

# CALGARY FIRE DEPARTMENT 2013 Annual Report

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CPS2014-0597\_Calgary Fire Department - 2013 Annual Report  
ISC: UNRESTRICTED

**Onward!** Creating a sustainable fire service through the ongoing development of our programs, people and places to meet the growing needs of Calgarians.





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## Message from the Chief

In 2011, the Calgary Fire Department introduced our 10-year Sustainability Plan to guide our actions and help determine the goals and objectives we set in our business plan each year. Throughout our Sustainability Plan and this Annual Report, we share with you our vision for fire and community safety service in 2021. Achieving our 2021 vision is focused on the efforts and talents of our staff highlighted in this report; efforts that advance our social, economic and environmental performance every day.

Last year clearly demonstrated the challenges with – and importance of – strengthening a sustainable fire service that can withstand the many demands placed upon it. While we have worked to keep pace with new community growth over the last decade, our inner city communities have been adding higher density housing and with that, increased populations. The nature of incidents to which our women and men respond has shifted and grown, and we saw that clearly in 2013 as our crews responded to the largest flood in Calgary’s history as well as train derailments, windstorms, grass fires and snowstorms.

We are already seeing the results of our sustainability efforts. Over the last three years we have made great strides towards improving the safety of our communities and firefighters, increasing the efficiency of our operations and expanding our environmental stewardship. In 2013 we:

- **Responded faster to fire rescue and life-threatening emergency medical incidents.** Our response times for the first-arriving engines responding to fire rescue or life-threatening emergency medical incidents were the best since 2008.
- **Reduced the risk of fires.** As a result of our prevention and education initiatives, the number of fires in Calgary has declined by almost 23 per cent since 2008. In addition, our firefighters contained fires to the room or object of origin over 70 per cent of time, reducing fire spread and risk to citizens, firefighters and the community.
- **Minimized our water use and waste.** As of 2011, we reduced water use in stations by 32 per cent, already achieving The City of Calgary’s goal of a 30 per cent reduction by 2030. In 2013, we reached our goal of reducing potable water consumption by 30 per cent by 2033 for our measured facilities. We are also halfway towards our 2021 target of diverting 80 per cent of our waste from landfills.
- **Reconfigured existing resources to maximize our efficiency.** Simply adding more resources is not a viable long-term sustainable option. In 2013, we introduced a number of initiatives aimed at better using our existing resources to improve our response times. Through improving our call answering processes, standardizing firefighter actions preparing to leave on a call, and enhancing technology for firefighters to gather information en route to an event, we saw some promising initial improvements in our response times that we expect to see carried forward in 2014.

I would like to extend my sincerest thanks to the women and men of the Fire Department who, while helping protect Calgarians every day, have also helped move us towards becoming the stronger, more sustainable service we are today.

**W. (Bruce) Burrell**

Fire Chief

### Six sustainability priorities

The Fire Department’s review of 2013 is presented by our six sustainability priorities:

1. Managing growth.
2. Ensuring safe communities.
3. Leading in service to citizens.
4. Elevating our environmental stewardship.
5. Valuing and empowering our workforce.
6. Building service resiliency through emergency management.

## Message from the General Manager

The Calgary Fire Department (CFD) provides critical services that help keep our city and citizens safe. Together, our firefighters and civilian staff serve the community through excellence in fire prevention, education, protection and safety. The team's dedication was demonstrated throughout 2013, most notably following the June flood, Calgary's worst natural disaster in modern history. I am proud of the CFD's achievements in 2013, and the advancements made that keep the department at the forefront of meeting our citizens' needs.

To keep pace with the increasing service demands of our growing city, sustainability remains an overarching theme for the CFD. In 2013, significant progress was made on Fire's 10-year Sustainability Plan which sets out strategies to manage growth and bolster efficient, effective operations that enhance citizen safety and well-being. The plan supports the long-term Vision for Calgary outlined in imagineCalgary and the Municipal Development Plan, as well as Council's priorities in their 2012-2014 Fiscal Plan for Calgary.

Emergency response stations and fire services remain an integral part of complete communities. Through improved strategic urban planning, the CFD is now involved earlier in the planning process to identify emergency service needs for new and existing communities. This integrated approach provides more and better cost-effective options for service delivery while ensuring appropriate safety and protection consideration is given to all communities experiencing growth.

In 2013, one new emergency response station was opened in the community of Seton and two replacement stations opened in the communities of South Calgary and Evergreen to address growth in Calgary's suburban communities. In 2014, a replacement station will be opened in the established community of Windsor Park to help meet increased demands resulting from population intensification in our middle city communities. The CFD's focus on sustainability is working and supporting The City in addressing growth responsibly while ensuring services are being delivered in the most affordable, efficient way possible.

Recognizing the importance of being proactive in our approach to safety, the CFD continues to focus on prevention through education, inspections and enforcement. As part of the Home Safety Program, firefighters visited nearly 20,000 homes in 2013, delivering information about fire prevention and safe practices. These visits resulted in over 600 smoke alarms either being installed or replaced. Through initiatives like this, the CFD directly reaches Calgarians primarily those most at risk and vulnerable to injury, including children, disabled persons, low-income households, immigrant populations and seniors.

Throughout 2013, the Fire Department also worked to improve many aspects of its response performance. Our crews rose to the challenge following the June flood, responding to more than 1,400 incidents in the two weeks immediately following the devastating event. This was a 26 per cent increase from the same time frame in 2012. Of these incidents, more than 400 required firefighters to provide rescues due to rising flood waters. Operational staff also contributed significantly to recovery efforts, working 425 additional shifts, and the team together, coordinated and conducted 3,100 safety code inspections during the flood's immediate aftermath.

While we are committed to working to continuously improve our services, Calgarians' appreciation for the quality of service provided by the CFD resonated through the results of the 2013 Citizen Satisfaction Survey. Citizens rated the importance of fire services at 100 per cent, and satisfaction with the services provided at 99 per cent, making the Calgary Fire Department the top rated City service in these areas. This feedback affirms the importance of the CFD's public service role, and its impact on our communities and citizens.

The CFD is an essential part of the Community Services & Protective Services team and provides a critical function to our city. I share their pride in serving our citizens and I look forward to continuing to work together in 2014 to create and sustain a vibrant, healthy, safe and caring community with Calgarians.

### **Stuart Dagleish**

General Manager

Community Services & Protective Services



## SERVICE IN PROFILE: June 2013 flood

### From fires to floods

Typically, when people think of firefighters they think of crews of men and women, hoses in hand, extinguishing fires. More and more frequently, however, firefighters respond to incidents other than fires. The June 2013 flood was just one example of many last year where our firefighters demonstrated the breadth of rescue, safety and life-saving activities they regularly perform.

*“Had our crews not persevered the way they did, I have no doubt the operation would have switched from a rescue to a recovery. I can’t say enough about the guys that went in there!”*  
~ Fire captain

### A chilling call

At approximately 1:20 p.m. on June 21, a 911 call was received from a citizen who said they could hear cries for help near the Weaselhead lookout (Weaselhead/Glenmore Park). Upon arrival at the scene, firefighters eventually determined that there were two men trapped clinging to trees to escape the frigid and rising water and having trouble hanging on due to their increasingly weakened state. The two crews at the scene quickly initiated rescue activity, with one crew setting out in search of the victims while the other headed out to secure two inflatable rapid deployment craft to assist in the rescue.

The first crew donned dry suits and began wading through chest-deep water running through the trees and brush densely populating the area. In some parts, the water was so deep the firefighters had to swim from tree to tree using pike poles to pull themselves along while moving floating debris aside. Despite the severity of the conditions, firefighters continued their search in the cold, deep waters. Their exhaustive efforts paid off when they were eventually able to locate the victims by yelling back and forth with

the two men. Since the men were already in a hypothermic state, rapidly weakening and unable to safely re-enter the water, the crew awaited the arrival of the rapid deployment craft before proceeding with the rescue.

The second crew arrived with the rapid deployment craft and was faced with a difficult decision. They knew they had to ferry the rapid deployment craft as close as possible to the first crew and the victims, but none of them were wearing dry suits. Without hesitation, the firefighters entered the 10°C waist-deep water where they travelled over a kilometre until they reached the victims. Due to the narrow spaces between the dense trees, the two crews worked together to ferry one victim at a time in a rapid deployment craft as waters rose another six inches. Once safely on land, crews performed initial first aid on the victims before they were transported to hospital by EMS for treatment.

### Firefighters carry on

On the evening of June 21, an evacuation order was issued for the residents of Edwards Place, a downtown highrise seniors’ complex that had lost power due to the rising flood waters. As the residents quickly exited the building, a woman sat in her sixteenth floor apartment feeling trapped and unsure of her fate. The woman, a quadriplegic, was unable to exit the building given that the elevators were out of service. Her caregivers and physician, who were concerned for her safety, called for assistance.

Firefighters arrived and spent nearly an hour carrying the woman, along with some of her personal belongings, in a chair stretcher down the cramped and dark stairwell, alternating positions to ease the



load. Once the crew had completed their exhausting descent to the main floor, the woman was transported to hospital by EMS for assessment.

On June 22 around 3 p.m., the Fire Department received a request to assist a mobility-challenged citizen who was unable to evacuate his 20-storey building. A fire crew arrived at Trinity Place downtown and learned that the building was without power. Inside, they discovered that there was not one person who needed assistance, but six. That number kept increasing and by the end, it had grown to over 50 people needing help.

A second crew was called to assist, and firefighters spent more than six backbreaking hours making multiple trips up and down the stairs to help residents evacuate the building. Stopping only for water breaks, they assisted dozens of citizens needing help navigating the stairs, frequently carrying residents with limited mobility. Once evacuated, the residents were safely transported to temporary housing in and around the city.

### An animal rescue like no other

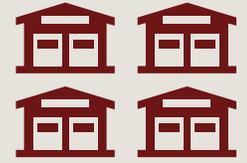
Fire dispatch received an urgent request from the Emergency Operations Centre at 5:33 a.m. on June 21 for a boat crew to assist staff at the Calgary Zoo to check on some of the larger animals remaining in the park. A fire crew arrived with an inflatable zodiac and joined by two zookeepers, paddled through five feet of water to the Savannah Exhibit where the giraffes and hippos resided.

When they arrived at the enclosure, they found the front door inaccessible so they tried a side door on the east side of the building. Approximately seven feet of water covered the door making it impossible to open. A firefighter noticed the window beside the side door was cracked and he could hear grunting sounds. When he looked in the window, he saw one of the hippos pushing up against the glass with its nose. Realizing that only one pane of broken glass was separating the hippos from escaping the building and potentially entering the Bow River, the zookeepers and firefighters quickly searched for a solution.

The crew members noticed a sea-can (metal shipping container) floating nearby. They suggested that it could be used to barricade the door and window. Dressed in dry suits, the firefighters swam through the water, only inches away from the broken window, in order to position the sea-can using ropes and ratchet straps. The hippos could be seen paddling past the window the entire time they were putting the container in place. After some difficult maneuvering, the container was finally put into position. The door of the sea-can was opened slightly to allow water to fill the container providing a seal against the enclosure's side door and window, preventing the hippos from escaping.

The event goes down in history as the first, and quite possibly the last, hippo rescue ever to involve the Calgary Fire Department.

*"They basically saved my life. I will never forget that day and how caring and dedicated those firefighters were in getting me safely out of my building." ~ Rescued citizen*



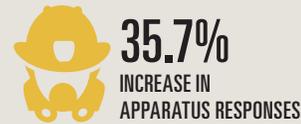
**4** FIRE STATIONS EVACUATED DUE TO FLOODING



**400+** RESCUES PERFORMED AS A RESULT OF FLOOD WATERS



**25.6%** INCREASE IN INCIDENT RESPONSES COMPARED TO SAME TIME PERIOD BETWEEN JUNE 20 AND JULY 4 IN 2012



**35.7%** INCREASE IN APPARATUS RESPONSES COMPARED TO SAME TIME PERIOD BETWEEN JUNE 20 AND JULY 4 IN 2012



**425** EXTRA SHIFTS CALLED IN FROM OPERATIONS STAFF



**1,400+** INCIDENTS RESPONDED TO BETWEEN JUNE 20 AND JULY 4, 2013

**3,100**

SAFETY CODE INSPECTIONS CONDUCTED





# WHO WE ARE

## Sustainability priority: Valuing and empowering our workforce

**The vision for 2021:** In 2021, our workforce has just-in-time access to the types of training and development that support our service to citizens. Our human resources management and programs align with our organizational goals and motivate and support staff in achieving our vision. We apply technology as a strategic tool and enabler for public service innovation, productivity growth and reduction of our environmental footprint. Working in concert with our unions, we create service delivery and workforce strategies that protect the safety of our citizens and reflect consideration for all of the factors impacting our sustainability.

**Our people are key to our success. They protect and safeguard citizens by delivering fire and community safety services to Calgarians living and working in communities across the city.**

**With over 90 per cent of our operating expenditures dedicated to salaries and wages, our workforce is our most important asset and an essential element of our sustainability and success.**

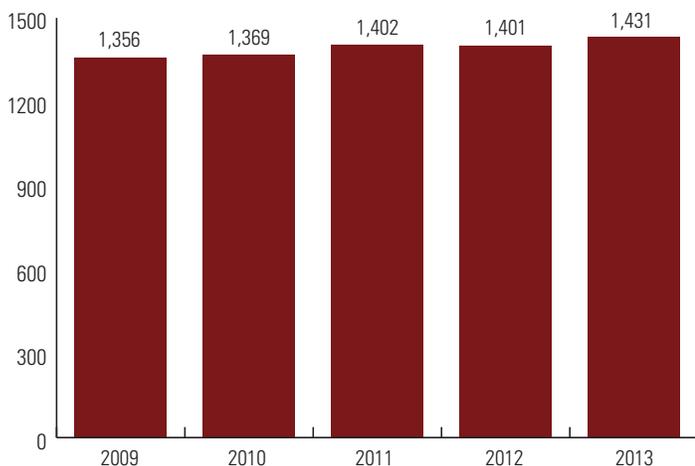
## Understanding and managing our human capital risk

In 2013, 1,431 employees delivered fire and community safety services to over 1.15 million Calgarians.

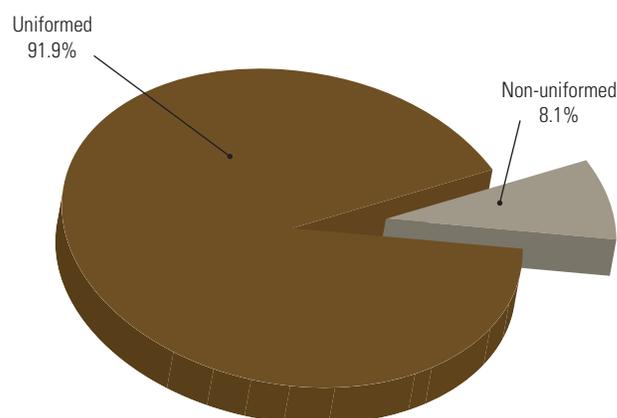
Close to 92 per cent of all Fire Department employees are uniformed staff. Of our total workforce, 88 per cent provide frontline emergency services to citizens while the remaining staff supports firefighters through health and wellness, training and technology initiatives, or oversee programs that enhance service to citizens, such as public education and response and station planning.

In 2013, 62 firefighters retired: the largest number of retirements in five years. In order to compensate for these retirements as well as fill positions needed to staff one new station, three recruit classes completed training to prepare 109 new frontline firefighters.

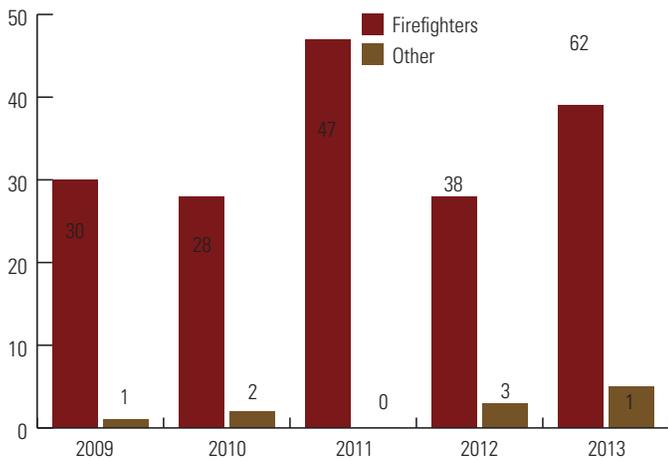
**Total CFD employees, 2009 – 2013**



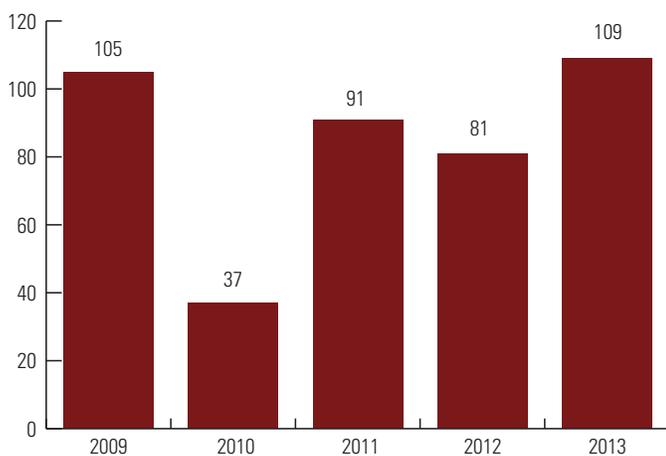
**Uniformed and non-uniformed employees, 2013**



### Calgary Fire Department retirements, 2009 – 2013



### New recruits, 2009 – 2013



### Creating a workforce reflective of our community.

Recruitment activities continued to support our 2011-2014 Recruitment Inclusion Action Plan, which was developed to attract and recruit qualified women, Aboriginal people and visible minorities.

**Preparing employees to deliver a breadth of fire and community safety service.** Staff completed more than 890 online courses to expand their understanding and ability in areas including incident command and Workplace Hazardous Materials Information System (WHMIS). In addition, our training staff delivered 109 in-person training programs on a range of topics for new and incumbent firefighters and civilian employees.

**Fostering leadership.** Through the Supervisory Leadership Development program offered by The City of Calgary in partnership with the Canadian Management Centre, 70 staff from various levels in the organization received training in frontline leadership skills. Since the inception of the program in 2012, 417 lieutenants, captains, district chiefs, battalion chiefs and civilian managers and supervisors have completed the program.

**Strengthening staff abilities to manage large-scale emergencies.** To ensure all staff understand the command system used during a large-scale emergency and their roles and responsibilities within it, all civilian and uniformed members received Incident Command System 100 and 200 level training. Various positions throughout the Fire Department were also identified to complete advanced training on more complex incidents and command principles.

**Improving communications with fire station staff.** In response to firefighter feedback received during discussions with management, closed circuit televisions were installed in all stations to keep frontline staff better informed of City and department news.

We are proud of the work of every one of our staff. In 2013, a number of our employees were recognized for their outstanding commitment to community safety and service.

Lieutenant Brad Gillespie received the Exceptional Recognition Award from the Calgary Police Service for demonstrating an extraordinary level of courage, strength, leadership and dedication when going beyond the call of duty to assist police in apprehending a fleeing suspect in May 2012.

Recruitment Coordinator Ken Wilson was presented with a Public Heroes Award

in Multiculturalism in recognition of his dedication and excellence in delivering services in support of an ethnically and culturally diverse environment.

In honour of the second anniversary of the 2011 Slave Lake fire, members deployed to assist in Slave Lake received a STAR of Excellence Award from The City of Calgary. In addition, former Mayor Pillay-Kinee and Slave Lake Fire Chief Coutts presented more than 200 Calgary Fire Department members with the Slave Lake Medal of Honour to thank them for their help.

The Provincial Office of the Fire Commissioner awarded 29 Calgary Fire Department members with more than 12 years of service the Alberta Emergency Services Medal for their dedication and commitment to emergency services.

On behalf of the Province of Alberta, the Calgary Fire Department hosted the 2013 Fire Service Exemplary Medal Awards for Southern Alberta to recognize fire personnel with 20, 30 and 40 years of service, including 76 of its own firefighter members.

# Collaborating between management and labour to create a safe, engaged and sustainable workplace

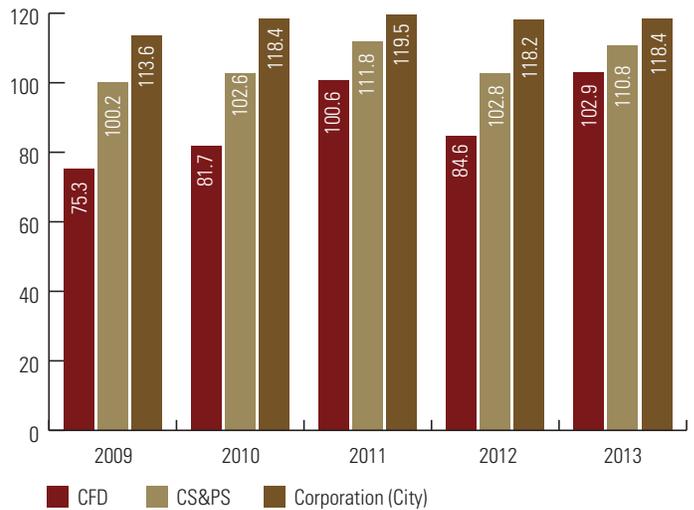
In 2013, Fire Department employees indicated the highest level of job satisfaction to date. With a rating of 102.9, employee satisfaction results increased 18 points over 2012 and demonstrated an overall upward trend over the past five years. Key results included:

- 63 per cent of employees are satisfied with the overall quality of their work life, a 14 per cent increase since 2012.
- The greatest score improvements were in relation to employees feeling that their working conditions are safe, leadership is focused on customer service and staff have the resources needed to do their job.

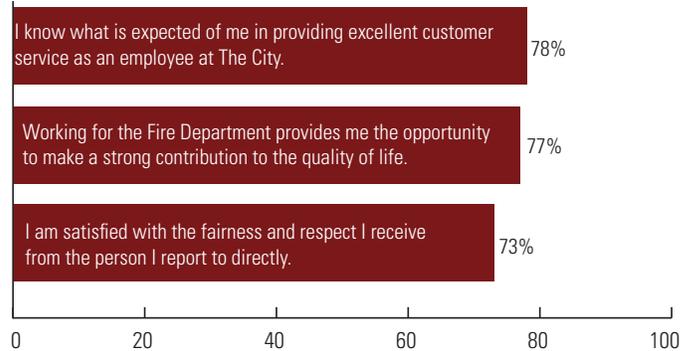
**Establishing joint Labour-Management sessions.** Last year senior executives from the Fire Department and the International Association of Fire Fighters Local 255 continued to participate in a mutual interest problem solving process. A series of sessions provided the opportunity to develop joint solutions to advance the shared goals of employee and citizen safety, and resolve some organizational and workplace issues. Topics addressed in 2013 included terms of reference for the Mutual Interest Problem Solving team, company officer promotions, district chief officer pool interim eligibility and terms of reference for the Joint Occupational Health and Safety Committee.

**Protecting the safety of our firefighters.** An accident investigation program was established to help improve staff and public safety by reducing the number of accidents involving Fire Department apparatus and light fleet. The program improves tracking of collisions and collecting information to discover root causes and identify opportunities for driver education and behaviour modification.

Employee Satisfaction Survey index score, 2009 – 2013



Employee Satisfaction results, 2013



**Maintaining healthy workplaces.** New mandatory training was introduced in 2013 to encourage and support regular workplace inspections at all fire stations and administrative offices. Monthly workplace inspections have been instituted to ensure safe work areas for all staff. In 2013, 100 per cent of 192 required inspections were completed.

A new training program was introduced for new administration staff to ensure awareness of, and compliance with, Fire Department and City of Calgary health, safety and environmental management systems. New mandatory training and procedures on investigating workplace injuries, illness and exposures were also introduced for staff in supervisory and management roles to support stronger, safer workplaces for all staff.

To ensure continued use of best practices in our health, safety and environmental programs, the Fire Department participated in two internal audits of our health, safety and environmental programs: an Internal Environmental Audit (ISO 14001) and Internal Safety Management System Assessment as part of the City of Calgary-wide Certificate of Recognition (COR) program. In addition, we participated in two external audits of these programs, including an external COR audit and ISO 14001-registration audit. We again received our ISO 14001 registration, which marks our twelfth consecutive year of registration. Several sound management practices we employ were noted, including good staff knowledge of aspects of the environmental management system and controls and the functionality within our policy and procedures software to demonstrate staff training and compliance. The Fire Department also contributed to improving The City of Calgary's overall COR audit score from 83 per cent in 2010 to 89 per cent in 2013.

**Supporting staff health.** The Fire Department's wellness and fitness program is a progressive model for delivery of preventative and occupational health care services for firefighters, helping to ensure that fire personnel are healthy for the duration of their careers and subsequent retirement. The Fire Department's Wellness Centre is providing services to increasing numbers of firefighters as the Calgary Fire Department workforce continues to grow and more external fire departments seek the advanced level of health assessments provided here.



**Wellness assessments, 2009 – 2013**

	2009	2010	2011	2012	2013
Employee wellness assessments completed	1,057	1,118	1,050	1,211	1,171
Pre-employment medicals conducted	114	43	163	98	86
External fire and police department assessments completed	21	38	18	57	63

**Engaging staff in decisions that affect their jobs.** Fire Department employees are regularly invited to provide input into programs and projects that impact their jobs and safety. Last year, a number of working groups were formed to identify emerging trends and make recommendations for management consideration on a wide variety of issues, including:

- Changes to the mobile computer systems used in fire apparatus that provide crews with information on the location of an emergency and other incident information that impacts on-scene emergency response.
- Replacement of the self-contained breathing apparatus used by firefighters to better meet operational needs, increase firefighter safety and comply with current industry standards.
- Review and standardization of turnout processes used by firefighters once they receive an alarm in the station alerting them to an emergency to which they must respond.
- Tools and processes for evaluating new training initiatives identified by firefighters and civilian staff as well as for reviewing proposed changes to existing training.
- Investigation of new fire retardant uniforms to meet requirements set out by Alberta's *Occupational Health & Safety Code*.
- Evaluation of the data held by the Fire Department's various records and information management systems to identify requirements for a single, integrated records management system.
- Deployment of apparatus, personnel and equipment in stations across the city and the resulting impacts on response performance.





# WHAT WE DO

The Fire Department is one of five business units within The City of Calgary's Community Services & Protective Services Department committed to improving the quality of life in Calgary communities.

Through the efforts of our staff, we contribute to the health, safety and vitality of Calgarians through an integrated program of emergency fire and medical response, prevention, education and enforcement. We also work with other agencies to support emergency and disaster management planning, preparedness and response.

## Emergency response and firefighting

Four platoons of firefighters located in 39 fire stations across Calgary provide a range of emergency and non-emergency services to 1.15 million citizens. Emergency services include response to fires, emergency medical incidents, chemical and hazardous materials releases and motor vehicle collisions. In addition, our firefighters provide specialized rescue services for incidents involving weather events, high structures and collapsed structures or confined spaces. To ensure the safety of our employees and citizens and adherence with applicable legislation, our staff receives specialized training in emergency response and community safety throughout their careers.

Represents **88%** of total employees and **83%** of overall operating budget.

**Impact on fire service:** It is the area of the Fire Department most directly impacted by community growth and intensification issues, including changes in the volume and type of calls, traffic patterns and road networks, city geography and population demographics.

## Fire trucks, equipment and resources

Reliable emergency response requires timely and appropriate support for emergency vehicles, stations and equipment. Stations must be safe and continuously in operation, which means regular and ongoing maintenance and management. In addition, our specialized fleet of emergency response vehicles is regularly inspected and maintained to ensure optimum performance under any conditions. Fire, protective safety and communications equipment is also regularly tested, repaired and warehoused. Dedicated technology support helps deliver the information we need to make planning and response decisions.

Represents **3%** of total employees and **7%** of overall operating budget.

**Impact on fire service:** This area is most directly impacted by the availability of capital funding to acquire necessary infrastructure used to deliver our emergency and non-emergency services.

## Disaster planning and preparedness

Emergency and disaster management within the Fire Department includes planning and working in conjunction with the Calgary Emergency Management Agency during large-scale events. In addition, it involves developing our own policies, strategies and practices so the Fire Department can maintain service to Calgarians through response to, and recovery from, any major incident. Strong supply chain and workforce management are vital to ensuring business continuity through any emergency.

Represents **1%** of total employees and **2%** of overall operating budget.

## Prevention and investigations

Represents **3%** of total employees and **2%** of overall operating budget.

Through education, inspections and enforcement, we work with building and property owners across Calgary to protect the safety of citizens by monitoring and enforcing compliance with the fire safety codes. Working at municipal, provincial and federal levels, we provide input into the development of new and revision of existing codes and standards to improve safety. Our investigations program identifies the causes of fires and provides vital information that shapes the outreach and education initiatives we provide to our communities.

We also reach more than one in ten Calgarians annually through our community safety programs and education, including initiatives targeted at groups most at risk and vulnerable to injury, such as children, disabled persons, low-income households, immigrant populations and seniors.

## Planning, risk analysis and performance management

As we strive towards increased sustainability and innovation, we rely on a coordinated and specialized approach to our planning, risk management and legislative compliance. We continuously monitor and analyze our performance to ensure we are delivering quality services in the most efficient, effective manner possible. This work includes: business and budget planning; capital planning and development; urban planning; fire-based research and development; environmental monitoring and compliance; occupational health, safety and wellness; policy development; and performance management and reporting.

Represents **5%** of total employees and **6%** of overall operating budget.



## Sustainability priority: Ensuring safe communities

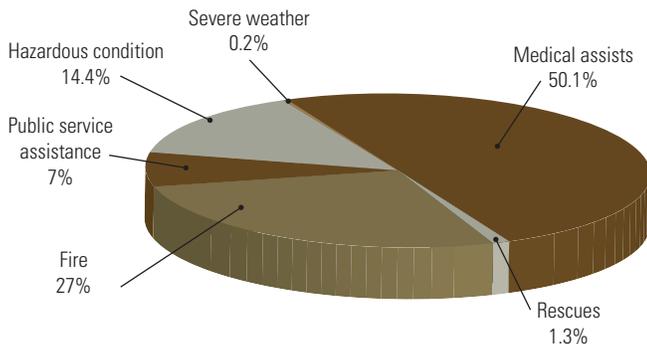
**The vision for 2021:** In 2021, every Calgarian will live in a safe community. Our programs and services will reflect the growing and changing community safety demands of our citizens, and will be tailored to the risk, diversity and needs of each community. Stations and firefighters are core to our communities and are key to delivering programs, services and education that enhance the health, safety and preparedness of our citizens. We support business in our city by ensuring safe facilities and practices that mitigate risk to their employees and our citizens.

## Providing services fundamental to the quality of life of citizens

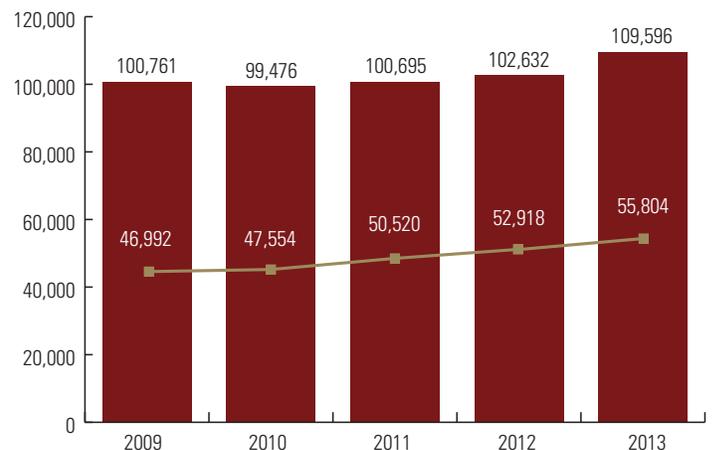
Demand for Fire Department services continues to increase as Calgary grows. In 2013, firefighters provided 109,596 responses to 55,804 incidents, an increase of five per cent and six per cent respectively over the previous year.

Calls for medical assistance increased seven per cent last year, accounting for slightly more than 50 per cent of our total calls in 2013. Our community safety role continued to expand as demonstrated by increased calls for help with rescues, ruptures, explosions and severe weather events.

**Incidents by major incident type, 2013**



**Incidents and apparatus responses, 2009 – 2013**



Despite continued growth in fire risk in Calgary, our prevention activities have contributed to an almost 23 per cent decline in fires since 2008. At the same time, the Fire Department has seen a growing need for its service in other areas vital to the safety of communities and the environment.

**Incidents by major incident type, 2009-2013**

	2009	2010	2011	2012	2013	Per cent of total	Per cent change 2012 – 2013
Fire	15,140	14,964	14,908	14,669	15,091	27%	2.9%
Fire	2,163	1,956	1,860	1,877	1,902	3.4%	1.3%
Rupture/explosion	28	23	14	26	33	0.1%	26.9%
Investigation	5,092	4,818	4,622	4,438	4,526	8.1%	2.0%
False alarm	7,857	8,167	8,412	8,328	8,630	15.5%	3.6%
Medical assist	21,153	21,753	23,392	26,134	27,966	50.1%	7.0%
Rescue	474	444	522	579	711	1.3%	22.8%
Hazardous condition	6,817	7,181	7,965	8,033	8,023	14.4%	-0.1%
Public service assistance	3,364	3,168	3,544	3,441	3,894	7.0%	13.2%
Severe weather	44	44	189	62	119	0.2%	91.9%
<b>Total number of incidents</b>	<b>46,992</b>	<b>47,554</b>	<b>50,520</b>	<b>52,918</b>	<b>55,804</b>	<b>100%</b>	<b>5.5%</b>

**Declining fires in Calgary.** Although only 3.4 per cent of all calls were confirmed as actual fires, 19.9 per cent of all incidents firefighters responded to were for a fire alarm or other indication of fire.

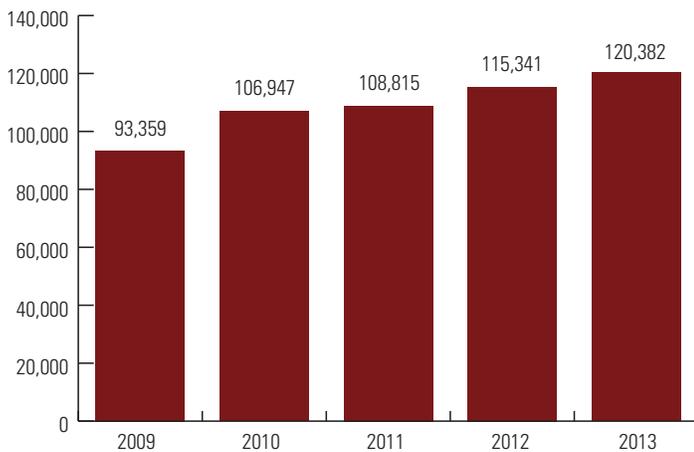
Similar to previous years, just over half of all fires occurred in structures such as homes, garages and businesses.

#### Fire by major fire category, 2009-2013

Major fire category	2009		2010		2011		2012		2013	
	#	%	#	%	#	%	#	%	#	%
Building/Structure	1,075	49.7	1,037	53.0	943	50.7	986	52.4	1,001	52.6
Mobile property/vehicle	275	12.7	223	11.4	258	13.9	253	13.5	243	12.8
Vegetation fires (brush, grass, etc.)	260	12.0	213	10.9	188	10.1	211	11.3	181	9.5
Outside fires (rubbish, storage, equipment, etc.)	401	18.5	363	18.6	336	18.0	311	16.6	322	16.9
Other	152	7.0	120	6.1	136	7.3	120	6.4	94	8.1
<b>Total</b>	<b>2,163</b>	<b>100</b>	<b>1,956</b>	<b>100</b>	<b>1,861</b>	<b>100</b>	<b>1,881</b>	<b>100</b>	<b>1,902</b>	<b>100</b>

## Stations and firefighters are vital elements of neighbourhoods

#### Non-emergency public contacts, 2009 – 2013



#### Ingraining firefighters and safety into our communities.

In 2013, we met our goal of reaching one in ten Calgarians in a non-emergency setting through station visits, educational programs and community events.

Community safety officers offered fire safety information to over 50,000 citizens during various community initiatives and firefighters visited more than 19,800 residences as part of our Home Safety Program. In 2013, we continued to partner with Meals on Wheels and promote home fire safety for Calgarians with mobility challenges.

#### Ensuring safe businesses and facilities in our neighbourhoods.

Each year firefighters visit businesses registered within The City of Calgary to perform safety checks. In 2013, fire crews visited and audited over 23,100 businesses to ensure fire and life safety systems in buildings

were properly operating and functioning in accordance with the Alberta Fire Code. In addition, fire safety codes officers provided almost 13,000 fire inspections and responses to business complaints or inquiries. In 2013, Technical Services staff reviewed and evaluated 970 building plans to ensure facilities and life safety systems were designed and installed in accordance with the Alberta Building Code and Alberta Fire Code.

**Enforcing fire codes to protect citizens.** The Fire Department advocates for every citizen's right to live in a safe dwelling within a fire safe community. We work with building owners, managers and operators to ensure they uphold their legal duty to comply with the Alberta Safety Codes Act. In 2013, the Fire Department pursued charges in three high-profile cases involving a rooming house, hotel and high-rise business tower. Each case resulted in a landlord, business owner or property management company being fined for breaching fire and public safety requirements.

**Engaging a diverse range of citizens.** With fire fatality rates in Aboriginal communities up to ten times higher than the general population, we developed an Aboriginal Inclusion Initiative in 2012 to assist these communities with education programs aimed at reducing injuries and deaths. Last year, we

developed a firefighter preparation program to provide training to volunteer fire departments in Aboriginal communities to improve their emergency services. In 2013, three Aboriginal firefighters graduated from the inaugural program. An educational program was piloted in two schools, where over 400 children learned about how to protect themselves and their families from fires and injuries.

### Overview of community safety activities, 2013

Education and public assistance	2013
After the Emergency Community Support Program: Providing caring support to citizens affected by crisis.	26 events 533 residences visited by firefighters
Home Safety Program: Bringing safe practices and fire prevention education to citizens in their homes.	19,873 homes visited by firefighters 603 smoke alarms installed or replaced
Youth Firesetter Intervention Referral and Education Service (Y-FIRES) Program: Assisting youth at high-risk of arson-related activity.	8 youth clients participated
Firefighter school visits: Firefighters providing fire safety education to children in a classroom setting.	48 schools visited by firefighters 177 teachers and 2,199 students attended
Public fire station educational tours: Firefighters providing fire safety education to children in a fire station setting.	388 tours given by firefighters 5,795 children and 2,132 adults attended
Community safety events: Delivering fire safety and injury prevention education through community events.	23,749 persons attended Fire Department safety education events
Firefighters Museum: Preserving, promoting and honouring the history of the Fire Department and providing fire safety education to the public.	1,971 visitors to the museum
Fire Prevention Week: Educating the public on the services of the Fire Department through station open houses.	Close to 8,250 persons attended events
Doors Open YYC (DOYYC): Behind-the-scenes look at the Fire Training Academy, including demonstrations for the public such as vehicle extrication techniques and fire suppression tools.	Over 620 Calgarians attended
Prevention and inspections	2013
River patrols: Promoting water safety with boaters and rafters.	15,721 people counted and monitored for water safety compliance during 2013 boat patrols
Fire hydrant inspections and testing: Ensuring an appropriate water supply is available for fire suppression activity.	15,187 hydrants inspected and tested
Building plan examinations: Reviewing plans to ensure applicable fire and building codes are in place.	970 plans examined
Fire safety codes officer and firefighter life safety inspections: Completing inspections of businesses and facilities to ensure occupant safety.	10,469 Safety Codes Officer inspections 23,107 firefighter inspections
Community health and wellness	2013
Street Safe Needle Program: Keeping our community safe by removing discarded needles from playgrounds, school grounds, public parks and streets.	7,506 needles collected





<h2 style="margin: 0;">Calgary Fire Department</h2> <h3 style="margin: 0;">Station locations and services provided</h3>			Prevention							
			Public Service							
			Blood pressure testing	Cholesterol screening	Water safety patrol	Chemical drop off	Smoke detector program	Fire Station tour	Sand (winter only)	Bulk water fill station
1	Downtown East	450 1st Street S.E.	•				•	•		
2	Beltline	1010 10th Avenue S.W.	•	•			•	•		
4	Vista Heights	1991 18th Avenue N.E.	•	•		•	•	•	•	
5	South Calgary	3129 14th Street S.W.	•				•		•	
6	Louise Crossing	360 8th Street S.W.	•		•		•	•		
7	Mount Pleasant	2708 4th Street N.W.	•				•	•		
8	Rosscarrock	1720 45th Street S.W.	•	•			•	•	•	
9	Ogden	2515 78th Avenue S.E.	•	•			•	•	•	
10	Briar Hill	1909 16th Avenue N.W.	•	•			•	•	•	
11	Windsor Park	5536 4th Street S.W.	•				•	•	•	
12	Forest Heights	123 44th Street S.E.	•				•	•	•	
13	Airport	2021 78th Avenue N.E.								
14	Haysboro	9840 Horton Road S.W.	•				•	•		
15	Bowness	6328 35th Avenue N.W.	•				•	•	•	
16	Highfield/Headquarters	4124 11th Street S.E.	•					•		
17	Varsity	3740 32nd Avenue N.W.	•			•	•	•	•	
18	Huntington Hills	415 68th Avenue N.W.	•	•			•	•	•	
19	Parkland	13807 Parkland Boulevard S.E.	•	•			•	•	•	
20	Lincoln Park	2800 Peacekeepers Way S.W.	•	•		•	•	•	•	•
21	Silver Springs	209 Silvergrove Drive N.W.	•	•	•		•	•	•	•
22	Temple	7199 Temple Drive N.E.	•				•	•	•	•
23	Dover	2727 26th Avenue S.E.	•	•			•	•	•	
24	Cedarbrae	2607 106th Avenue S.W.	•	•		•	•	•	•	
25	Foothills Industrial Park	4705 76th Avenue S.E.	•							•
26	Midnapore	450 Midpark Way S.E.	•	•		•	•	•	•	•
28	Edgemont	7925 Edgemont Boulevard N.W.	•	•			•	•	•	
29	Coach Hill	7027 Coach Hill Road S.W.	•	•			•	•	•	
30	MacKenzie Towne	6 McKenzie Towne Gate S.E.	•	•			•	•	•	
31	Country Hills	11955 Country Village Link N.E.	•	•		•	•	•		
32	Saddleridge	800 Saddle towne Circle N.E.	•				•	•		
33	Signal Hill	3800 69th Street S.W.	•	•			•	•	•	
34	Royal Oak	1 Royal Birch Hill N.W.	•	•			•			
35	Valley Ridge	11280 Valley Ridge Boulevard N.W.	•	•			•	•		
36	Hidden Valley	10071 Hidden Valley Drive N.W.	•				•			
37	Bridlewood	2511 Eversyde Avenue S.W.	•				•			
38	Skyview Ranch	3 Skyview Springs Cove N.E.	•	•			•			
39	Douglas Glen	4199 114th Avenue S.E.	•	•	•		•	•	•	
40	Symons Valley	12920 Symons Valley Road N.W.	•				•			
41	Seton	3790 Seton Drive S.E.	•	•			•	•	•	

## An essential element of complete communities

**Influencing safe community and infrastructure design.** Throughout 2013, we continued to be involved in corporate planning teams to provide input on emergency response considerations and safety issues at the earliest possible stages of community and infrastructure planning. In the past year, we provided an emergency services perspective to several key design teams:

- Area Structure Plan Technical Advisory Committees for South Shephard, Belvedere, Keystone Hills, Cornerstone, West Macleod and Rangeview.
- West Springs Southeast Area Structure Plan Amendment Technical Advisory Committee.
- McKnight Boulevard Transportation Study.
- Shaganappi Trail Corridor Study.
- Directors Technical Subcommittee, in support of the Directors Integrated Growth Committee.

The Fire Department also contributed to the Corporate Growth Management Team, a cross-departmental team within The City of Calgary responsible for creating the Framework for Growth and Change that establishes the method for putting the Municipal Development Plan into action. We also provided input into the Residential Streets Policy in the Complete Streets Guide to ensure street planning reflects emergency response vehicle and fire suppression requirements.

**Supporting safe, healthy communities.** In addition to the organizations supported by the Fire Department, many Fire Department staff give their personal time and talent throughout the year to support charities and citizens in our city.

### Fire Department community support, 2013

Canadian Blood Services Sirens for Life	Our staff donated more blood during Canadian Blood Services' 2013 Sirens for Life Challenge than all other emergency services in Calgary, totaling 5,195 units of blood from over 200 donations.
November	Firefighters joined their peers from across the country in "The Great Canadian Fire Challenge," growing moustaches and raising \$29,461 for men's health.
Servants Anonymous Society of Calgary & Raise-a-Reader	Fire stations across the city accepted donations for the Annual Book Drive & Sale in support of the Servants Anonymous Society and the Calgary Herald's Raise-a-Reader program.
Calgary Firefighters Toy Association	With the help of Calgary's public and separate school boards and the Salvation Army, firefighters collected toys and hosted close to 1,900 families at a Christmas party for underprivileged kids where they received gifts, a meal and a visit from Santa.
UNICEF	Firefighters worked hand-in-hand with UNICEF on "Count Day," arranging school pickups and sorting money collected during Halloween. UNICEF raised over \$40,000.
MADD Red Ribbon Campaign	The Fire Department took part in the 25th annual campaign by placing red ribbons on fire engines to encourage Calgarians to not drive while impaired.
United Way of Calgary	Staff made pledges as part of the annual City of Calgary campaign and volunteered their time with the organization.
Calgary Firefighters Benevolent Fund	Staff volunteered and donated to the Calgary Firefighters Benevolent Fund, which supports firefighters, retirees, and their immediate families in times of distress.
Project Warmth and Jacket Racket	Fire stations accepted clothing donations through the year and firefighter volunteers collected, repaired, cleaned and distributed warm outerwear to those in need. In addition, the Fire Department participated in the annual Jacket Racket to collect coats for donation to children across the city.

## Sustainability priority: Elevating our environmental stewardship

**The vision for 2021:** In 2021, we meet or exceed global benchmarks for environmental management in fire services and have minimized our environmental footprint through innovative practices and collaboration. From a community perspective, we reduce risks to the health, safety and protection of our waterways, land and air by pioneering safe management practices for hazardous materials in our homes and businesses. Our environmental leadership role is the result of pursuing opportunities that demonstrate a sound balance between environmental benefit and economic sensibility.

### Measuring and reducing the carbon footprint, water use and waste of our operations and fires

**Reducing waste.** In partnership with The City of Calgary's Environmental & Safety Management in 2013, we:

- Expanded desk side recycling to fire stations and buildings.
- Expanded the beverage recycling program at the Fire Training Academy.
- Continued diversion of waste from all new construction activities.
- Reviewed the metal recycling program at our vehicle maintenance facility to ensure best practices.

Because accurate data collection is essential to measure progress towards our 2021 environmental targets, we partnered with The City of Calgary's Waste & Recycling Services last year to install radio-frequency identification tags on our refuse and recycling bins to allow for more accurate measurement of the amount of material diverted from waste to recycling.

**Reaping the benefits of water conservation projects.** In 2013, we reached our goal of reducing potable water consumption by 30 per cent from 2003 volumes by 2033 for our measured facilities set in The City of Calgary's Water Efficiency Plan.

**Reducing energy use.** Energy audit reports that included an evaluation of natural gas and electricity energy consumption were completed for 22 of 38 fire stations. As a result of the audits, heating units were replaced in seven stations with early results indicating an average energy savings of 15 per cent.

We evaluated our electrical consumption with aging appliances with The City of Calgary's Environmental Safety & Management business unit by collecting energy consumption and cost data for models over 10 years old. To date we have begun a program to replace existing refrigerators resulting in energy savings of between 27 to 84 per cent depending on the model.

In 2013, 44 per cent of Fire Department waste was diverted from landfills through recycling programs. We are halfway towards the 2021 target set out in our Sustainability Plan of diverting 80 per cent of our waste from landfills.



## Becoming an energy neutral organization

**Creating energy efficient stations.** Two replacement stations built in Evergreen and Symons Valley and a new station built in Seton are piloting significant new environmental initiatives that will help the Fire Department achieve its goal of becoming an energy neutral organization by 2021. The stations are designed to reduce energy consumption between 52 to 54 per cent and have been registered with the certification goal of Leadership in Energy & Environmental Design (LEED) Gold. Some of the features are:

- Energy efficient building envelopes.
- Solar thermal panels for water heating.
- Light coloured roofing systems to reduce solar heat absorption which can impact heating and cooling loads or artificially change the microclimate around the building.
- Energy-efficient windows to reduce heat loss in the winter and prevent heat in the summer.
- Energy efficient lighting systems with occupancy and daylight sensors.

In addition, the Symons Valley station has solar photovoltaic panels on the roof to supply some of the station's electrical needs.

## Developing partnerships for environmental safety to support reduction in fire and hazardous materials risks

### 2013 Environmental Stewardship

#### Reducing environmental contaminants

Firefighters recovered an estimated 45,041 litres of fluids from motor vehicle collisions and other emergency calls.

#### Waste diversion and reduction

Six fire stations and three landfill Throw & Go locations designated as Household Hazardous Waste program sites collected 1,671,068 kilograms of household hazardous waste chemicals from citizens.

Household Hazardous Waste program sites collected 126,040 kilograms of propane tanks, helium tanks and other cylinders from citizens.

Household Hazardous Waste program sites diverted 528,757 litres of waste oil and 12,095 litres of flammable liquids from Calgary landfills.

Household Hazardous Waste program sites diverted 1,836,326 litres of latex paint and waste oil paint liquids from Calgary landfills.

In partnership with Waste & Recycling Services, the Household Hazardous Waste program sites collected 3,588 metric tonnes of materials from citizens.





# WHY WE DO IT

## Sustainability priority: Leading in service to citizens

**The vision for 2021:** In 2021, we have clearly demonstrated the life and safety outcomes, value and efficiency of our service. The means by which fire and community safety services are evaluated reflects the differences we have made in the quality of our citizens’ lives, our communities and the social fabric of our city. Our commitment to sound science and research will help reduce fire and community safety risks in Calgary. It will also empower us to effectively advocate for change to legislation and practices that result in safer infrastructure and buildings in our city.

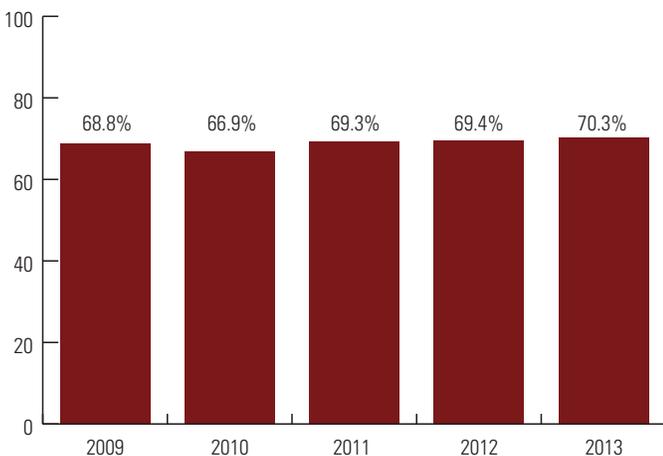
**Our fire and community safety services reflect what we have heard from Calgarians. We demonstrate responsible fiscal management by providing these services as efficiently and effectively as possible while never losing sight of what is most important – the safety of citizens and firefighters.**

## Leveraging experience and sharing practices to drive standards and measures of success for fire and community safety services

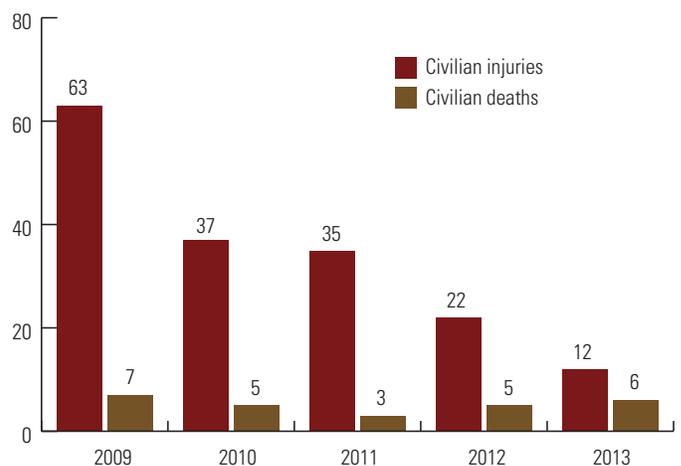
**Minimizing harm to lives and property.** One of our current measures of success is to contain 69 per cent of fires to the room or object of origin. In 2013, we achieved our target and limited fire spread in 70.3 per cent of building/structure fires.

Our continued efforts to ensure safe communities through a combination of prevention and community safety initiatives resulted in the fifth consecutive year of decline in civilian fire-related injuries. Despite our best efforts, six citizens lost their lives to fire in 2013.

**Percentage of building/structure fires where flame spread was limited to within the room or object of origin, 2009 – 2013**



**Civilian fire injuries and deaths, 2009 – 2013**



**Estimated fire loss and save rates, 2009-2013**

	2009	2010	2011	2012	2013
Number of fire incidents	2,163	1,956	1,860	1,877	1,902
Estimated loss from fires	\$30,465,711	\$42,126,848	\$24,151,683	\$46,003,046	\$39,954,859
Fire loss per capita	\$28.59	\$39.32	\$22.14	\$41.07	\$34.76
Total population	1,065,455	1,071,515	1,090,936	1,120,225	1,149,552
Estimated value of property affected by fire	\$2,979,283,525	\$1,200,203,064	\$1,041,447,739	\$1,267,528,603	\$1,213,721,595
Estimated value saved from fire	\$2,948,817,814	\$1,158,076,216	\$1,017,296,056	\$1,221,525,557	\$1,173,766,736
Percentage of value saved	99.0%	96.5%	97.7%	96.4%	96.7%

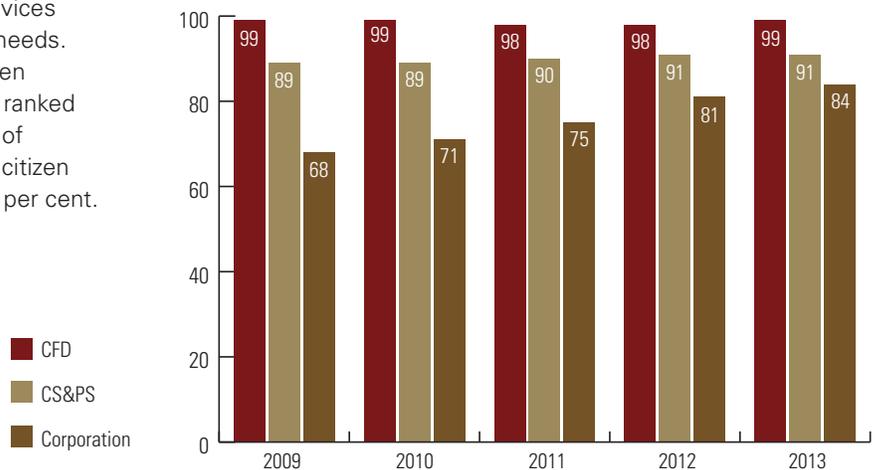
An estimated \$1.17 billion in property and content value was saved from fire, which represents a save rate of 96.7 per cent.

In 1999, the Calgary Fire Department became the first Canadian fire service to be accredited by the Centre for Public Safety Excellence. Our third reaccreditation review will take place in 2014.

## Measuring social return on investment and creating more value for citizens

We continue to meet the expectations of citizens as we adapt and refine our services to meet their changing needs. Based on the 2013 Citizen Satisfaction Survey, we ranked the highest among City of Calgary services with a citizen satisfaction rating of 99 per cent.

**Citizen Satisfaction Survey, 2009 – 2013**  
Percentage of citizens responding somewhat or very satisfied



## Driving innovation that reduces risk to lives and property and supports efficient operations

**Ensuring safer secondary suites.** In partnership with the Development & Building Approvals (DBA) business unit, the Fire Department participated in the Suite Safety Approach pilot program. The pilot, which began in 2012 and ran through 2013, is a proactive approach to ensuring secondary suites are safe and meet the legal requirements for tenant occupancy. The program inspected selected secondary suites for safety and compliance and identified enhancements and recommendations to existing policies to improve safety for these types of residences. In addition, the Fire Department and DBA collaborated with the Government of Alberta to provide subsidized funding to assist landlords with bringing their secondary suites into compliance with building and fire codes as well as the land use designation for the community.

**Uncovering the causes of fires.** In October, we introduced a second accelerant detection canine team to assist in fire investigations and prevention by locating the presence and source of accelerants at a fire. Consisting of a fire investigator and a trained accelerant detection dog, the canine teams attended more than 120 fire events at which the dogs detected 96 accelerant hits.

**Advocating for improved safety through fire code changes.** In 2013, we successfully lobbied the Alberta Fire Technical Council, a sub-committee of the Safety Codes Council of Alberta, to obtain regular City of Calgary representation on the Technical Council. As a standing member, we have an opportunity to influence provincial fire code amendments and interpretations to ensure Calgarians can continue to live and work in safe communities.

**Leveraging technological innovation to improve operations.** Work began on a new records management system for the Fire Department that will consolidate multiple databases and resources into a single system. The system will reduce the time and resources required to collect incident and building data from different sources and support more timely, effective decision making.

Technology and information systems are essential tools in providing frontline crews with the information and communications they need to protect their safety and that of our citizens. We completed a comprehensive review of our critical technology infrastructure in 2013 to evaluate the resiliency of our technology in a public safety environment and maximize our investments in this area. The review identified essential technology infrastructure required to support frontline response, the level of resiliency required and outlined recommendations for inclusion in our future business planning to ensure our technology keeps pace with the environment in which we operate.

**Working together to create road networks that support efficient response.** Well-engineered roadways allow emergency responders to quickly reach the scene of an emergency. In 2013, the Fire Department continued to actively work with The City of Calgary's Transportation Engineering to make recommendations on road network improvements in areas with response issues. Some of the initiatives influenced by Fire Department input included locations of traffic light control devices, intersection locations and design, bridge design and placements, street design, traffic calming measures, emergency access road locations and traffic flow considerations.



**Improving response performance through process enhancements.** A comprehensive performance improvement program was initiated in 2012 to examine opportunities for improving our emergency response times and deployment using existing resources. Strategies were developed specifically to help improve response time performance issues resulting from growth in new communities and intensification in existing communities. Initiatives introduced in 2013 focused on improving processes, enhancing technology and influencing behaviour:

1. An enhanced call answering process was introduced with Public Safety Communications to reduce the time between receipt of the emergency call and dispatch of Fire Department personnel and apparatus.
2. An operational working group was established to review technology, actions and behaviours related to the firefighter turnout process, which is a series of activities that take place prior to fire crews leaving a station to respond to a call. Several initiatives were undertaken to improve turnout times and improve overall response times:
  - Standardized turnout process to be used by crews upon notification of a call.
  - Technical enhancements to support the auditory broadcast of call information to crews.
  - Piloted a count-up timer to visually convey to firefighters the time being used to gear up and get on their apparatus as well as use of light bars to provide a visual indicator of a call and the apparatus to be used.
  - District wall maps installed on the apparatus floors near the trucks to assist drivers with quickly identifying the first segment of roads to be used to reach the address of the call.
  - Community response profile maps provided for use in crew orientation, weekly map drills and district familiarization to ensure firefighters understand their response area and areas of potential challenge or concern.
  - Regular crew turnout performance reviews with district chiefs.



Initial results of these efforts have been encouraging as we have seen improvements in some key response areas in 2013 and expect continued improvement in 2014 in response performance, coverage and service to citizens.

**Deploying existing resources to effectively manage risk.** In late 2013, we implemented a deployment and response model including apparatus redeployment guidelines to manage our existing resources based on risks, probability, reliability and service demands. The model applies a systematic approach to redeploying resources, ensuring that areas identified as high risk and with high probability of incidents occurring have the resources available to perform the critical tasks associated with the incident and its potential level of risk.

The Deployment Working Group regularly evaluates the Fire Department's deployment performance. Through this review process, resources may be added for growth or be relocated to better achieve performance targets or address community risk. All apparatus additions and moves are analyzed to determine the effect on response performance on a regular basis.

**Partnering to foster innovation.** In 2012, we established a partnership with the University of Alberta to examine performance measures that would more accurately reflect our ability to deploy resources based on identified risk. Last year, we examined fire trends within Calgary, including assessing the appropriate balance between getting the first unit on scene and assembling a full complement of firefighters, known as an effective response force, based on the level of risk the incident presents. Some of the results were incorporated into the creation of our new deployment and response model and are used when considering the purchase and placement of new apparatus.





# HOW WE DO IT

## Sustainability priority: Managing growth

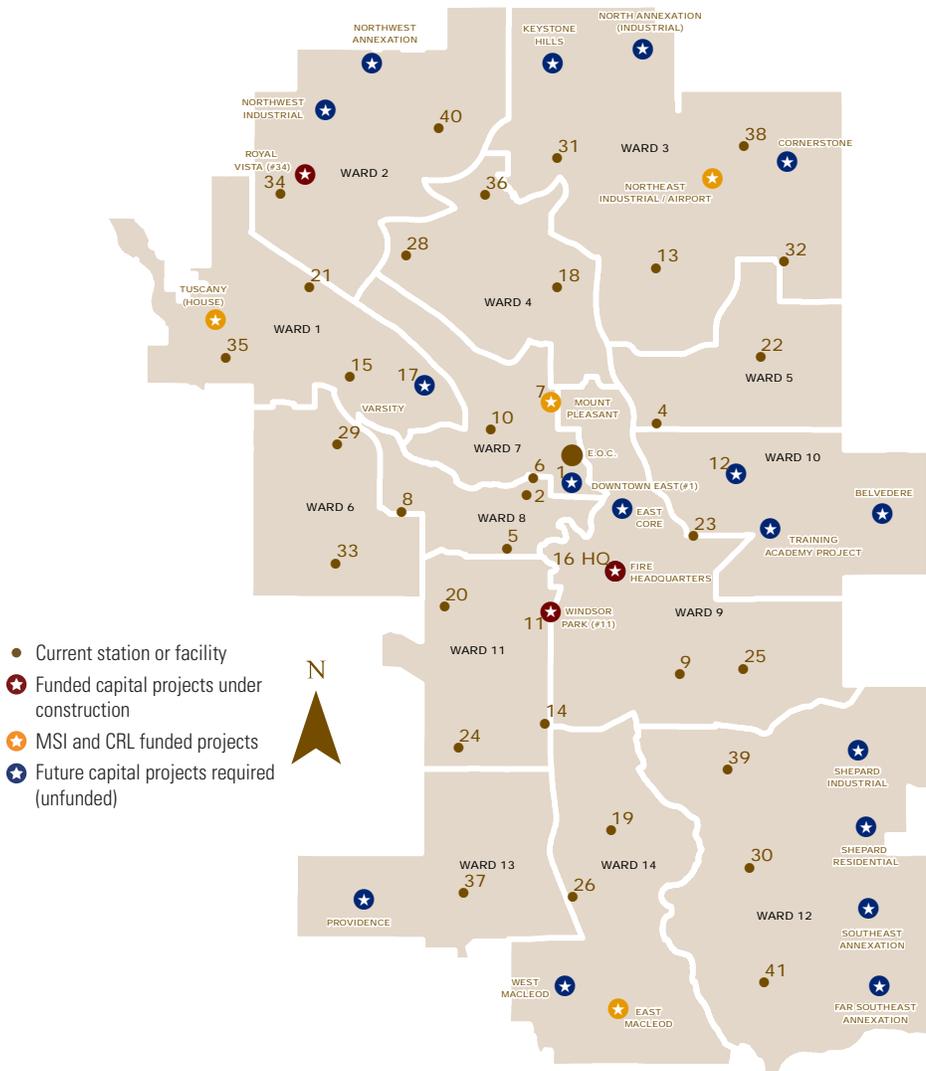
The vision for 2021: In 2021, we will effectively and efficiently balance the fire and public safety service requirements presented by growth. Every Calgarian will have equitable access to appropriate, affordable and acceptable fire and community safety services. Sustainable, predictable funding allows us to maintain safe equipment, apparatus and facilities to support our service to citizens.

**Like many City of Calgary services, one of our key challenges is to keep pace with growth in Calgary, whether by providing fire service to newer communities or realigning service in older communities where populations have intensified.**

## Committing new or renewed fire and community safety services for communities

In 2013, one new and two replacement fire stations were opened while construction started on another.

The Calgary Fire Department has service level and response time targets approved by Calgary City Council. For emergency response, the long-term goal is to have a first engine company on scene within six minutes and 30 seconds at life-threatening emergency medical incidents, 90 per cent of the time, within seven minutes at fire rescue incidents, 90 per cent of the time and to establish an effective response force (all the resources needed to manage a fire suppression event) within 11 minutes, 90 per cent of the time.



Improvements to the Fire Department's response performance in 2013 are in part a result of our performance improvement programme. Changes to placement of our apparatus in the city, how our firefighters prepare to leave stations for calls and how incident information is communicated to fire crews are expected to continue to result in response time performance improvements.

**New Seton Multi-Services Facility, Fire Station #41.** Opened in November to serve the rapidly growing southeast communities of Seton, Auburn Bay, Cranston and Mahogany, this new station is home to the Fire Department, Calgary Police Service, Animal & Bylaw Services and Community & Neighbourhood Services. The station will help better meet the emergency response demands in these high-growth communities as well as the new South Calgary Health Campus.

**Replacement Evergreen Fire Station #37.** As populations in established neighbourhoods intensify, our existing station and staffing configurations must change to support these changes in communities. In December, the Evergreen Fire Station became operational, replacing a temporary two-bay station which served the growing communities of Bridlewood, Evergreen, Millrise, Shawnee Slopes, Shawnessy and Somerset since 2003. Aside from emergency response services, the new three-bay station offers community-focused programs and an open space near the entrance for community and school groups to gather.

**Replacement Symons Valley Fire Station #40.** With the growing populations in the newer communities of northwest Calgary, this permanent station opened in March to replace the temporary fire-house that served the communities of Evanston, Kincora, Sherwood, Sage Hill and Nolan Hill since 2010.

**Fire stations under construction.** Construction began on the replacement Windsor Park Station #11 in 2013 to expand our capacity to better serve growing inner city residential and industrial communities. This station, expected to open in 2014, will continue to serve the surrounding communities of Windsor Park, Erlton, Parkhill and Fairview and the Manchester Industrial area.

Planning for a permanent Royal Vista Fire Station #34 began in 2013 and it is expected to open in northwest Calgary in 2015. Analysis to establish a site location for a new fire station to serve Calgary's deep south communities of Walden, Legacy and Chaparral was also undertaken in 2013.

**Assessing response performance.** In 2009, City Council approved 18 long-term performance benchmarks for the Fire Department, which are outlined in our Service Levels and Response Time Targets Plan. In consultation with City Council, we set annual performance targets during each three-year business planning cycle to incrementally move us towards our longer-term benchmarks. Progress towards, and ultimate achievement of, these benchmarks is subject to annual funding through The City of Calgary's budget process, and the Fire Department's commitment to ongoing quality improvement.



**Fire Department performance, 2013**

Council approved long-term benchmark	2013 comparative cities benchmark survey results	Fire Department 2013 results
Number of fire stations per capita at or near comparable Canadian cities	An average of 30,219 persons protected per station	An average of 29,476 persons protected per station
Number of fire suppression personnel per capita at or near comparable Canadian cities	One firefighter for every 912 persons	One firefighter for every 874 persons
Average service area covered per fire station at or near comparable Canadian cities	An average service coverage area of 20.45 km <sup>2</sup>	An average service coverage area of 21.74 km <sup>2</sup>
Fire suppression cost per capita at or near comparable Canadian cities	Average of \$133.96 per capita	Average of \$135.68 per capita

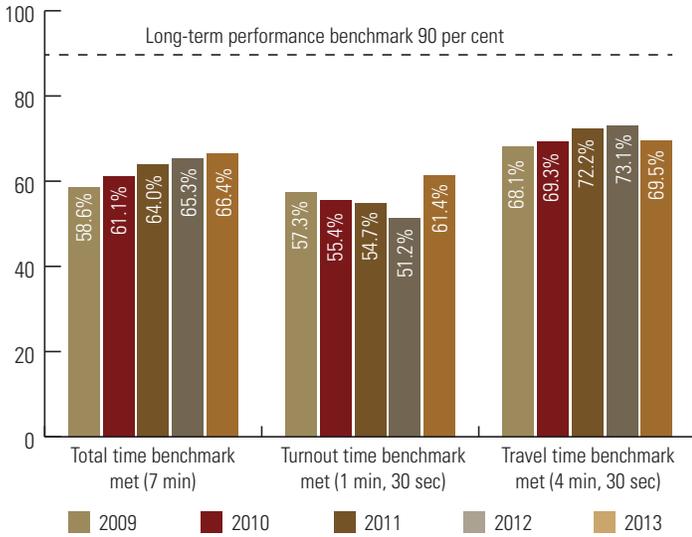
**Fire Department performance, 2013**

Council approved long-term benchmark	2013 result	Time achieved 90 per cent of the time	Comparison to previous years
First-in engine emergency response within seven minutes at fire rescue incidents, 90 per cent of the time.	66.4 per cent of first-in engines arrived within seven minutes.	9 minutes and 14 seconds or less	Best performance since 2008 8 seconds faster than 2012
First-in engine emergency response within six minutes and 30 seconds at life-threatening emergency medical incidents, 90 per cent of the time.	78.2 per cent of first-in engines arrived within six minutes and 30 seconds.	7 minutes and 41 seconds or less	Best performance since 2005 14 seconds faster than 2012
Ninety second or less turnout for the preparation of the first engine company at fire rescue incidents, 90 per cent of the time.	61.4 per cent of first-in engine turnout times were within 90 seconds.	2 minutes and 8 seconds or less	Best performance since 2005 19 seconds faster than 2012
Sixty second or less turnout for the preparation of the first engine company at life-threatening emergency medical incidents, 90 per cent of the time.	32.2 per cent of first-in engine turnout times were within 60 seconds.	2 minutes and 3 seconds or less	Best performance since 2005 20 seconds faster than 2012
Four minute and 30 second or less travel time for the arrival of the first engine company at fire rescue incidents, 90 per cent of the time.	69.5 per cent of first-in engine travel times were within four minutes and 30 seconds.	6 minutes and 16 seconds or less	15 seconds slower than 2012
Four minute and 30 second or less travel time for the arrival of the first engine company at life-threatening emergency medical incidents, 90 per cent of the time.	76.8 per cent of first-in engine travel times were within four minutes and 30 seconds.	5 minutes and 37 seconds or less	5 seconds slower than 2012
Full first alarm assignment at a fire suppression incident within 11 minutes, 90 per cent of the time.	59.6 per cent of full first alarm assignment total response times were within 11 minutes.	14 minutes and 38 seconds or less	29 seconds slower than 2012
Eight minute and 30 seconds or less travel response time for the deployment of a full first alarm assignment at a fire suppression incident, 90 per cent of the time.	53.1 per cent of full first alarm assignment travel times were within eight minutes and 30 seconds.	11 minutes and 40 seconds or less	Best performance since 2006 5 seconds faster than 2012
Flame spread limited to within the room or object of origin in 69 per cent of building and structure fire suppressions.	Flame spread was limited to within the room of origin or object of origin in 70.3 per cent of building/structure fires.	N/A	0.9 per cent improvement from 2012
Apparatus that meet minimum staffing requirements (four firefighters for each engine, and two for rescue units, aerial units, tankers, and hazmat units).	All apparatus provided sufficient staffing to meet its requirements.	N/A	Performance same as 2012
Percentage of fleet beyond recommended lifecycle replacement.	An estimated 6.4 per cent of fleet are beyond recommended life cycle replacement guidelines.	N/A	2.4 per cent improvement from 2012

**Fire rescue incident response**

Response times to fire rescue incidents are key markers of performance because the fast arrival of staff and equipment on scene are essential to assess the situation and prepare for a fire attack to reduce damage to property, protect the environment and save lives.

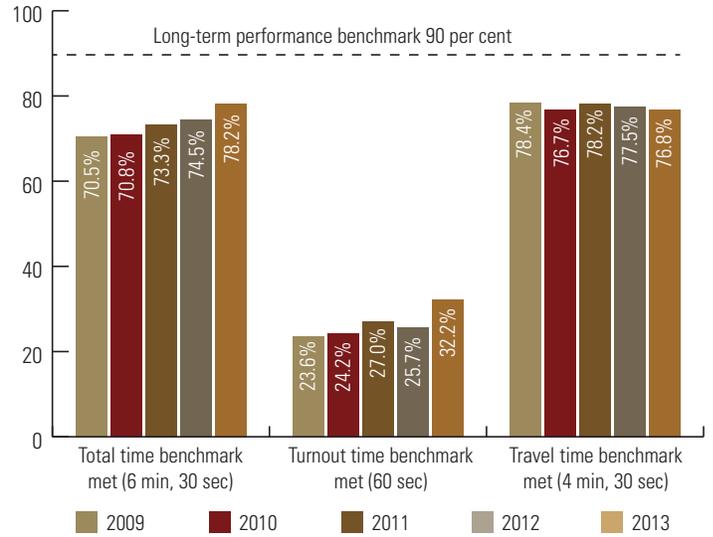
**First-in engine response time performance  
Fire rescue incidents, 2009 – 2013**



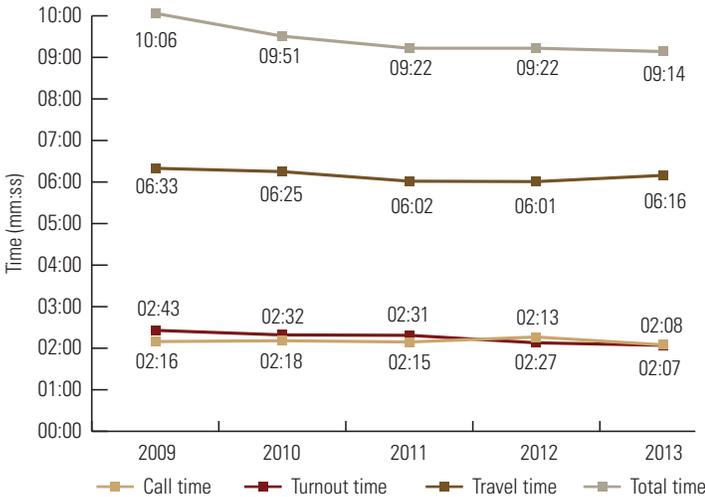
**Life-threatening emergency medical incident response**

Response times to life-threatening emergency medical calls are key markers of performance because the success of defibrillation decreases seven to 10 per cent every minute following the onset of a heart attack.

**First-in engine response time performance  
Life-threatening emergency medical incidents, 2009 – 2013**



**First-in engine response times (90th percentile)  
Fire rescue incidents, 2009 – 2013**



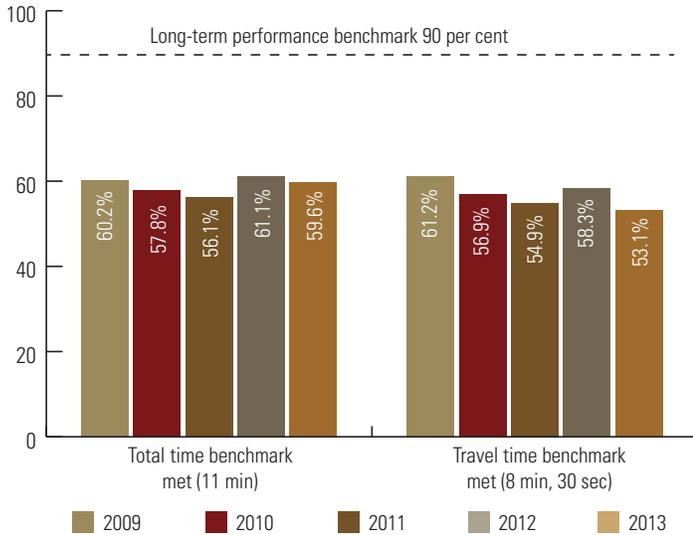
**First-in engine response times (90th percentile)  
Life-threatening emergency medical incidents, 2009 – 2013**



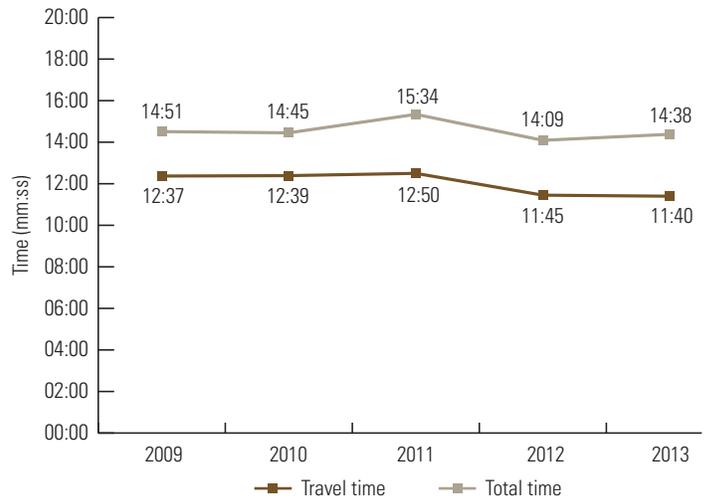
**Full first alarm response**

Full first alarm response refers to the Fire Department's ability to amass the appropriate number of firefighters on scene to perform all the tasks necessary to safely perform citizen rescues and control the fire.

**Full first alarm assignment response time performance  
Fire suppression incidents, 2009 – 2013**



**Full first alarm assignment response times (90th percentile)  
Fire suppression incidents, 2009 – 2013**



Last year brought with it the continuing challenge faced by many City of Calgary services to balance service with demand due to community growth and intensification issues, including changes in the volume and type of calls, traffic patterns and road networks, city geography and population demographics. These factors contribute to performance issues

in four key areas of Calgary: 1) East Corridor 2) Downtown Core 3) Southwest Transportation Corridor and 4) Suburban Communities (Periphery Growth). Initiatives to address issues in these areas are underway and performance improvement has been seen.



## Cooperating, collaborating and partnering to secure public and private resources for capital investment, service provision and education

**Leveraging the support of the private sector.** We value the support of our private sector partners who have made a commitment to the safety of Calgarians:

- Through a five-year partnership with the Fire Department, Encana Corporation is providing support for the majority of the day-to-day operating expenses for our canine accelerant detection teams, including care and feeding of the dogs, provision of a natural-gas fueled truck and annual recertification and equipment costs.
- State Farm sponsors the cost of training the canine accelerant teams including a one-on-one week-long training before the dogs are released to the Calgary Fire Department.
- ConocoPhillips supports our Youth Firesetter Intervention Referral and Education Service (Y-FIRES) Program that assists youth at high-risk of arson-related activity. ConocoPhillips also provides funding for trauma pups given by firefighters to children involved in an emergency situation and coloring books that help educate children about injury and fire prevention.
- ATCO supports our participation in Campus Calgary, an innovative program that enriches student learning by taking them outside the classroom to sites across the city, including our Fire Training Academy.
- In partnership with the Calgary Board of Education and Calgary Separate School District, ATCO also sponsors the youth Fire Cadet Program. The 18-month program gives

high school students a chance to learn about firefighting and demonstrate our values: pride, professionalism, teamwork and respect. Cadets learn basic firefighter skills, including vehicle extrication, search and rescue and CPR.

- Canada Safeway is a key sponsor of Fire Prevention Week, which includes station open houses attended by citizens to learn more about fire and life safety.
- Emerson Clarke supports printing of our home safety brochure that is distributed at events throughout the year to teach Calgarians how to protect their homes and families from fire.

**Securing funding from other levels of government.** Within our 2013 capital budget of \$70.6 million, the majority of funding comes from grants from other levels of government, including 33 per cent of funds coming from the Government of Alberta's Municipal Sustainability Initiative and 19 per cent from the Alberta Municipal Infrastructure Program. While these forms of funding are significant in supporting our current infrastructure projects, we continue to seek out more sustainable forms of capital funds to help support our long-term planning.

The Fire Department, with Community Services & Protective Services, worked on a long-term sustainable funding strategy that will be finalized in 2014 to 2015. Within it, we have identified potential funding alternatives from a range of sources, including provincial, federal and private funding.



## Ensuring long-term funding sufficiency, optimal use of assets and ongoing adoption of innovation

**Managing operational spending.** The Fire Department’s 2013 Council-approved operating budget was \$192,261,000, 2.7 per cent higher than in 2012. In 2013, our actual operating expenditures were \$192,400,000, less than one per cent higher than the approved operating budget.

Revenues were similar to the previous year and include services provided to the Calgary Airport Authority, sponsorship revenues, out-of-town responses, inspections and fines/penalties. Salary and wage expenses increased and are mainly due to additional firefighters necessary to staff new stations. Incremental flood-related operating expenditures, including overtime for Fire Department employees and the Calgary Emergency Management Agency, were \$5.1 million at the end of December and were recorded as recoverable from the Government of Alberta. These are subject to final review and approval of flood claims by the Province.

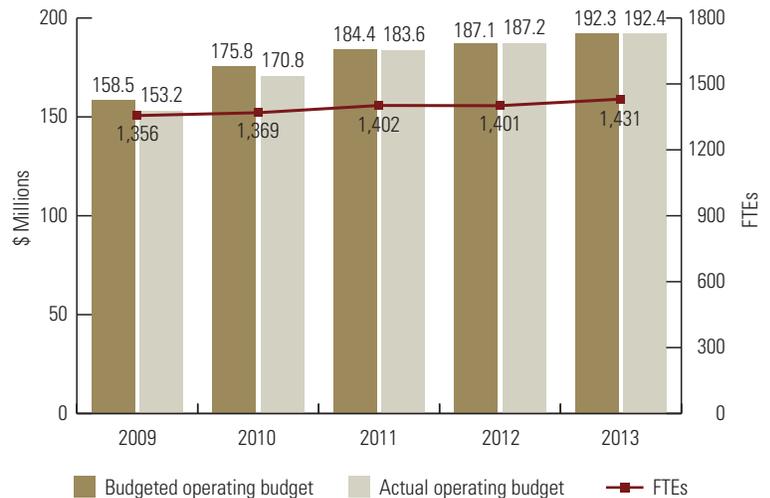
**Maximizing capital budgets.** The Fire Department’s total Council-approved capital budget was \$189.7 million, distributed over 2013 to 2016. The budget allocation for 2013 capital expenditures was \$70.6 million, with 52 per cent allocated to new stations and facilities.

In 2013, \$31.3 million was spent constructing fire stations due to growth as well as revitalizing aging infrastructure, expansion of our training facility and completion of the new Emergency Operations Centre. Additional capital expenditures included fleet and light equipment for \$3.1 million, capital maintenance of existing stations in the amount of \$5.0 million, information technology and communications equipment expenses for \$4.4 million and flood-related capital expenses of \$0.6 million.

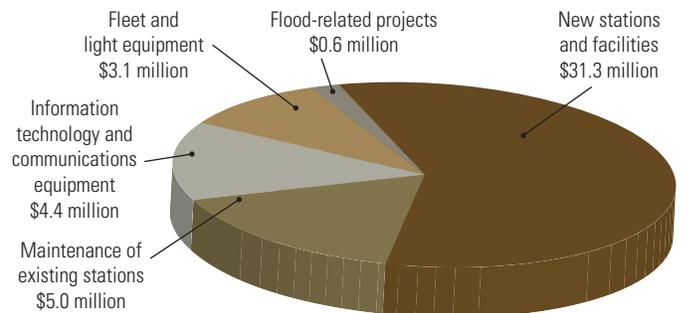
In 2013, the Fire Department collaborated with The City of Calgary’s Corporate Growth Management project team to determine the priority and sequencing of where and when development will occur across the city. The project team worked to ensure The City’s infrastructure investments are timed and planned to accommodate growth and redevelopment within its financial constraints. The priority and sequence list is one aspect of the broader Framework for Growth and Change, which provides The City with an integrated, cross-departmental decision-making approach and ensures the timing of the Fire Department’s investment decisions maximize the economic, social and environmental returns for The City and its citizens.

Last year, the Fire Department also developed an asset management improvement strategy to advance our asset management practices, tools and capacities. We identified

**Operating budget versus actual and full-time employees (FTEs), 2009 – 2013**



**Actual capital expenditures, 2013**



initiatives related to our processes, information systems, data management and organizational capacity that align with industry best practices and City of Calgary goals.

**Forecasting future station requirements.** In 2013, we piloted a new methodology to forecast future station requirements through the use of The City of Calgary’s Infrastructure Risk Management Framework. This methodology uses a comprehensive and quantitative assessment of risks given various investment options. It is a systematic and defensible approach to determining the optimum infrastructure investment that will achieve required service levels while minimizing risks and lifecycle costs of our assets, thereby ensuring the best value to our citizens.

## Sustainability priority: Building service resiliency through emergency management

The vision for 2021: In 2021, we have established relationships, planning and protocols critical to maintaining our service to citizens throughout the course of any large-scale disaster or emergency. By leveraging our stations and firefighters located throughout Calgary, we are a key partner in helping create resilient, self-activating communities. We are closely tied to forecasting emerging disaster and emergency events, and prepare our workforce and communities to respond safely, effectively and appropriately.

### Achieving public safety resiliency through partnerships

**Assisting agencies with public safety management.** As a member of the Calgary Emergency Management Agency, the Fire Department regularly partners with agencies to collectively address matters of public safety. Last year, we provided support to the Calgary Police Service Emergency Operations Center while it was activated for a large public event. We also had representatives at The City of Calgary's Emergency Operations Centre to assist with coordinating activities during the June 2013 flood as well as various pre-planned events including the Calgary Stampede Parade.

**Learning from emergency response experiences.** Following the June 2013 flood, which tested almost all of our emergency response plans, we participated in debriefings with other City departments as well as external partners. This allowed the opportunity for us to reinforce best practices and capitalize on opportunities for improvement. As a result, we are able to translate these learnings into planning for and responding to large scale events.

**Supporting improved emergency management in the private sector.** As a member of The City of Calgary's Gas and Oil Group, we provided expertise and input regarding public safety considerations related to new development taking place in proximity to oil, gas, and pipeline infrastructure. We worked closely with local oil and gas producers to build relationships, understand roles and responsibilities and maintain awareness of ongoing operations, maintenance or abandonment. We also participated in tabletop exercises with local response contractors to ensure mutual understanding of roles, responsibilities and capabilities in the event of an emergency involving oil and gas facilities, lines or other infrastructure.



## Developing a comprehensive emergency management program

**Establishing business continuity plans.** When large-scale emergencies or disasters strike, the Fire Department must be able to secure the resources it needs to respond and assist citizens. Business continuity planning continued in 2013 with the creation of several specific emergency management plans to guide how we will continue to operate during a large-scale incident, as well as support the Fire Department's recovery from a significant incident.

**Managing large-scale emergencies.** In May, a new mobile fire command unit became operational. The unit provides our incident command teams with state-of-the-art technology in a highly functional command centre layout, supporting the coordination of response activities with other agencies. Additionally, the unit improves our ability to respond to large-scale incidents when our Fire Tactical Operations Centre and the Emergency Operations Centre is activated. Since becoming operational, the command unit has been used by emergency services commanders at several significant incidents, including a large grass fire in May, and two train derailments in June and September.

## Contributing to preparedness and self-activation of communities in response to, and recovery from, large-scale disasters

**Preparing individuals to help themselves.** We partnered with the Calgary Emergency Management Agency for the third annual Disaster Alley as part of National Emergency Preparedness Week. Members of the Fire Department and other emergency services were on hand to provide learning opportunities for Calgarians on how to better prepare for an emergency or disaster situation. We were also a presenter at the annual Safety Expo at City Hall and staffed a display during the annual Calgary Stampede to educate citizens on emergency preparedness.



## SERVICE IN PROFILE: Unique challenges, specialized services

While the success of our prevention and education activities has contributed to a significant decline in the number of fires in Calgary over the past five years, firefighters are responding to more calls in other areas vital to the safety of our environment and communities. Environmental and climate change factors are influencing the frequency and magnitude of events on a worldwide basis. Firefighters are increasingly at the frontline of defense and protection against a widening range of natural and manmade emergency events.

### Bonnybrook Bridge train derailment

With the June 2013 floodwaters just starting to subside, the Fire Department was called on June 27 to respond to the partial collapse of a rail bridge over the Bow River and the resulting derailment of several cars of an 11,000-foot long train. The Fire Department took command of the incident and coordinated the efforts of several City business units and external agencies to devise a plan to prevent the contents of the rail cars from emptying into the river, a primary source of the city's drinking water. Over 22 intense hours, fire crews stabilized the affected tank cars and transferred highly flammable petroleum distillate from five tank cars while the cars remained hanging from the bridge. Once the dangerous materials were safely removed, all six cars were removed from the damaged bridge.

### Alyth Yard train derailment

On September 11, the Fire Department responded to a train derailment in Alyth Yard, one of Canadian Pacific Railway's primary marshalling yards in Canada. When crews arrived, they discovered eight derailed tank cars, six of which were completely off the tracks. A break in a natural gas line caused by the derailment initially exacerbated the emergency situation and required the evacuation of 142 nearby residences and 12 businesses. Over two days, crews removed over 240,000 litres of a



flammable and volatile hydrocarbon product from the train cars. Due to the preparedness and planning of the commanders and crews, there were no injuries and no product was released into the land or air, preserving the safety of citizens, workers, firefighters, surrounding properties and the environment.

### Grass fires

As a result of extreme dry conditions throughout the province, the Fire Department was called to battle several grass fires in and around Calgary between April 26 and May 10, including a major fire in Edworthy Park. More than 40 homes in close proximity to the fire were evacuated and the Fire Department requested aircraft support from Alberta Environment and Sustainable Resource Development and additional firefighting resources from Rockyview County Fire Service. The quick and effective response by firefighters resulted in no injuries, deaths or property damage from the fires. Over the two-week period, fire crews responded to seven separate fires in Calgary and surrounding districts.

### December record snowfall

On December 2, Calgary experienced a winter snowstorm that lasted three days. As drivers were stranded, residents were snowed in and schools were closed, fire crews were kept busy responding to vehicles stuck in snowdrifts and accidents on city roadways and highways. In the days following, Calgary continued to receive record amounts of snow, resulting in more than 32 centimetres of snow in the first 16 days of the month, an increase of 300 per cent from the average of just eight centimetres. By the end of December, Calgary received the most snowfall it has had in 112 years. The excessive snowfall and winter storms resulted in 11,003 apparatus responses for the month, 15 per cent higher than in December 2012.

**INCREASE IN  
TYPE OF CALLS  
2012 TO 2013**

**26.9%  
INCREASE**  
IN CALLS FOR HELP WITH  
RUPTURES AND EXPLOSIONS



**22.8%  
INCREASE**  
IN CALLS  
FOR RESCUE  
ASSISTANCE



**91.9%  
INCREASE**  
IN SEVERE  
WEATHER  
INCIDENTS





## Honoring our fallen

**Firefighter Hugh McShane**  
(1923) Apparatus Accident

**Captain Arthur Simmons**  
(1948) Union Packing Plant Fire

**Firefighter Norman Cocks**  
(1962) Training Accident

**Lieutenant Lloyd Dutnall**  
(1970) Calgary Stockyards Fire

**Lieutenant Harold Smith**  
(1971) McTavish Block Fire

**Firefighter Jerry Walter**  
(1972) Beachcomber Night Club Fire

**Firefighter David Allan**  
(1976) Apparatus Accident

**Firefighter George Look**  
(1981) Manchester Racquet Club Fire

**Captain Art Scotten**  
(1985) Occupational Cancer

**Firefighter Morley James**  
(1992) Forest Lawn Hotel Fire

**District Chief Reuben Poffenroth**  
(1998) Occupational Cancer

**Captain Ron Renard**  
(1998) Occupational Cancer

**Division Chief Ken Moody**  
(1999) Occupational Cancer

**District Chief Maurice Simonin**  
(2000) Occupational Cancer

**Chief Training Officer George Heming**  
(2003) Occupational Cancer

**Captain Edward Briggs**  
(2004) Occupational Cancer

**Deputy Chief William Beattie**  
(2005) Occupational Cancer

**Captain Alan Edwards**  
(2005) Occupational Cancer

**Fire Chief Thomas Minhinnett**  
(2005) Occupational Cancer

**Captain James Symon**  
(2005) Occupational Cancer

**Firefighter Robert Elder**  
(2005) Occupational Cancer

**Captain Bruce Dancy**  
(2006) Occupational Cancer

**Captain James Keats**  
(2006) Occupational Cancer

**District Chief Sidney Gilbert**  
(2007) Occupational Cancer

**Firefighter Gord Paul**  
(2007) Occupational Cancer

**Captain Olaf Wilson**  
(2007) Occupational Cancer

**Division Chief Jim Carrington**  
(2008) Occupational Cancer

**Captain Ron Lindberg**  
(2010) Occupational Cancer

**Captain Bruce Seitz**  
(2010) Occupational Cancer

**Captain Bob Derrheim**  
(2011) Occupational Cancer

**Captain Rik Taylor**  
(2012) Occupational Cancer

**Fire Chief Wayne Morris**  
(2012) Occupational Cancer

**Captain Robert Moore**  
(2013) Occupational Cancer

**Captain Allan Anderson**  
(2013) Occupational Cancer

**District Chief Leslie Badry**  
(2013) Occupational Cancer



