, Town of Bruderheim**

> Link climate adaptation actions to existing initiatives and take implementation step-by-step. For example, if the Fire Department is planning on educating the public on emergency preparedness, work with them to incorporate information on climate risks for the region. Offer support to other departments and champion their initiatives. Ask for budget in increments.
>
> **—Kerra Chomlak, City of Leduc**



All One Sky
FOUNDATION

ALL ONE SKY FOUNDATION is a not-for-profit, charitable organization established to help vulnerable populations at the crossroads of energy and climate change. We do this through education, research and community-led programs, focusing our efforts on adaptation to climate change and energy poverty. Our vision is a society in which ALL people can afford the energy they require to live in warm, comfortable homes, in communities that are resilient and adaptive to a changing climate.

Our Work

CLIMATE ADAPTATION AND RESILIENCE

Our climate is changing and will continue to do so for the foreseeable future. How do we prepare for impacts on our infrastructure, public services, economic activity, environment and quality of life? We can work with your community or organization to minimize harm from these changes, take advantage of beneficial opportunities, and help you anticipate and prepare for the impacts of climate change.

ENERGY POVERTY

Energy poverty is a cross- cutting policy issue, with implications for general poverty alleviation, health and social well-being, housing and climate change strategies. Our work focuses on researching the extent, causes and impacts of energy poverty, convening stakeholders to discuss barriers to action and solutions, and designing projects and programs to address the issue.

ECONOMICS OF CLIMATE CHANGE

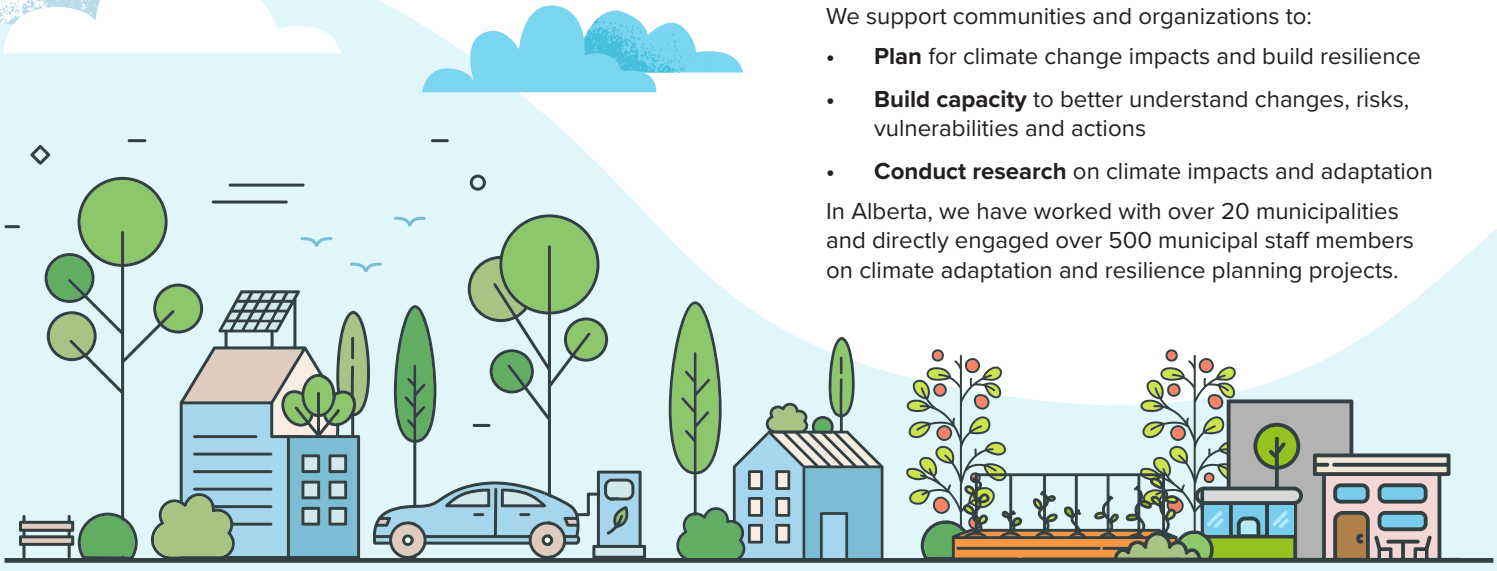
Information on the economic impacts of climate change, and the costs and benefits of alternative courses of action, is increasingly required by decision-makers. Our work focuses on generating economic information and tools to help make the case to invest in climate mitigation and adaptation, and to inform the selection, timing and level of investment in specific actions.

Our Experience

We support communities and organizations to:

- **Plan** for climate change impacts and build resilience
- **Build capacity** to better understand changes, risks, vulnerabilities and actions
- **Conduct research** on climate impacts and adaptation

In Alberta, we have worked with over 20 municipalities and directly engaged over 500 municipal staff members on climate adaptation and resilience planning projects.



EMPOWERING CHANGE.

The Municipal Climate Change Action Centre (Action Centre) was founded in 2009 as a collaborative initiative of Alberta Municipalities, Rural Municipalities of Alberta, and the Government of Alberta.

The Action Centre delivers funding, technical assistance, and education to help Alberta municipalities, school authorities, and community related organizations advance actions that lower energy costs, reduce greenhouse gas emissions, and improve climate resilience.

In October 2020, the Government of Alberta announced the allocation of $4.5 million to the Action Centre to develop and administer the Climate Adaptation Program. The Climate Adaptation Program enhances the ability of Alberta municipalities and Indigenous communities to prepare for and respond to climate-related risks.

Through the Climate Adaptation Program, the Action Centre provided funding for the development of the Climate Resilience Express Planning Guide, in partnership with All One Sky Foundation.

This update to the Climate Resilience Express resources was made to reflect the significant advances in access to climate information now available to support adaptation planning, and new international standards published for climate vulnerability, impacts and risk assessments, and adaptation planning for local governments.

Visit **mccac.ca** to learn more.

Real savings. Real change.

Municipal Climate Change Action Centre

Alberta Municipalities Strength In Members

RMA Rural Municipalities of Alberta

Alberta

MOTION ACTION LIST

SHORT TITLE	REQUESTED (DATE)	RESPONSIBLE (WHO)	COUNCIL MOTION (DESCRIPTION)	TARGET (DATE)	STATUS
Transit Capital Projects	**December 19, 2023**	**CAO**	That Council direct Administration to return to a future Council meeting for approval prior to awarding or procuring any transit capital projects.	**August 2024**	
Climate Change Adaptation Action Plan	**February 27, 2024**	**CAO**	That Committee direct Administration to return to a future Committee meeting with recommendations on developing a Climate Change Adaptation Action Plan.	**August 2024**	
Jasper Skatepark Committee	**March 19, 2024**	**CAO and Director of Finance & Administration**	That Council authorize, in principle, interim financing to the Jasper Skatepark Committee, not to exceed $150,000, with loan details to be presented to Council following completion of the Skatepark construction.	**October 2024**	
Clean Energy Improvement Program	**July 9, 2024**	**CAO and Energy & Environment Manager**	That Council, establish 1:30pm, September 3, 2024 at Council Chambers as the date time and location for a public hearing on the proposed Clean Energy Improvement Program Tax Bylaw.	**September 2024**	July 16, Regular 1st reading
Moving Traffic Enforcement	**July 9, 2024**	**Director of Protective & Legislative Services**	That Committee direct Administration to return to a future Committee of the Whole meeting with additional information on moving traffic enforcement, including the proposed scope of work and an outline of anticipated equipment requirements.	**October 2024**	
Financial Relief Recommendations	**August 13, 2024**	**CAO and Director of Finance & Administration**	That Council direct Administration to return with a report outlining the options and cost associated with refunding property taxes for the period following July 22, 2024 on damaged or destroyed properties.	**September 2024**	

			That Council direct Administration to return with a report recommending options or strategies to mitigate the municipality's loss of utility and property tax revenue.		
Recovery Office Structure and Committee Terms of Reference	**August 13, 2024**	**CAO**	That Council direct Administration to develop draft Governance and organizational structures for a Recovery Office and a Terms of Reference for a Recovery Committee and return to a future Council meeting.	**September 2024**	
Council Remuneration Review	**August 20, 2024**	**CAO**	That Council direct Administration to conduct a review of council remuneration and present recommendations at a future meeting.	**September 2024**	