Calgary Fire Department

The Calgary Fire Department’s strong reputation with citizens stands on its high-quality service, smart responses to growth, and efficient and effective use of resources. With 1,517 employees, we provide a range of emergency and non-emergency services to our 1.27 million citizens by contributing to the health, safety and quality of life of Calgarians.

More than fighting fires – responsive and proactive services

Though Calgary’s growth patterns have changed significantly in the last year, demand for our services has not slowed down. New growth, urban intensification, evolving demographics and changing community needs collectively influence call volume, types of calls, response performance, fire and life safety education and enforcement initiatives.

Managing Increased Demand

In 2018, we opened Station 42 in Tuscany and we piloted a Medical Response Unit (MRU) in Temple, which resulted in improved response times to critical medical interventions. Motor vehicle collisions accounted for 8 per cent of incidents.

In 2018, 48 per cent of our responses were related to critical medical interventions. Vehicle collisions accounted for 8 per cent of incidents. Hazardous condition calls and severe weather calls continue to make up a significant portion of our call volume (10 per cent). The size and severity of incidents, including changes in the types of hazardous and weather-related incidents, are expected to increase in the next decade.

• 112,917 apparatus responses to 63,561 calls for help, an increase in incident activity of 1 per cent over 2017.
• Prevention activities have contributed to a 29 per cent decline in fires since 2013.
• In 2018, 48 per cent of our responses were related to critical medical interventions. Motor vehicle collisions accounted for 8 per cent of incidents.
• Hazardous condition calls and severe weather calls continue to make up a significant portion of our call volume (10 per cent). The size and severity of incidents, including changes in the types of hazardous and weather-related incidents, are expected to increase in the next decade.

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In 2018, citizens report that on average 7.5 minutes is a reasonable time to respond to an emergency with a first-in unit, (CS Perceptions & Expectations Survey); 7 minutes is the target within 10 per cent of the internally-recognized standard (6:24) supported by the National Fire Protection Association. It remains a challenge to close the gap on the long-term goal for both the arrival of a first-in unit on a fire suppression incident and the arrival of an effective response force within 11 minutes 90 per cent of the time.

In addition, the latest MBNCanada survey results indicate Calgary is performing at the same level or better than comparative municipalities at outcome measures such as rate of residential fire injuries and fire fatalities, while our fire service operating costs per assessed value of the property we protect was $0.89 per $1,000, significantly lower than the comparative municipalities’ average of $1.34.

A Message From Calgary’s Fire Chief

We know that our communities trust and value Calgary Fire Department (CFD) services. In the 2018 Citizen Satisfaction Survey, CFD received a 100 per cent importance rating and a 99 per cent satisfaction rating, in addition, 95 per cent of respondents stated that CFD personnel are courteous and professional. Of notable interest in the survey was 43 per cent – five per cent more than 2017 – of respondents stated that The City should invest more in CFD. This is one of the largest increases in terms of desired investment in the 2018 survey. These results speak to the understanding of citizens of the critical need for CFD to grow to address growth in call volume, and the continued growth of the city, to deliver prompt and effective customer service.

With Calgary’s growth and new community development, we will continue to see new and emerging issues that will require a flexible and proactive response environment. In 2018, service demand continued to grow to 63,561 calls, with critical medical intervention calls representing approximately 48 per cent of our calls and opioid calls increasing 38 per cent over 2017. To help with the increase in call volumes I was pleased that Council took the bold step in voting to reinstate $1.7 million in funding to CFD’s budget. This action by Council shows they understand how important CFD’s work and services are to our communities.

2019 CFD priorities and direction

Our priorities for 2019 include continuing our focus on the mental health of our members, closing the gap in effective response times and receiving accreditation through the Commission of Fire Accreditation International (CFAI).

Mental health

We know that firefighters are at a much higher risk of mental health challenges than the general population. CFD has a range of programs to support the mental health of firefighters throughout their careers and beyond, including the Resilient Responder program, psychologist pilot program – the first in Canada – and the Critical Incident Stress Management program.

Effective response force

Over the last two years call volumes have increased by 11 per cent. Currently, CFD is almost two minutes above the Council-approved 90th percentile 11-minute target. We will continue working to improve efficiency by monitoring industry best practices and emerging trends, including new industry standards that have been released by the National Fire Protection Association (NFPA) for call time and revising our Council-approved service level and response time targets (SLRTT).

Accreditation

CFD continues to demonstrate that it is an international fire service leader by having our peers assess CFD compliance with industry best practices in an intensive continuous quality improvement process set out by the CFAI. After almost 20 years of accreditation from CFAI, we are seeking a fifth accreditation later this year.

Overall, adapting to City growth will be a challenge; however, CFD will continue to maintain its high quality of service and look for opportunities to build relationships and enhance services to our communities.

Steve Dongworth
Fire Chief
CALGARY FIRE DEPARTMENT
The Calgary Fire Department in Ward 13

(Population: 90,220)

Station 37

2511 Eversyde Ave SW

Providing emergency response service into the communities of Evergreen, Somerset, Shawnessy, Millrise, Shawnee, and Silverado, this station is a permanent three-bay facility and was opened in December 2013. The new station was preceded by a temporary two-bay station located in the community of Bridlewood which served the community since 2003.

Built: 2013

Ward 13 Station Information, 2018

<table>
<thead>
<tr>
<th>Number of Incidents</th>
<th>Apparatus Housed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evergreen Fire Station 37</td>
<td>1,037</td>
</tr>
</tbody>
</table>

Please note: incidents reported in the table include all responses made by station apparatus both within and outside the ward.

Calgary Fire Department Infrastructure Plan

The Fire Department develops long-range capital plans and regularly evaluates where stations and resources should be allocated to ensure the optimal level of fire protection for the citizens of Calgary. To meet the needs of growth, two additional emergency response station within Ward 13 are approved to be built to support rapidly growing deep south communities East and West of Macleod Trail.

Ward 13 - Incidents, 2018

Ward 13 - Incidents by Major Call Type, 2018 (4.1% of City Total)

- Fire & Fire Relate, 651, 23% (Number of Fires: 47)
- Hazardous Conditions, 248, 9%
- Critical Medical Interventions, 1,328, 51%
- Motor Vehicle Collisions (Medical), 189, 7%
- Public Service Assistance, 186, 7%
- Rescues, 16, 1%

Legend:
- BUI EMTS
- BUIs
- Paraglo Beast
- Paraglo
- Hazardous Condition
- Fire
- EMS
- Special Medical Intervention
The Calgary Fire Department (CFD) is committed to providing efficient and effective services, optimizing the use of its resources to achieve the desired outcomes and priorities set out by Council and citizens, and demonstrates value through quality of service, responsiveness to growth and efficient use of resources.

Citizen engagement results through the Citizen Satisfaction and Perceptions highlight the importance Calgarians place on community safety and well-being, including the efficient and reliable response to emergencies, including critical medical interventions within seven minutes. Citizens also indicated a desire to maintain current priorities and service levels and report that future investment in the Fire Department should remain the same or be increased over the next ten years.

**Service Levels and Response Time Targets (SLRTT) Plan: First-in Unit**

In January 2008, City Council adopted performance measures related to incident response. These measures are used to determine the level of service Calgarians can expect to receive from Calgary Fire.

The Emergency response time target for the arrival of a first-in unit within seven minutes was approved by Council and reaffirmed in 2018 under The Calgary Fire Department’s SLRTT plan.

**Importance of Seven Minute Response Time Target**

Extended response times to emergencies will increase risk to citizens, including increasing the likelihood of injury, fatality, property damage and property loss. Striving to meet the current 7-minute target ensures an appropriate, acceptable and affordable level of service to Calgarians. The risks will directly correlate with time for all types of responses including critical medical intervention, fire, motor vehicle rescues, and hazardous material incidents.

**CFD Responses in Ward 13**

**Priority Responses (7 Minute Goal)**

In 2018, of the 1,876 priority first-in unit responses in Ward 13, 81 per cent met the total response time goal of seven minutes. Responses greater than seven minutes may have been impacted by geographical factors including road and weather conditions, new neighbourhood growth, traffic and construction, access and egress, busyness due to high call volume within the district or neighbouring districts and/or factors that delayed communication time or turnout time.

<table>
<thead>
<tr>
<th>Ward 13 Priority Incident Responses</th>
<th>Number of Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident responses within 7-minute goal</td>
<td>1,525</td>
</tr>
<tr>
<td>Incident responses over 7-minute goal</td>
<td>351</td>
</tr>
<tr>
<td>Total</td>
<td>1,876</td>
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</tbody>
</table>

City-wide: 86% of responses within 7 minutes
Ward 13: 81% of responses within 7 minutes

Source: CFD FireHub

Note: Priority responses in this analysis include all priority (i.e. hot) first-arriving unit responses responding to incidents within Ward 13.

Our long-term performance benchmark is for 90 per cent of first-in unit priority responses to arrive on scene within seven minutes. In 2018, 90 per cent of responses in Ward 13 arrived on scene within 7 minutes and 51 seconds.

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>City-wide 90th Percentile First-in Response Performance</th>
<th>Ward 13 90th Percentile Response Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Incidents</td>
<td>7:30</td>
<td>7:51</td>
</tr>
<tr>
<td>Fire</td>
<td>7:46</td>
<td>7:55</td>
</tr>
<tr>
<td>Critical Medical Intervention</td>
<td>6:59</td>
<td>7:21</td>
</tr>
</tbody>
</table>

The map that follows shows the locations where CFD first-in units responded within the total response time goal and the locations where first-in units were unable to respond within the goal time.

1City-wide First-in Unit response performance non-geocoded.

2Ward First-in Unit response performance geocoded.
Why Do Seconds Matter?

**Every fire is different**: Each fire burns differently depending on materials involved, fuel sources and weather conditions, such as wind. The latest research on sprinklers shows that they are effective at containing indoor residential fires about 90 per cent of the time, but do not address other fire risks, including external fires and attic fires.

**Fires can double in size every 30 seconds**: Typically, new home construction results in faster flame spread beyond the room of origin. According to the National Fire Protection Association (NFPA), fires can spread up to 1,100 per cent in the first four minutes.

**Fire can spread to multiple homes in under 10 minutes**: Fire personnel and equipment must arrive quickly as fires can spread very rapidly and flash over in less than 10 minutes. According to NFPA, the probability of civilian death increases by 1,090 per cent when a fire moves beyond the room of origin, and the probability of civilian injury and average dollar loss per fire more than doubles.

**Every second counts when it comes to saving lives**: In the case of critical medical interventions, such as cardiac arrests, each minute a patient waits for CPR can reduce the chances of saving them by up to 10 per cent. After ten minutes, the chance of success from defibrillation is only five per cent. Treatment within 3–5 minutes of a heart attack increases a patient’s survival rates by up to 70 per cent.

**Service Levels and Response Time Targets (SLRTT) Plan: Effective Response Force (ERF)**

In January 2008, City Council adopted a series of long-term response preparedness and performance objectives related to Calgary Fire’s performance. These measures, included in the Service Level and Response Time Targets (SLRTT) plan, identify the Department’s response time, deployment, apparatus and equipment objectives.

As approved by Council, the SLRTT set the CFD’s long-term goal of assembling an effective response force, (minimum 12 firefighters), on the scene of potential building/structure fires within eleven minutes 90 per cent of the time, while also setting short-term annual targets as a means of achieving the long-term goal.

**CFD Responses in Ward 13**

**ERF Responses (11-Minute Goal)**

In 2018, of the 25 priority ERF responses in Ward 13, 68 per cent met the total response time goal of 11 minutes. Responses greater than 11 minutes may have been impacted by geographical factors including road and weather conditions, new neighbourhood growth, traffic and construction, access and egress, busyness due to high call volume and/or factors that delayed communication time or turnout time.

<table>
<thead>
<tr>
<th>Ward 13 ERF Responses</th>
<th>Number of Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident responses within 11-minute goal</td>
<td>17</td>
</tr>
<tr>
<td>Incident responses over 11-minute goal</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
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<tr>
<td>City-wide: 80% of responses within 11 minutes</td>
<td></td>
</tr>
<tr>
<td>(695 of 866 effective response force incidents)</td>
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</tr>
<tr>
<td>Source: CFD FireHub</td>
<td></td>
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<tr>
<td>Note: ERF responses include all priority (hot) ERF</td>
<td></td>
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<tr>
<td>response force assembling on scene of potential</td>
<td></td>
</tr>
<tr>
<td>building/structure fires within Ward 13</td>
<td></td>
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</tbody>
</table>

Our long-term performance benchmark is for 90 per cent of all effective response forces to assemble on scene within 11 minutes. In 2018, 90 per cent of responses in Ward 13 arrived on scene within 13 minutes and 2 seconds.

<table>
<thead>
<tr>
<th>City-wide 90th Percentile ERF Response Performance¹</th>
<th>Ward 13 90th Percentile ERF Response Performance¹</th>
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<tbody>
<tr>
<td>12:55</td>
<td>13:02</td>
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</table>

The map that follows shows the locations where CFD effective response force units were assembled and responded within the total response time goal and the locations where units were unable to respond within the goal time.

¹City-wide and Ward ERF response performance geocoded.
Incident Responses > 11 minutes: 8
Incident Responses <= 11 minutes: 17
ERF to incident type 111 (Building or Structure Fire):
-Priority Responses Only
-Not Cancelled Enroute
-Valid date range: January 1, 2018 to December 31, 2018
Incident counts only represent those falling within the ward boundary.
Incident Description

- On Tuesday, June 19th, CFD responded to a 2-alarm house fire in the SW community of Woodbine. Two homes were destroyed and one was heavily damaged. The cause of the fire was improper disposal of smoker’s materials in a planter. The estimated total loss is $960,000.

- On Saturday, August 18th, CFD responded to a 1-alarm house fire in the SW community of Bridlewood. The cause of the fire was related to a failure in a Jeep which was in the attached garage. The estimated total loss is $477,000.

- On Tuesday, August 21st, CFD responded to a 1-alarm garage fire that destroyed 3 garages and damaged several homes in the SW community of Silverado. The cause of the fire was due to the careless disposal of smoking materials. The estimated total loss is $510,000.

- On Monday, December 30th, CFD responded to a 2-alarm house fire in the SW community of Canyon Meadows. One home was damaged. The cause of the fire was related to a fireplace chimney. The estimated total loss is $850,000.

Note: Significant fires are defined as any fire incident with a total loss of $100,000 or higher, any 2-alarm or greater fires, or any incidents that resulted in civilian injury or death.