

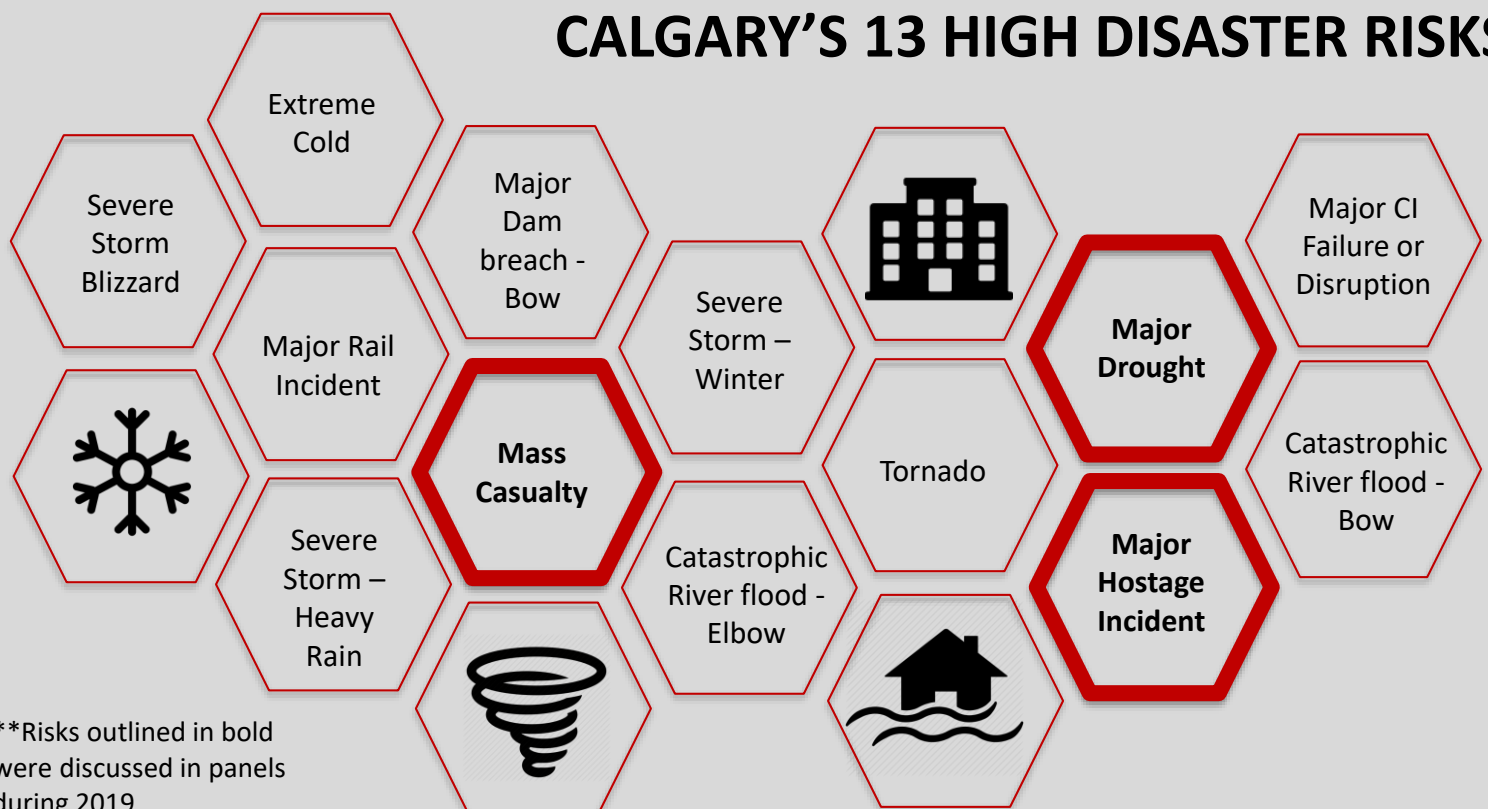
Calgary



# COMMUNITY SERVICES BRIEFING TO SPC ON COMMUNITY AND PROTECTIVE SERVICES

## Attachment 1 to Briefing CPS2019-1572 2019 Status of Emergency Preparedness in Calgary

### CALGARY'S 13 HIGH DISASTER RISKS



\*\*Risks outlined in bold  
were discussed in panels  
during 2019



**“BY FAILING TO PREPARE, YOU ARE PREPARING TO FAIL”**

**Benjamin Franklin**

The Sendai framework for Disaster Risk Reduction 2015-2030 outlines clear targets and priorities for action to prevent new and reduce existing disaster risks. It aims to achieve the substantial reduction of disaster risk and losses in lives, livelihood and health by 2030.

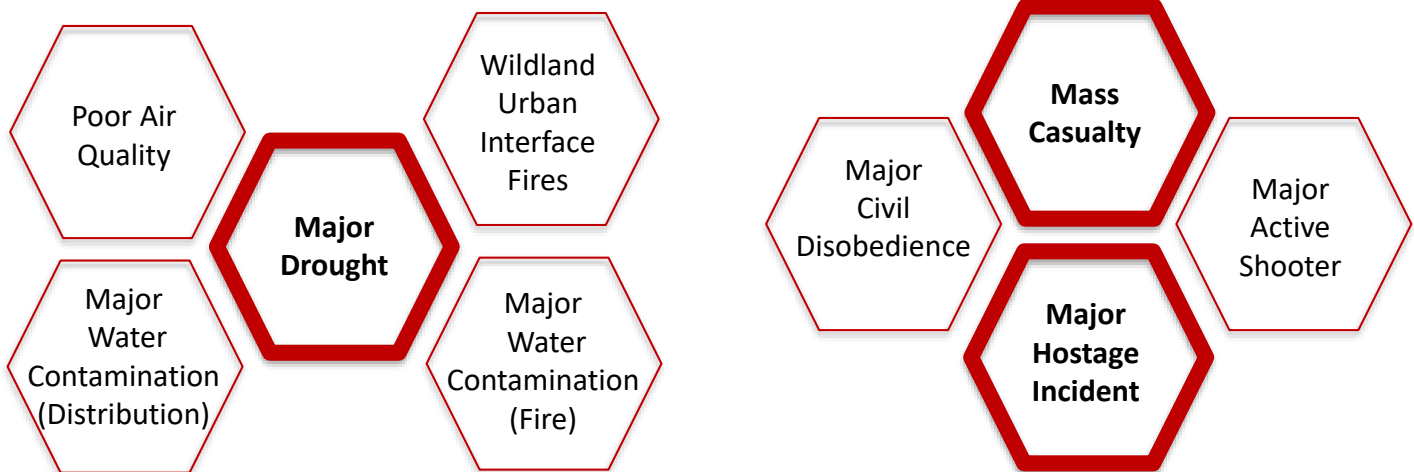
The 2018 Disaster Risk Assessment is a foundational process that provides the Calgary Emergency Management Agency (CEMA) with an in-depth analysis of Calgary's disaster risk environment. CEMA shares this information with key stakeholders such as internal City of Calgary business units, first response agencies, utility companies, community service providers, not-for-profits, the business community and others to assist in the development of risk mitigation plans and to inform other preparedness measures that aim to collectively reduce the future risk of these disasters and allow for a better response.

The Disaster Risk Assessment forms the road map for all hazard planning and guides the activities of CEMA through the business cycle. The high risk disaster events outlined in the assessment help to focus our efforts while allowing the needed flexibility to monitor emerging threats and risks that are trending upwards in real-time.

One of the primary public communication tools to share this information is the Disaster Risk Explorer (DRE) on [calgary.ca/getready](http://calgary.ca/getready). It is designed to provide Calgarians with an in-depth review of the disasters that potentially pose the greatest threat to Calgary, inspiring Calgarians to take prevention, preparedness and mitigation actions.

Through an interactive, story-based platform, stakeholders are taken on a journey of Calgary's risks. They learn about each risk, including historical occurrences, current mitigation measures, and most importantly what they can do to prevent, prepare, respond and recover from events.

## LINKING MEDIUM RISKS TO HIGH



## 2019 IN EXERCISES

Exercises are one of the ways to advance preparedness. Through exercises Agency members can foster collaboration, test processes & procedures, and identify remaining work.

In 2019 Agency members participated in:

- An Emergency Operations Centre (EOC) exercise focused on **Tornado** response
- An (EOC) exercise focused on **Police and Security threats**
- Numerous tabletops to prepare for the Calgary Stampede and the Stampede parade
- Numerous tabletops to prepare for hosting the 2019 Grey Cup
- A reception centre exercise to advance Emergency Social Services
- Numerous Business Continuity exercises
- Numerous Disaster exercises with Canada Task Force 2

At the 2019 May 8 meeting of the Emergency Management Committee of Council, a panel of Agency members detailed the risk analysis and preparedness related to drought (high risk), wildland fires (medium risk), and poor air quality (medium risk).

## DROUGHT

### Drought

Environment and Climate Change Canada defines drought as a sustained and regionally extensive occurrence of appreciably below-average natural water availability in the form of precipitation, streamflow, or groundwater. The impacts of a drought can be long and severe, stressing every type of environment including wetlands, wildlife and urban forests; parks and open spaces; and low river flows resulting in damage to aquatic ecosystems. Given certain conditions the impacts can lead to the closure of facilities, business interruptions, and development.



Drought is uniquely challenging since the recognition of onset can be slow and the duration is unknown, affecting everyone and every aspect of our society.

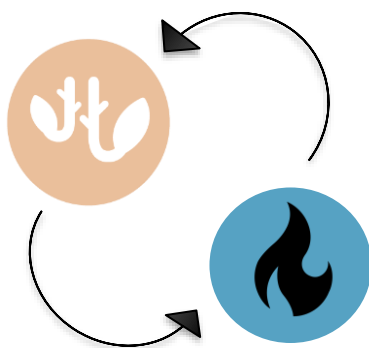
The City of Calgary manages drought response in a number of ways:

1. An established drought monitoring team and early warning system with escalating phases to co-ordinate operational response and communication.
2. Building long term resiliency.
3. Conserving water through various programs.



## WILDLAND FIRE AND POOR AIR QUALITY

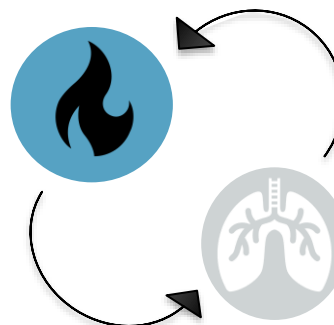
### Drought to Wildfire



A secondary risk to drought is wildland fire behavior. Fire can be fueled by vegetation and surface fuels such as grass, trees, deadfall and shrubs.

Fires within a given distance could spread into adjacent communities leading to evacuations, power outages, road closures, infrastructure impacts, and structural fire damages. Fires can also affect Calgary's watershed and potable water supply.

### Wildfire to Poor Air Quality



Wildland fire adjacent to the city of Calgary can significantly decrease our air quality.

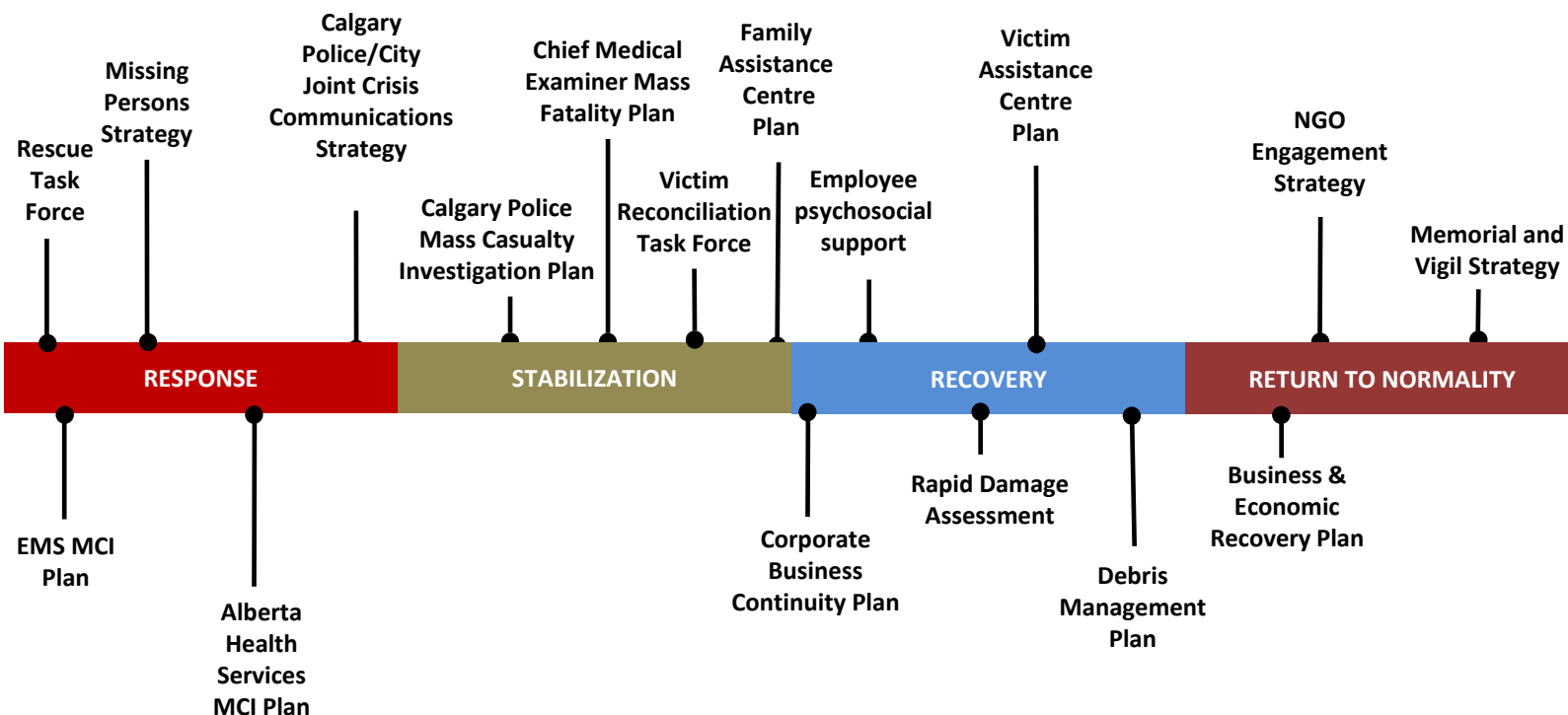
Exposure to this can aggravate the health of individuals with compromising medical conditions. Urban wildfire has the potential to impact our natural areas and built environment.



# A FOCUS ON RISK: POLICE AND SECURITY THREATS

At the 2019 October 9 meeting of the Emergency Management Committee of Council, a panel of Agency members detailed the risk analysis and preparedness related to the risks of major hostage incidents (high risk), major mass casualty attacks (high risk), major active shooter incidents (medium risk) and major instances of civil disobedience (medium risk).

## MAJOR MASS CASUALTY



## DETERMINING LIKELIHOOD SCORING FOR POLICE AND SECURITY THREATS

Determining the likelihood of major disaster scenarios involving human actor(s) with malicious intent is very different from other threats/hazards (e.g. weather events). When quantitative data is not available, the likelihood is estimated by qualitative judgement of subject matter experts, while considering the overall capacity of the malicious actor(s) carrying out the threat.



Police and security threat ratings are not necessarily based on any specific intelligence.

Agency exercises are informed by the Disaster Risk Assessment. 2019 October's Agency exercise was focused on an Active Assailant scenario.





## CANADA TASK FORCE 2 - THE CHUCKEGG WILDFIRE, NORTHERN ALBERTA

## REGIONAL RESILIENCE



The town of High Level and Mackenzie County in Northwest Alberta were heavily impacted by a wildfire starting on May 12, 2019. The fire resulted in a State of Local Emergency and evacuation of many communities in the area. Canada Task Force 2 (CAN-TF2) was deployed to assist on May 20<sup>th</sup> and supported the operations for 30 days.

CAN-TF2 is a division of CEMA and is one of six nationally recognized Heavy Urban Search and Rescue (HUSAR) teams in Canada. The team is comprised of over 150 members including Doctors, Paramedics, Structural Engineers, Canine & Technical Searchers, Command Staff and Specialists in the fields of Rescue, Logistics and Communications. Members volunteer their time to train

and prepare to handle a wide variety of demanding disaster and rescue situations.

CAN-TF2 members have strengthened their capacity to respond, increased their operational experience and continue to provide an incredible value proposition for stakeholders. The sustainment of trained and qualified staff during response is unparalleled in Canada.

CANTF2 is a critical link in bolstering the capacity of The City of Calgary and fostering the resilience of the province. Team members participate in state-of-the-art training, learn from a variety of incidents and develop relationships across the emergency response field, all of which contribute to a stronger Calgary, Alberta and Canada response.

## SUPPORT BY THE NUMBERS

193

PERSON DAYS

of support to the operation

29

TEAM MEMBERS

deployed

10

EMPLOYERS

deployed CAN-TF2 team members

6

BUSINESS UNITS

deployed staff, as members  
of CAN-TF2

Chuckegg Wildfire Unified Command Team

## LESSONS

Emergency events provide great opportunities to test, tweak and advance our plans, processes and programs. The Chuckegg wildfire reinforced the importance of building relationships, outlining roles and responsibilities and communicating prior to emergencies occurring.

Success is dependent on the inclusion of relevant stakeholders, with autonomy over their respective organizations.



# CONTINUED WORK ON PREPAREDNESS

## EMPOWERING THE COMMUNITY – READY CALGARY AND READY SQUAD



To empower the community, advance preparedness and increase our resiliency, CEMA continues to develop easy, engaging programming for citizens.

Children are more physically and emotionally vulnerable to disasters than adults. The current best practice in preparing children for disasters is to educate them in advance of an event so they understand what to expect during an emergency and have the necessary skills to stay safe. It strengthens the resilience of children by raising their awareness of hazards and teaching them protective actions that will reduce their potential trauma.

Ready Squad launched in October and is aimed at kids aged 7-12. In addition, children are great messengers and will continue to spread preparedness information to their friends, family and other members of the community.

## DROUGHT – CONTINUED WORK ON PREPAREDNESS

### Collaboration & Partnerships



- Continue engagement with our watershed partners
- Continue to foster strong partnerships among agency members
- Incorporate climate change & resilience initiatives
- Address and mitigate watershed risks
- Continue to advance our relationship with AB wildfire

### Advocacy



- Continue to focus on upstream mitigation on the Bow and Elbow rivers
- Critical infrastructure design for resilience
- Encourage FireSmart programs

### Communication



- Continue to communicate risk to members of the public and agency stakeholders
- Build on current FireSmart initiatives
- Develop and communicate The City of Calgary Drought Management Plan

### Continued Learning



- Incorporate lessons from emerging events around the world
- Understand the Corporate Business Impact analysis and the impact to services
- Incorporate lessons from CAN-TF2 response to Northern Alberta fires

## POLICE AND SECURITY RISKS – CONTINUED WORK ON PREPAREDNESS

### Focus on Planning



- Changing threats require agile plans and organizations
- Current plans within our organizations continue to be strengthened
- Collaboration among stakeholders is excellent
- Continues to deliver Incident Command System training on interoperability

### Clarity of Role



- In human caused incidents, CEMA's role is in support of law enforcement-lead response
- Investigation of terrorist attacks fall within RCMP jurisdiction, highlighting the importance of intergovernmental response

### Coordination & Collaboration



- The response to this type of risk is complicated. The solution is an interconnected "spider web" of agencies, plans, processes and partners
- Collaboration while maintaining the autonomy of stakeholder is critical to continued success



# THE CHANGING TRENDS

An upward trend in disaster losses has continued since the 1980's and can largely be attributed to the concentration of assets, economies, people, trade, capital, and wealth within high-risk urban environments. Climate change is expected to act as a risk multiplier by increasing the frequency, variability and intensity of hazards.

**Through unique challenges and a changing landscape, preparedness is always adapting**

## THE SOLUTION IS A PUZZLE

The complexity of the planning process, requirements of response and expectations of the public require multiple stakeholders with clear roles and responsibilities to participate.

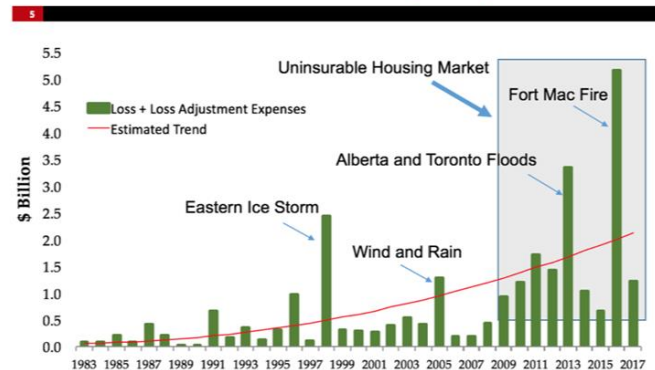


No one organization can do it alone. We are all a part of the response and solution.

## INCREASING DISASTER LOSSES

**COSTS OF EXTREME WEATHER: P&C CATASTROPHIC INSURABLE LOSSES (\$CAD)**

**INTACT CENTRE**  
ON CLIMATE ADAPTATION



**\$1 : \$6**

## PREVENTION SAVES IN RECOVERY

**Every one dollar in prevention saves six dollars in recovery costs**



Events occurring around the world are challenging the public's perception of safety.

A vibrant community is one that is able to balance security, safety, community vibrancy and foster healthy business opportunities.



Organizations are dealing with incident types, complexities and intensities that haven't been experienced before.

We need to continue to push the boundaries while remaining on the leading edge.

Emergency Management experiences the interdependencies between developing situations from a unique lens. An event in a jurisdiction thousands of kilometers away can affect local services causing a "butterfly effect".



Urbanization acts as a multiplier for risks. The concentration of people, economic activity, assets, capital and critical services in large cities amplifies risk in urban settings. Urbanization increases social disparity and these societal-level impacts go beyond traditional borders into the regional, national, and global sphere.

Urban populations are getting older. Additional resources will be required to increase the resilience of this population and the infrastructure required to support them during emergency through enhanced business continuity, emergency preparedness and other risk reduction activities.



The rising hyper-connectivity of the modern world allows for access to near real-time data and information.



This is challenging our traditional definitions of community as face-to-face and place-based interactions are being replaced by digital exchanges and communications.

Canadians are increasingly vulnerable to shocks. Factors include: climate change, increasing severity and frequency of environmental disasters, income equality, rising household debt, volatile international markets, inaccessibility to insurance, shifting demographics, etc. The intersection of social, economic, cultural, built and environmental systems directly contribute to the resilience of a specific location and people.



# THE ROAD TO 2020 AND BEYOND

The best work of Emergency Management often goes unseen. While Calgarians are safely enjoying all that our city has to offer, often they don't think of all the work that has gone on behind the scenes to contribute to that atmosphere.

Enhance the effectiveness of disaster response and recovery in Calgary

Develop and retain our talent while implementing lessons

SHOCKS

Strengthen governance to manage Disaster Risk

Continue to lead and influence the Provincial and National landscape

DISASTER RESILIENCE

Continue to improve the understanding of disaster risk

Increase focus on preparedness in all sectors of society in Calgary

## A SHARED VISION

A continued shared vision across the entire agency of CEMA will:

- Increase collaboration
- Strengthen the City of Calgary
- Make Calgary a great place to do business through minimizing disruption and managing critical infrastructure
- Result in a whole community approach to resilience

## PANELS IN 2020

In 2020 CEMA will continue to explore Calgary's Disaster High Risks with panels to address:

- Critical infrastructure: failures in critical infrastructure can impact any community in Calgary.
- Tornado: Calgary is located within an area of high-risk for tornadic activity.

**A prepared and resilient community  
is a great investment**