

Fire & Emergency Response

Led by: Chief of Calgary Fire Department

Description

Supported by 42 fire stations and 1,328 firefighters, Fire & Emergency Response provides life-saving emergency assistance to Calgarians and visitors across 848 square kilometres. This includes responding to over 70,000 fire and fire-related incidents, critical medical interventions, motor vehicle collisions, hazardous conditions, specialized technical rescues including water rescues, and calls for public service assistance annually. The service also supports Fire Safety Education and Fire Inspection & Enforcement by helping to deliver community risk reduction programs like general fire prevention education and Fire Safety Reports.

Value and benefits

Fire & Emergency Response provides essential emergency response services to fire, rescue and critical medical incidents. This service protects lives and prevents and reduces damage to property and the environment. Ensuring life safety and property and environmental protection contributes to a more resilient economy and resilient and safe communities for all Calgarians. Since insurance rates are determined by the level of municipal fire protection and water supply, Fire & Emergency Response also improves insurance evaluations which benefits citizens and the economy.

Customers

Customers of the service include individuals who are facing injury or an imminent threat to their life, major property damage or loss, or are in need of emergency or related non-emergency public services.

What we deliver

The service provides life safety and fire protection services at emergency incidents. This includes basic life support, fire suppression, specialized technical rescues including rope/high-angle, aquatic, heavy/structural, confined space, and hazardous materials response, large-scale emergency response and a wide range of related, non-emergency public services and community engagement.

Partners

Fire & Emergency Response works closely with other City services including Fire Inspection & Enforcement, Fire Safety Education, Police Services, Emergency Management & Business Continuity, Calgary 9-1-1, Water Treatment & Supply, and external partners including Alberta Health Services, Alberta Emergency Management Agency, public utilities and neighbouring municipalities.

70,645 Number of emergency calls in 2021

57% Increase in fires since 2019

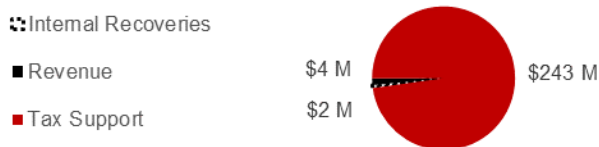
20% Increase in critical medicals since 2019

\$42 million Estimated dollar loss from fire in 2021

Key assets

Critical assets for service delivery include 160 emergency response vehicles, 42 stations, a vehicle repair facility, Fire Headquarters and the Fire Training Academy. The service also relies on specialized personal protective equipment, communication equipment, and firefighting tools and equipment.

Fire and Emergency Response
2022 Budgeted Gross Operating Expenditures Funding Breakdown (\$ Millions)*



* Gross operating budget may include internal recoveries that are also included in other services' gross operating cost.

Note: Internal recoveries is how The City accounts for the costs of goods or services between services

What we have heard & what we are watching

What we have heard

According to customer research in 2021 and 2022, 100 per cent of Calgarians consider Fire & Emergency Response to be an important service and 96 per cent are satisfied with the service they receive. Calgarians value safe and resilient communities and 98 per cent support maintaining or increasing current investment levels for the service. The majority of Calgarians who had contact with the Fire Department said that they most valued a prompt response to emergency calls and said it was important that the service remains ready to respond with the right equipment, staffed by competent, polite and caring people. Ninety-two per cent of Calgarians agree that the Calgary Fire Department should be resourced to keep pace with the development and growth of the city – now and in the future. This indicates broad support for adequate funding to maintain service levels as the city grows.

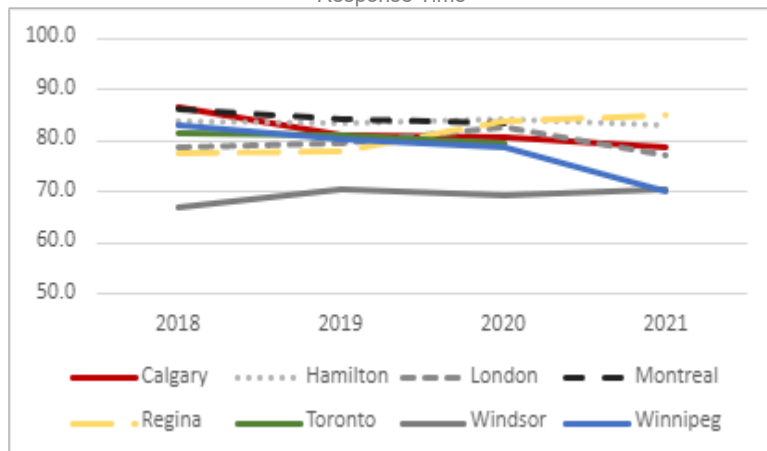
What Council has directed

Fire & Emergency Response contributes to Council's foundation of a resilient city. The service plays a significant role in building strong communities that are economically, socially and environmentally resilient. Emergency response time targets for the service were approved by Council and reaffirmed in 2018 through the Service Level and Response Time Targets report. Fire & Emergency Response continues to experience significant challenges in meeting these targets, particularly in the assembly of essential firefighting resources at serious and escalating fires. In July 2022 the service responded to a Council Notice of Motion to provide resource requirements and costs to meet NFPA 1710 standards. The service is also working to improve social equity in Calgary by advancing initiatives that promote an equitable, anti-racist, diverse, and inclusive service that reflects all Calgarians in its composition and is able to maintain strong trust and ties with the community.

What we are watching

Fires today spread faster, burn hotter, cause more damage to property, and pose a higher risk to firefighters and Calgarians due, in part, to changes in building design and construction. The Fire Department monitors emergency response performance, advancements in technology and automation, community risk levels, vertical and greenfield growth, new construction types, population growth, demographics, and new incident types. Emergency calls are increasing each year for fires, motor vehicle collisions, and medical calls, placing a strain on existing resources. The service is also analyzing the impacts of deteriorating service from Emergency Medical Services on service levels. There is a gap between current performance and the long-term targets approved by Council and a larger gap to meet industry best practice benchmarks for emergency response. The service's top risks are completing legislated training and competency requirements and balancing staffing levels to maintain service levels.

Percent of Emergency Responses that meet NFPA 1710 Standards for Total Response Time



MBNCanada

Comparing our service

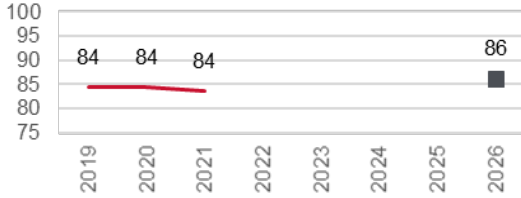
The graph compares response time performance for the arrival of the first unit at all priority emergencies across municipalities. Total response time is defined as the time taken from notification of the responding station to arrival of the first unit at the incident. In 2021, Calgary's performance was on par with the median for first-in unit arrival at emergencies. It is important to note that the service still faces challenges in assembling an effective response force at serious incidents which is a strong indicator of positive outcomes at life threatening and escalating emergencies.

Measuring performance & where we want to go

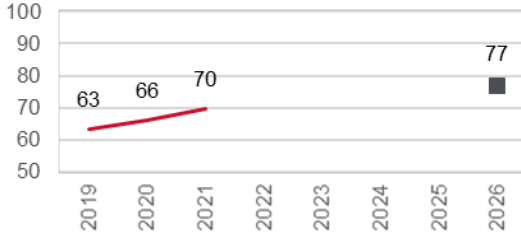
For Council Approval

— Actuals ■ Expected Future Performance

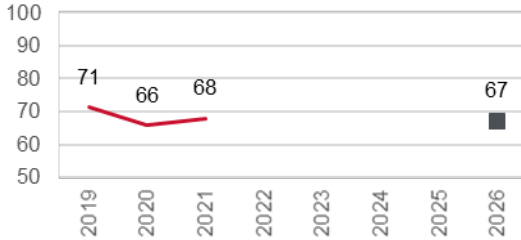
PM1: First-in engine emergency responses within seven minutes to fire incidents (per cent time target is achieved)



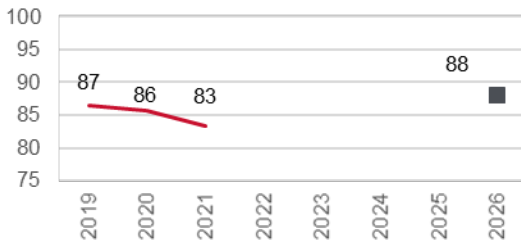
PM2: Arrival of two engines, one aerial unit and a minimum of 12 firefighters within 11 minutes at serious and escalating fires (per cent time target is achieved)



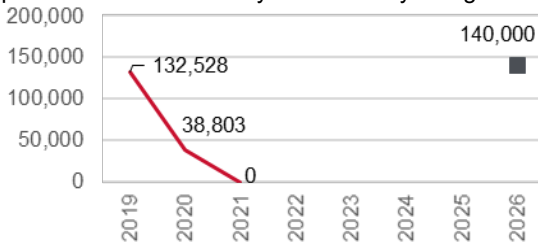
PM3: Flame spread limited to within the room or object of origin (per cent time achieved)



PM4: First-in unit emergency responses within six minutes thirty seconds at critical medical incidents (per cent time target is achieved)



PM5: Number of Calgarians engaged in fire prevention and life safety education by firefighters



Story behind the curve

The percentage of first-in engine emergency responses within 7 minutes is an industry standard measure which indicates the efficiency of emergency response and is a leading indicator of positive outcomes at emergency incidents. While pandemic conditions like decreased road congestion and higher staffing levels due to lower vacation utilization and sick leave contributed to an improvement in response performance, these impacts are evaporating as recovery continues. Future performance reflects improvement strategies that will include technology solutions and apparatus deployment decisions.

Over the past few years the service observed a significant increase in the number of structure fires. The timely assembly of essential firefighting resources at serious and escalating incidents is essential to minimizing losses and ensuring a higher probability of positive outcomes. The expected future performance value reflects persistent challenges facing the service in this area as well as a commitment to exploring different options for improvement during the 2023-2026 cycle.

Flame spread is one way of measuring the effectiveness and impact of timely action by firefighting resources at fires. The expected future performance value was set in alignment with expectations for improvements to response time performance while also considering factors outside the service's control, including building materials, construction type and structural design. While these may impact future performance expectations, improvements to response time performance and resource availability should make it achievable by 2026.

The long-term response target for critical medical incidents is a reflection of best practice emergency medical response that will minimize losses to life safety. During the previous cycle, Fire & Emergency Response observed a marked increase in demand for critical medical response which is expected to continue to challenge service delivery. The service's ability to meet the future expected performance value is contingent upon maintaining adequate availability of frontline resources in alignment with service demand.

Face-to-face interaction with the public has been suspended since March 2020 due to the pandemic response and recovery. The expected future performance value reflects the need to make a concerted effort to re-establish delivery of this service offering while working to implement an engagement strategy that is more resilient to disruptions. The Calgary Fire Department recognizes that the best strategy for fighting fires is education that can prevent them from occurring and is investigating options to re-engage at the community level, including virtual education and outreach beginning in 2023.

What we plan to do

Result for 2023-2026

We will improve service levels for Calgarians by focusing on response times, preparing for new and emerging incident types, and facing the challenge of increasing frequency and severity of incidents while evolving the fire service to meet the demands of the 21st century.

How we are going to get there

Improve emergency response and outcomes at serious fires by decreasing the time needed to assemble essential firefighting resources (two engines, one aerial, and a minimum of 12 firefighters) within 11 minutes at the incident. The service will focus on increasing the number of aerial units deployed across the city and the number of firefighters staffing those units.

Maintain service levels by ensuring adequate staffing levels to balance operational demands including emergency response, community risk reduction initiatives, training and wellness.

Foster an equitable, diverse and inclusive workplace that understands and represents the community served and where staff feel valued and experience a sense of belonging. The service will expand learning opportunities for, and remove barriers to, equity, diversity, inclusion and belonging, explore more equitable recruitment, selection and promotion processes, implement recommendations from The City's Anti-Racism Program, and practice Trauma Informed Leadership.

Improve employee health, wellbeing and resilience by expanding mental health and psychological supports, reducing stigma in the workplace and culture and continuing to support medical health and physical wellbeing.

Enhance service efficiency and effectiveness by leveraging new and emerging firefighting equipment and technology.

Mitigate the environmental impact of fire service delivery by assessing the feasibility of alternative fuel sources to power the heavy fleet while continuing to explore emerging firefighting technology and equipment to mitigate environmental impacts.

Maintain the standard of service delivery by improving processes for frontline firefighters to maintain and enhance the necessary skills and competencies to perform their roles effectively and meet legislated Occupational Health and Safety requirements.

Mitigate risks related to the Green Line project, including construction accidents like tunnel collapses, and the potential for service impacts due to road closures and traffic pattern changes. These risks are new ground for the service and require working with service partners to determine emergency response needs, impacts from construction work, response protocols, training requirements and specialized equipment needs.

Align the expansion of fire service delivery with community growth and development and meet the needs of Calgarians by ensuring that capital assets and infrastructure are timely, adequate, and well-maintained.

Operating budget needed to achieve results

For Council Approval

Breakdown of net operating budget (\$000s)

	2023		2024		2025		2026	
	Base	One-time	Base	One-time	Base	One-time	Base	One-time
Previous Year's Net Budget	241,937		245,113		251,274		267,781	
Previously approved One-time budget		-		-		-		-
2022 One-time carry forward		2,700		-		-		-
Revenue Changes	-	-	-	-	-	-	-	-
Internal Recoveries Changes	-	-	-	-	-	-	-	-
Inflation	449	-	163	-	267	-	136	-
Operating Impact of Previously Approved Capital	-	-	-	-	-	-	-	-
Operating Impact of New Capital (Incremental)	-	-	-	-	7,600	-	-	-
Service Reductions	-	-	-	-	-	-	-	-
Service Increases	2,727	-	5,998	3,300	8,640	3,300	7,440	3,400
Total net budget*	245,113	2,700	251,274	3,300	267,781	3,300	275,357	3,400

*The previous year's One-Time Budget is not carried forward to the following year.

Total Operating Budget (\$000s) for Approval

	2022 Budget	2023			2024			2025			2026		
	At April 30	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total
Expenditures	248,104	250,181	3,085	253,266	256,342	3,685	260,027	272,849	3,685	276,534	280,425	3,400	283,825
Recoveries	(1,705)	(1,705)	-	(1,705)	(1,705)	-	(1,705)	(1,705)	-	(1,705)	(1,705)	-	(1,705)
Revenue	(3,748)	(3,363)	(385)	(3,748)	(3,363)	(385)	(3,748)	(3,363)	(385)	(3,748)	(3,363)	-	(3,363)
Net	242,651	245,113	2,700	247,813	251,274	3,300	254,574	267,781	3,300	271,081	275,357	3,400	278,757
Base	241,937												
One-Time	714												

Note: Figures may not add up due to rounding.

Capital budget needed to deliver service

For Council Approval

Activity	Investment Name	2023 Request (\$000s)	2024 Request (\$000s)	2025 Request (\$000s)	2026 Request (\$000s)	2027+ Request (\$000s)	Total Request (\$000s)
Annual Investment Program(s)							
413020	CFD Heavy Fleet Lifecycle	8,525	8,865	6,865	4,245	-	28,500
411950	Fire Facilities Lifecycle Maintenance	266	266	265	265	-	1,062
480500	CFD Communications Technology Lifecycle	450	300	500	4,000	-	5,250
413000	CFD Light Fleet	1,350	350	400	200	-	2,300
412799	CFD Application Software Lifecycle	500	500	500	200	-	1,700
413040	CFD Equipment Lifecycle	250	-	-	-	-	250
413080	CFD Protective Equipment	1,525	1,525	1,525	1,525	-	6,100
Program(s)							
480508	New Fire Stations	1,000	4,500	10,000	7,000	-	22,500
Projects(s)							
480502	Privacy and Accessibility Project for Fire Stations	469	469	469	469	-	1,876
480509	CFD Green Line Support	2,355	855	505	505	-	4,220
Sub-Total (New Budget Requests)		16,690	17,630	21,029	18,409	-	73,758
Previously Approved Budget Remaining		34,308	30,745	6,000	-	-	71,053
Total Capital Investment		50,998	48,375	27,029	18,409	-	144,811

Explanation of capital budget requests

Annual Investment Program(s)

Activity 413020: CFD Heavy Fleet Lifecycle

Lifecycle of CFD heavy fleet such as engines, aerials and haz-mat vehicles. Replacing fire apparatus in line with established guidelines ensure that firefighters have reliable and necessary apparatus to perform their duties.

Funding From: Lifecycle Maintenance & Upgrade Reserve (\$28,500 thousand)

Contributing Services: None

Operating Impact: None

Activity 411950: Fire Facilities Lifecycle Maintenance

Items for CFD facilities that are outside of the FM facilities agreement. To ensure that ongoing Fire service line needs are met, critical assets are being requested for life cycling such as fences and security items.

Funding From: Lifecycle Maintenance & Upgrade Reserve (\$1,062 thousand)

Contributing Services: None

Operating Impact: None

Activity 480500: CFD Communications Technology Lifecycle

Lifecycle of CFD's communication technology such as radio's and in-cab communications. Life-cycling CFD assets such as fire station alerting and radio systems along with in-cab communications ensure critical continuity of services.

Funding From: Lifecycle Maintenance & Upgrade Reserve (\$5,250 thousand)

Contributing Services: None

Operating Impact: None

Activity 413000: CFD Light Fleet

Lifecycle of CFD light fleet that have reached the end of their life. Replacing front line support vehicles will ensure that front line support staff have reliable vehicles to perform their duties.

Funding From: Pay-As-You-Go (\$2,300 thousand)

Contributing Services: None

Operating Impact: None

Activity 412799: CFD Application Software Lifecycle

CFD relies heavily on functioning software, updates and existing lifecycle renewals will enable improved usability, functionality and analysis. Reliable technology is necessary to meet emergency response requirements for patient records, data reporting and mobile dispatch services.

Funding From: Lifecycle Maintenance & Upgrade Reserve (\$1,700 thousand)

Contributing Services: None

Operating Impact: None

Activity 413040: CFD Equipment Lifecycle

Lifecycle equipment project addresses CFD Capital equipment replacements. Emergency response equipment at the end of its life must be replaced to enable effective and safe service delivery.

Funding From: Lifecycle Maintenance & Upgrade Reserve (\$250 thousand)

Contributing Services: None

Operating Impact: None

Activity 413080: CFD Protective Equipment

This lifecycle project addresses personal protective equipment replacements for firefighters. Ensures employee health, safety and wellbeing while performing duties.

Funding From: Capital Reserves (\$6,100 thousand)

Contributing Services: None

Operating Impact: None

Program(s)**Activity 480508: New Fire Stations**

The purchase of land for permanent stations in Livingston and Belmont stations and the development of Fire Stations in South Shepard (temp), Haskayne (temp) and Belmont ensure that there is effective emergency response delivery to new and growing communities.

Funding From: Municipal Sustainability Initiative (\$4,000 thousand) Developer & Other Contributions (\$18,500 thousand)

Contributing Services: None

Operating Impact: This request requires \$7,600 thousand base funding of operating costs starting in 2025.

Projects(s)**Activity 480502: Privacy and Accessibility Project for Fire Stations**

This renovation project will renovate stations to ensure single use wash/shower rooms for privacy. Ensures that facilities are inclusive and address health and safety as well as efficiency issues.

Funding From: Pay-As-You-Go (\$1,876 thousand)

Contributing Services: None

Operating Impact: None

Activity 480509: CFD Green Line Support

Investment in equipment and training is required to ensure safety of CFD personnel responding to specialized incidents during Green Line construction. The service requires specialty rail and tunnel rescue apparatus and associated training to respond effectively to Green Line incidents.

Funding From: Pay-As-You-Go (\$4,220 thousand)

Contributing Services: None

Operating Impact: None
