

Calgary



# STATUS OF EMERGENCY PREPAREDNESS in Calgary



Calgary Emergency Management Agency  
May 2018

One City, One Voice

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One City, One Team:

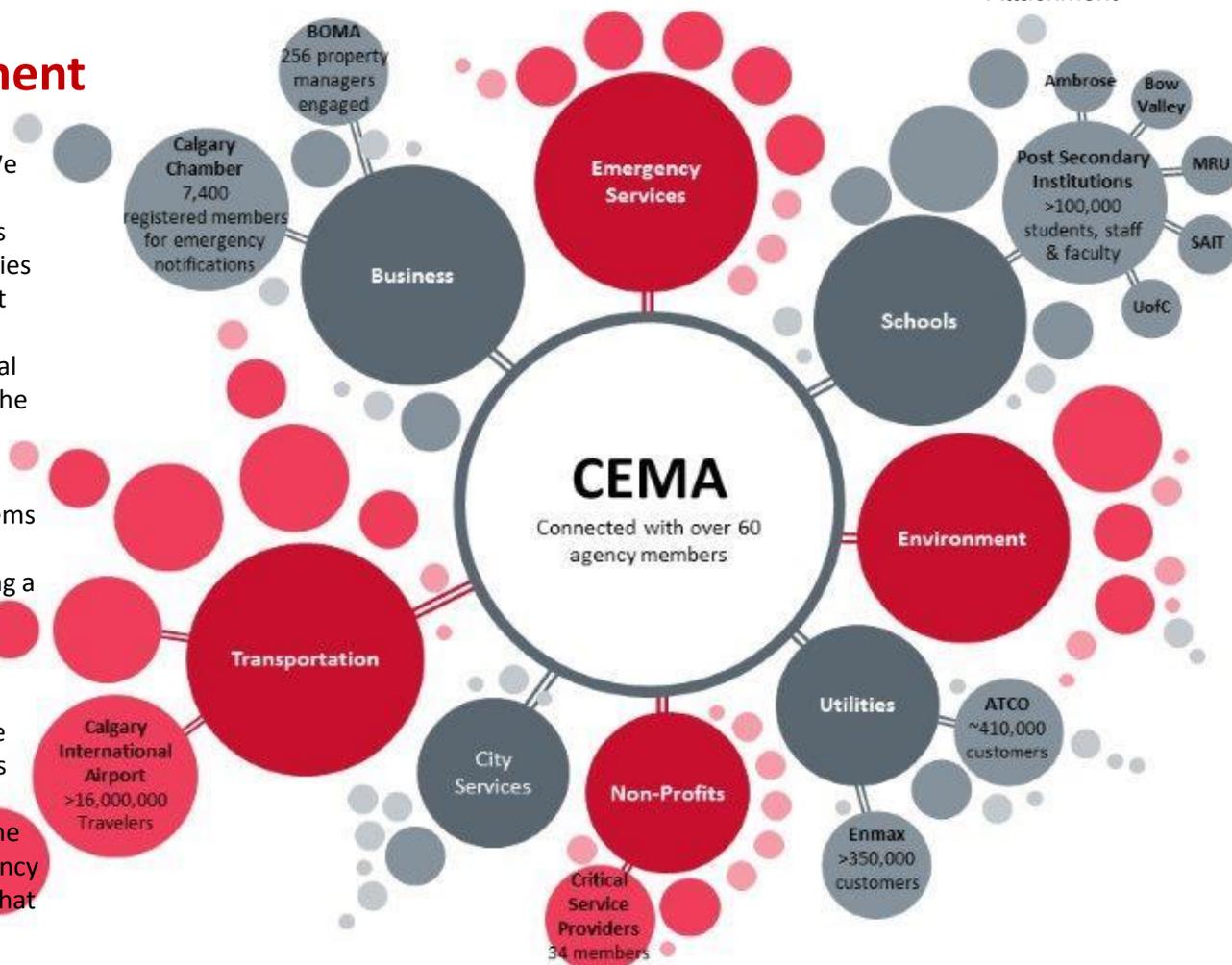
## Emergency management

The Calgary Emergency Management Agency (CEMA) is more than our staff. We are a network connecting over 60 City business units and external organizations that help The City prevent the emergencies we can and respond quickly to those that do happen. Our Agency members span eight different segments vital to the social and economic resilience of our city and the safety of our citizens.

We are a hub for The City, bringing together the right people to solve problems quickly. CEMA exemplifies the Corporation's One City vision by providing a singular, unified City response to major emergencies, disasters, and business disruptions.

In an emergency, we can quickly rally the experts and resources needed to address the problems at hand. Our Agency members can also call upon us at any time to assist them with managing an emergency impacting their business unit or service that overwhelms their resources.

Our Agency members span eight different sectors of the city and economy and touch the lives of thousands of Calgarians every day. It is through these networks we can reach out to and connect with Calgarians, visitors and businesses in any emergency.



### We are prepared

Through the work we do, our links with Agency members continue strengthen.

CEMA developed the Fundamentals of Emergency Management that was accepted province-wide as an alternative to the provincial Basic Emergency Management course.

Calgary has gone through a challenging couple of years economically, yet the training we do for our Agency members means our preparedness has not deteriorated.

## Pillars of emergency management

Response to emergencies is just one aspect of the multi-faceted work CEMA undertakes each year. We believe the value in emergency management is in our ability to manage the risks, not just the consequences, associated with hazards in our city. Each of the five pillars of emergency management are vital to creating a resilient city.

### 1 Prevention

Prevention focuses on reducing or eliminating hazards. Preventive measures are designed to provide more permanent protection from disasters; however, not all disasters can be prevented.

### 2 Mitigation

Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters and emergencies. Mitigation involves structural and non-structural measures taken to limit the impact of a disaster. It also means treating the risks to reduce the size and duration of an event.

### 3 Preparedness

Preparedness is a continuous cycle of planning, training, exercising, evaluating, and taking corrective action. Training and exercising plans is the cornerstone of preparedness which focuses on readiness to respond to all hazards.

### 4 Response

Response is comprised of the coordination and management of personnel, equipment and supplies and measures taken for life, property, critical infrastructure, and environmental safety.

### 5 Recovery

Recovery consists of activities that continue beyond the emergency period to restore critical community function and begin to manage stabilization efforts. Recovery begins immediately after the threat to human life has subsided. The goal of the recovery phase is to bring the affected area back to some degree of normalcy.

In advance of the recent spring melt, CEMA worked proactively with Water Utility, Parks, and Roads to prevent any overland flooding and drainage issues.

## Broadening how we define emergencies

Emergencies can take many forms, from local community flooding to buildings no longer safe for their occupants. CEMA has been applying the emergency management processes it has used to successfully manage major emergencies, like the Calgary floods of 2013, to other localized, smaller-scale emergencies and operational and safety crises affecting the Corporation and our Agency members.

Emergencies also include disruptions to City of Calgary service, which is why we are also the group responsible for overseeing the business continuity framework for The City.

One City, One Focus on Citizens:

## Calgary Housing Company security



Following the theft of a vehicle of a **Calgary Housing Company** contractor containing equipment capable of making keys to some housing units, the City's **Law Department** called upon CEMA to help coordinate a response to address the potential security concerns. Agency members quickly came together – including the **Calgary Police Service, RCMP** and **Customer Service & Communications** – to devise a plan to ensure the safety of residents.

Agency members worked collaboratively to identify the most immediate risks and highest priority units. Affected residents were notified through a door-to-door campaign and a multi-phased re-key plan was put in place with highest-risk units addressed first.

Shortly after opening the Emergency Operations Centre, initial planning was in place and the coordinating responsibility shifted to the Calgary Housing Company Tactical Operations Centre to manage the ongoing implementation.

### **We are prepared:**

- Our flexible, agile structure allows us to support any type of incident, from a small internal issue to a large-scale public emergency
- CEMA is prepared to coordinate response to any type of security or operational crisis
- CEMA's incident management structure is designed to facilitate rapid decision-making and planning
- Our team of planning experts are available 24 hours a day to provide coordination and leadership to cross-business unit teams during any operational, safety, or emergency event
- CEMA has around-the-clock access to experts and decision-makers in every business unit and key external organizations in Calgary

## Calgary Housing Security:

# By the numbers



**6,700**

units at more than 200 properties were impacted by the re-keying initiative. Security patrols were stepped up at some properties until units could be re-keyed.

**16**

hours from when CEMA was engaged until a response plan was developed and put into action to safeguard residents of the Calgary Housing properties.

**13**

Agency members working together through the night to develop a communications and operational plan to address the immediate safety issues.

Kensington Manor, a 7-storey apartment complex located in the heart of Calgary, is home to 125 residents and a retail business. The evening of November 23, 2017, residents and occupants had to be evacuated after a Safety Codes Officers deemed the building to be structurally unsafe.

Within a few hours of being notified, CEMA worked in partnership with **Calgary Building Services**, the **Calgary Police Service**, the **Calgary Fire Department** and the property management company to evacuate residents to awaiting **Calgary Transit** buses. Residents were accompanied back to their units to collect a few personal belongings before being taken to an information centre to determine their next steps.

### Providing a safe space to residents

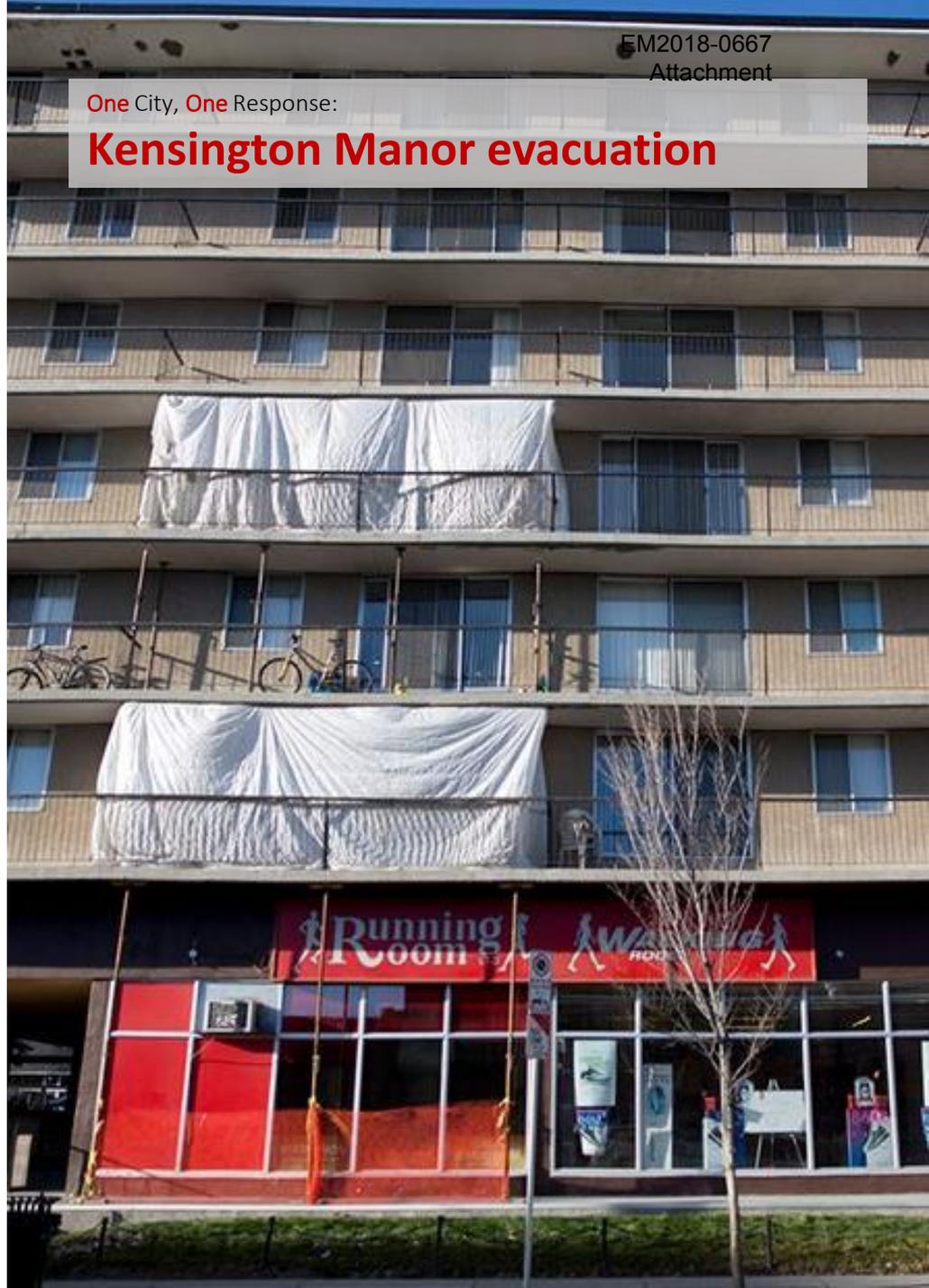
A few blocks away from the apartment building, CEMA set up an information centre to provide a quiet, safe space for residents to connect with the property management company. Here, the property management company provided building residents with access to alternate accommodations for the night and were given updates on the situation.

#### We are prepared:

- Through this incident, CEMA reinforced the importance of generating new partners with every event
- CEMA helps to support and guide problem solving, including making timely decisions
- CEMA also reinforced the importance of working with building owners and operators to advance business continuity

One City, One Response:

## Kensington Manor evacuation



**We are prepared:**

- CEMA has a goal of being able to lodge 1% of Calgary's population in the event of a large disaster
- With the South Central region, our Emergency Social Services work closely together to provide better service to evacuees
- Signing of the Alberta South Central Mutual Aid Agreement makes all 26 signing jurisdictions better able to collaborate, respond and support each other

Emergency Social Services:

# By the numbers



**3,000**

emergency cots are available to be set up in facilities across Calgary if mass evacuations are required. We work in partnership with Calgary's post-secondary institutions and other organizations to provide private lodging options whenever possible, but we are always prepared to provide a warm, safe sleeping space even when these facilities are not available.



**3**

Emergency Social Services trailers are pre-loaded with enough basic essentials and supplies to set up three reception centres and two lodging centres within the first few hours of an emergency incident. Basic essentials provided to evacuees for use in lodging centres include cots, bedding, and hygiene kits.



**83**

Calgarians were evacuated from their home due to a fire or other small-scale emergency that were provided temporary accommodations in 2017. Red Cross and CEMA work in collaboration to accommodate citizens for the short term until these individuals can make alternate arrangements with their insurance company or others.

One City, One Country:

## Canada Task Force 2



Canada Task Force 2 (CAN-TF2) is Alberta's all-hazards disaster response team for municipal, provincial, and national disasters. The team assists in emergencies where the local authority is overwhelmed or there has been large-scale infrastructure or environmental destruction or structural collapse. The team is deployed when an emergency exceeds the capability of local agencies or requires specialized skills, equipment, or expertise.

### Preparing for interprovincial assistance

In February 2017, the Province of Alberta joined with the Province of British Columbia to conduct EMX17, an exercise designed to test how the two provinces could work together to respond to an earthquake affecting the Canadian west coast. CAN-TF2 participated in a full-scale exercise in Calgary involving 60 members working on a structural collapse designed to mimic the type of rescue that would be expected in an earthquake. Four other members travelled to Comox, British Columbia, to participate in a tabletop exercise with Canada Task Force 1 and Emergency Management BC to determine how CAN-TF2 would be integrated into the response to such an event.

#### We are prepared:

- Our members committed over 21,000 hours in 2017 to training, public education and operational readiness
- Joint exercises increase CAN-TF2's ability to work with any incoming team deployed to help us in a large-scale emergency
- There are 19 working groups focused on further developing the capacity and capability of the team
- The CAN-TF2 Type 2 Incident Management Team increases Alberta's ability to support response to a large disaster

## Putting ourselves to the test

In October, CAN-TF2 sent 72 members to participate in a full-scale exercise in Fairfax County, Virginia. This intensive exercise ran 24-hours a day for three days, focusing on command, search, rescue, and disaster medical capabilities in a large-scale earthquake response. The exercise was facilitated by Virginia Task Force 1, one of 28 Federal Emergency Management Agency (FEMA) Urban Search & Rescue teams and one of only two U.S. teams designated to respond to international emergencies. While frontline responders were put to work testing their skills, Incident Management Team members connected with representatives from other local emergency management agencies to exchange best practices.

As a result of lessons learned at the exercise, we are making changes to team work/rest cycles during rescue operations, the structure of our rescue teams and our vehicle and equipment loading practices. We will also work towards International Search and Rescue Advisory Group (INSARAG) certification to allow us to receive international teams that may deploy here to support large provincial or national disasters, such as an earthquake in British Columbia.

This was the first CAN-TF2 exercise funded in full through a donation from the Kinsmen Club of the Stampede City and grants from the provincial and federal governments.



## Risk in Calgary

CEMA has been working this past year to revise its Disaster Risk Assessment process to be more comprehensive, inclusive, and reflective of the nature of risk to which the city and Calgarians

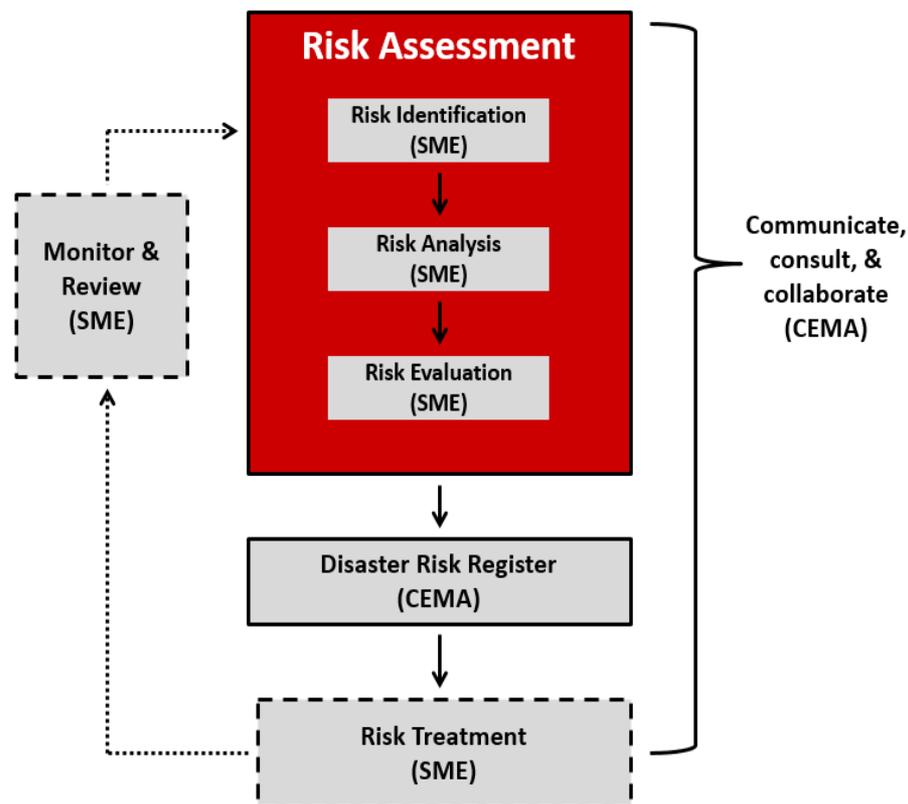
are exposed. CEMA utilizes a three-step Disaster Risk Assessment process to identify, analyze, and evaluate disaster risk. The outcome of this process will be a comprehensive Disaster Risk Register that will assist key decision-makers in researching, evaluating, resourcing, and monitoring risk treatment options.



A total of 67 natural and human-induced hazards and threats were reviewed during the assessment.

The disaster risk assessment represents the most current, significant risk to Calgary.

The Disaster Risk Register will be released later this year to Agency members, Council and citizens to help everyone understand the risks we must prepare for and determine the steps that can be taken to mitigate the impact of these risks.



### We are prepared:

- 17 Agency members and other organizations participated in the Disaster Risk Assessment (DRA)
- The DRA supports risk identification and treatment
- As a result of the DRA, agency members will adjust their business plans to help address any gaps identified

## Raising flood awareness

In May 2017, **Water Utility** and CEMA partnered to conduct door-to-door visits to more than 60 homes in Mission to raise awareness of the changed flood risk in the community. Residents were reminded they live in a 1-in-5 year flood plain and provided with information on how to prepare their homes and families. The City's goal was to ensure residents are better able to manage the consequence of a flood and reduce the social and economic impact of flood within that community.

## Wind emergencies

In October, a severe wind event led to the opening of the Emergency Operations Centre to monitor multiple incidents occurring throughout the city. The wind caused glass to fall from the Devonian Gardens, wipe out power to over 3,000 customers, blow the roof of an apartment complex and fuel a large grass fire in neighboring Rockyview County. Calgary's **911** and **emergency services** converged in the Emergency Operations Centre to provide a joint approach to issues and collaboratively manage road closures, increased calls for service, and citizen safety.

### We are prepared:

- 163 Agency representatives completed 649 hours of emergency management training last year
- Calgary received a provincial grant to support flood readiness and drainage improvements
- Calgary received provincial support for emergency preparedness and mitigation on the Bow and Elbow Rivers
- CEMA conducts a minimum of two annual functional exercises to test readiness and planning of all Agency members
- CEMA provided advanced training on use of the Incident Command System for managing emergencies to 93 people last year
- CEMA is training Agency members in new processes and programs, including our new Incident Management System
- We are stronger now, but the risk of flooding still remains

## Practicing our response to floods and snowstorms

To ensure readiness to respond to emergencies, CEMA brings together its Agency members at least twice a year to test response processes and decision-making in time-intensive, real-life scenarios. In the Spring, over 100 Agency member representatives participated in a river flood scenario designed to challenge business units and organizations to identify their critical infrastructure and risk to them during such an emergency. In the Fall, 100 Agency members were involved in a day-long exercise to test the handover of responsibilities between two shifts to ensure continuity in processes and communication.

## Global issues, local impacts

Events across the globe and closer to home point towards the risk of mass casualty incidents resulting from natural disasters or human-caused events. While the United States has continued to see mass casualty events resulting from gun violence, Canadian instances of such activities are significantly lower. However, mass casualties resulting from natural disasters, such as fires and tornadoes, or mass transit accidents pose the same complex challenges to emergency management.

Last year, work began to align mass casualty planning between CEMA and dozens of groups within a number of our Agency member organizations. Representatives from the **Calgary Police Service**, **Calgary Fire Department**, **Alberta Health Services**, and the **Office of the Chief Medical Examiner** have been working collaboratively to build a common approach and set of practices to be applied to any mass casualty event.

One City, One Culture of Safety:

## Public safety landscape

### We are prepared:

- CEMA reviews its planning after major global events to incorporate learnings and mitigation strategies based on new and emerging attack tactics
- Our mass casualty planning links together over a dozen independent plans into a single, unified response and recovery approach
- CEMA, the Calgary Police Service and Planning & Development are partnering to develop a Corporate approach to mitigate the risk of vehicle attacks
- CEMA staff co-authored briefings for the International Public Safety Association on the response to and recovery from incidents associated with Homegrown Violent Extremism

## Safety and security of large events

With the constantly changing international and domestic terrorism landscape, our responsibility as The City is to ingrain safety and security considerations in all of our special event planning. CEMA and Calgary's emergency services are represented on The City's Interdepartmental Events Team, a one-stop approach for festivals and events on City land. Together, we look at safety issues such as accessibility in and out of the site by pedestrians and emergency vehicles, evacuation routes, and protective measures necessary to secure an area from vehicle attacks.

## Prepared for all hazards

The Municipal Emergency Plan guides the actions of CEMA and City business units during any major emergency or disaster. The plan was updated in 2017 to reflect changes in emergency management processes and practices as well as update the roles and responsibilities of our Agency members. It also now contains guidance related to administration, finance, logistics, and records management processes to be followed during a major emergency or disaster.

The plan links together the plans from other business units that would be activated in a major emergency, such as a debris management and rapid building assessments.

### We are prepared:

- We conduct tabletop exercises in advance of large events to test plans and ensure readiness to respond
- CEMA has resources in place for planned events to ensure the ability to immediately respond to any emergency
- We updated the Infectious Disease Management Plan to reflect best practices and emerging research in public health emergencies
- We regularly recruit new Agency members and partners to help address gaps in safety, preparedness, and planning



### Planned event monitoring

CEMA and its Agency members prepare for, and monitor, large planned events throughout the year to ensure the safety of participants and viewers. In 2017, CEMA opened the Emergency Operations Centre to monitor Canada 150 events occurring across the city as well as the Stampede Parade. Together, both events involved approximately 950,000 spectators and participants.

CEMA has a two-prong approach to business continuity that focuses both on the continuity of service for the Corporation and economic recovery of the private sector.

### Preventing a potential City service disruption

At 7 p.m. on November 22, 2017, there was a major infrastructure outage that caused interruptions to a number of The City's business systems. **Information Technology (IT)** staff restored services to these systems by 11 p.m. IT-enabled critical systems ran out of The City's back-up data centre until systems were returned to the normal environment, ensuring minimal impact to City operations during the outage.

How did IT ensure this smooth transition back to business as usual? Staff worked with CEMA and Business Unit Continuity Coordinators from across all City departments on business continuity and resiliency plans to minimize the impact to City operations during an outage. This work led to developing a Disaster Resiliency failover system, which prevented 45 critical applications that are essential to delivering City services from failing during the disruption that night.

#### We are prepared:

- For the Corporation, total losses from disaster events between 2010 to 2016 were close to \$500 million
- CEMA updated The City's Business Continuity Policy to incorporate best practices that bolster Corporate resilience
- Our work focuses on where we can employ force multipliers. Of the more than 700 resources City services rely on, we identify the ones used by multiple services and advocate to strengthen them through backup and redundancy planning

One City, One Focus on Keeping Business Going:

## Business continuity





### Helping businesses bounce back faster

Within Calgary's business community, CEMA partners with the **Calgary Chamber of Commerce** to help businesses prepare for operations following a major emergency or disaster. The Chamber helps us connect with businesses during a disaster to provide critical information.

In 2017, 42 per cent of businesses indicate they have a business continuity plan to guide their operations following an emergency or business disruption. In 2015, 53 per cent of businesses said they had such a plan. Bolstering this number in the future is essential to ensuring swift economic recovery.

One City, One Way Forward:

## The path ahead



### Managing risks rather than consequences

Disasters have been on a well-defined upwards trend for 40 years. Many impacts of disasters can be mitigated by limiting exposure and reducing vulnerabilities; however, emergency management is still perceived as a service to manage the consequences, as opposed to managing the risks. Going forward, CEMA will shift its focus towards managing and treating the risks to help mitigate the impacts of disasters on Calgary.

How do we do this? We will apply the collaborative, coordinated model we use in emergency management in advance of events that could cause disruption to the lives of Calgarians or the services of the Corporation and our Agency members. We will work with our Agency members on mitigation activities to reduce the impact of impending weather events and resolve operational and safety crises impacting citizens and the Corporation.

As Calgary has experienced an increase in smaller scale, localized emergency events – such as summer storm flooding affecting select communities – we will also broaden our coordination efforts to provide a unified approach to such incidents.

#### The cost of not being prepared:

6X

- According to research from the U.S. Federal Emergency Management Agency, every one dollar spent in prevention saves six dollars in recovery costs

We evaluate 311 and 911 calls following these small-scale events to determine trends in issues in particular communities. We share these insights with our Agency members to allow them to determine what mitigation activities they may be able to do to reduce the likelihood of similar events occurring in the future.

## Key objectives for 2018

**Critical infrastructure.** In 2017, we developed a critical infrastructure strategy that outlined how we will identify critical infrastructure in the city. This next year, we will engage the 22 Agency members identified as critical infrastructure owners to build awareness of the potential hazards and risks that threaten infrastructure and provide support to implement mitigation actions.

**Citizen networks.** Throughout 2017, we redesigned our Ready Calgary program to be delivered online. The revamped program will launch in 2018 with the goal to have communities establish emergency preparedness networks that can be activated in a disaster.

**Disaster risk awareness.** Calgarians need to understand the risks facing their communities in order to prepare themselves appropriately. In 2018, we will launch a new web site to help citizens better understand the city-wide and community-specific risks for where they live.

### We are prepared:

- Our Ready Calgary Kids program equipped 12,000 Grade 5 students in 230 schools with information to help their families prepare for emergencies
- We focus a component of our community outreach and preparedness education for vulnerable populations and high-risk geographic communities
- We are piloting an academic program to leverage the research of faculty and students at post-secondary institutions in our disaster planning
- Our staff are experts in emergency management. In 2017, several published articles and spoke at international conferences on resilience, preparedness, business continuity, and mass casualty planning
- Based on practices used in the 2013 floods, CEMA has established a pilot fleet of Community Response Trailers to be deployed to support communities in recovery and clean up

