



Fire & Emergency Services

2017-2020 Business Plan
& 2017 Budget

Foreword

Mississauga City Council approved **Our Future Mississauga**, the Strategic Plan to achieve our vision over the next 40 years. The strategic vision identified five pillars for change, Move, Belong, Connect, Prosper and Green. The City consulted extensively with residents, staff and stakeholders in developing the Strategic Plan.

The City continues to engage with stakeholders about its programs and services through the City's website, social media, satisfaction surveys and more. This helps ensure citizens have input on the decisions that affect them.

The 2017-2020 Business Plan and 2017 Budget detail how and where the City plans to allocate resources to the programs and services that people rely on every day, while providing good value for taxpayers and supporting the Strategic Plan.

Office of Emergency Management and Fire and Emergency Services Business Plans

The Office of Emergency Management and Fire and Emergency Services are represented as Part I and Part II of this document. The Fire Chief is responsible for both service areas. As the Fire Chief, he is responsible for the delivery of fire prevention and life safety and emergency response as well as all of the units within the division that support those services. As the Director of Emergency Management, he is responsible for preparing the community and the Corporation to be better able to respond to and recover from emergencies and large scale disasters. This includes risk based planning, corporate and community preparedness and business continuity.

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Executive Summary of Office of Emergency Management

Mission: The City of Mississauga takes a coordinated approach to reducing the likelihood, effect and consequences of a major emergency.

Services we provide:

- Maintenance and updates of emergency plan
- Development and implementation of risk-based plans and external plan integration
- Development and delivery of municipal training and exercise programs to internal and external stakeholders based on the City's identified risks
- Critical Infrastructure (CI) identification and protection strategy
- Operation of the Emergency Operations Centre (EOC) - event/emergency communications
- Development and delivery of public education programs
- Development and implementation of business continuity program
- Disaster recovery planning
- Annual legislative compliance

Interesting facts about this service:

- The scope of the Office of Emergency Management (OEM) includes risks such as natural, technological, and human caused threats
- Of all potential hazards referenced in the City's Hazard Identification and Risk Assessment (HIRA), 10 hazards

have been prioritized for further analysis as the probability of occurrence is higher

- More than 200 City staff have been trained on the Incident Management System

Highlights of the Business Plan include:

- Implement a process, through risk based plans, for the prevention, mitigation, response and recovery of the top 10 hazards identified in the City's Hazard Identification and Risk Assessment (HIRA)
- Develop and deliver public education programming that provides preparedness and recovery strategies for the public and other stakeholders
- Establish an Emergency Operations Centre (EOC)
- Utilize and leverage available technology to improve connectivity and interoperability
- Create and formalize a business continuity program that will minimize the impact of emergencies on the corporation
- Maintain compliance with legislation, adhere to guidelines and implement best practice
- Evaluate and implement an internal and public mass notification system

Core Services

Vision, Mission, Goals of Service and Service Delivery Model

Office of Emergency Management

Vision

To Build a Safe and Resilient Community.

Mission

The City of Mississauga takes a coordinated approach to reducing the likelihood, effect and consequences of a major emergency.

Goals of Service

- Develop risk based plans
- Establish an emergency management governance structure
- Develop a resource management plan
- Leverage technology
- Develop public education programs that support risk based plans
- Develop a business continuity program

Service Delivery Model



Achieving our Goals

- Establishment of an Incident Management Structure (IMS) for the City
- Successful preparation for the 2015 Pan Am and Para Pan Am games
- Successful preparation for the 2016 Ontario Summer games
- Improved process for Hazard Identification and Risk Assessment (HIRA) including an update of the existing HIRA
- Improved process for Critical Infrastructure and Protection Strategy
- Trained over 200 employees in various levels of Incident Management
- Successful implementation of IMS (incident management system) at the Hickory Drive explosion



Hickory Drive Press Conference



Director getting the message out at the City Managers Conference



Staff Training

Existing Service Levels, Trends and Efficiencies

Existing Service Levels

The primary role of the Office of Emergency Management (OEM) is to provide support and prepare the community and the corporation to be better able to respond to and recover from emergencies and large scale disasters.

A comprehensive emergency management program is comprised of four interdependent risk-based functions: prevention/mitigation, preparedness, response and recovery.

Prevention & Mitigation

- Proactively eliminate or reduce the impacts and risks/hazards before an emergency or disaster occurs

Preparedness

- Readiness for response to a disaster and to manage its impacts through training and the development of business continuity, disaster recovery, and crisis management plans

Response

- Actions taken for the provision of emergency service and public assistance during, and immediately after an incident in order to protect people, property, the environment, and the economy/services

Recovery

- Reinstatement of a community to an acceptable level through post-disaster actions, such as return of evacuees and reconstruction

Currently, the OEM for the City of Mississauga is responsible for the development and maintenance of a city wide emergency plan and the development of specific risk based plans that assist with planning and response protocol for various types of emergencies. These emergencies can range from weather

related disasters to human health to man-made disasters such as cyber-attacks. These have all been identified in the HIRA.

One of the other critical components of the OEM is corporate preparedness. This is the ability to develop and deliver a number of municipal training and exercise programs to internal and external stakeholders based on the City's identified risks. The OEM trains City of Mississauga staff in various levels of incident management in order to ensure all divisions within the City are prepared to respond to the needs of the community in any disaster situation.

The City has successfully developed and maintained all of the required fundamental documents to meet legislative requirements and is now in the process of developing risk-based plans. In order to achieve this goal, two risk-based plans will be developed annually. The timing and development of these plans will be based on the risks that have been identified in the HIRA to have the greatest impact to the community.



*Ice Storm*Source: Google Images

The community must be aware of potential hazards and be able to take appropriate measures to respond to early warnings. In order to further improve community preparedness, the OEM will work to develop and implement risk specific public education programs to coincide with each of the risk based plans.

Business continuity and disaster recovery are important functions of the OEM. Business continuity is a municipality's capability to continue delivering services at acceptable levels following a major incident where services may have been disrupted. The OEM is developing a process whereby all critical city services will be identified and business continuity plans will be developed for each service.

Future Industry Trends and Considerations:

Emergency Management practices and protocols must evolve in order to match the needs and circumstances of the community it serves. There are a number of factors and trends that will impact the OEM over the next four years.

1. Extreme Weather Conditions

In July 2013 the city was hit by heavy rainfall which caused significant flooding and damage to many homes. In December of 2013, the city was subjected to an ice storm which caused significant damage to infrastructure and the environment. In each of these events critical and essential services were impacted. The City faces the increasing likelihood of similar emergencies related to extreme weather occurring in the future. Preparation to address extreme temperatures, precipitation, flooding and other localized climate related disasters is a priority.

2. Public Awareness

A critical component to achieving public safety goals is encouraging public hazard awareness. The public must be made aware of potential hazards and be prepared to respond to early warnings and take appropriate measures.

3. Vulnerability of Critical Infrastructure (CI)

Critical infrastructure refers to physical and information technology networks by which critical services and information are delivered to people. That includes such things as buildings, roads, technology and pipelines. The Corporation must prepare appropriately to be able to provide recovery services to the public in the event of a major disaster.

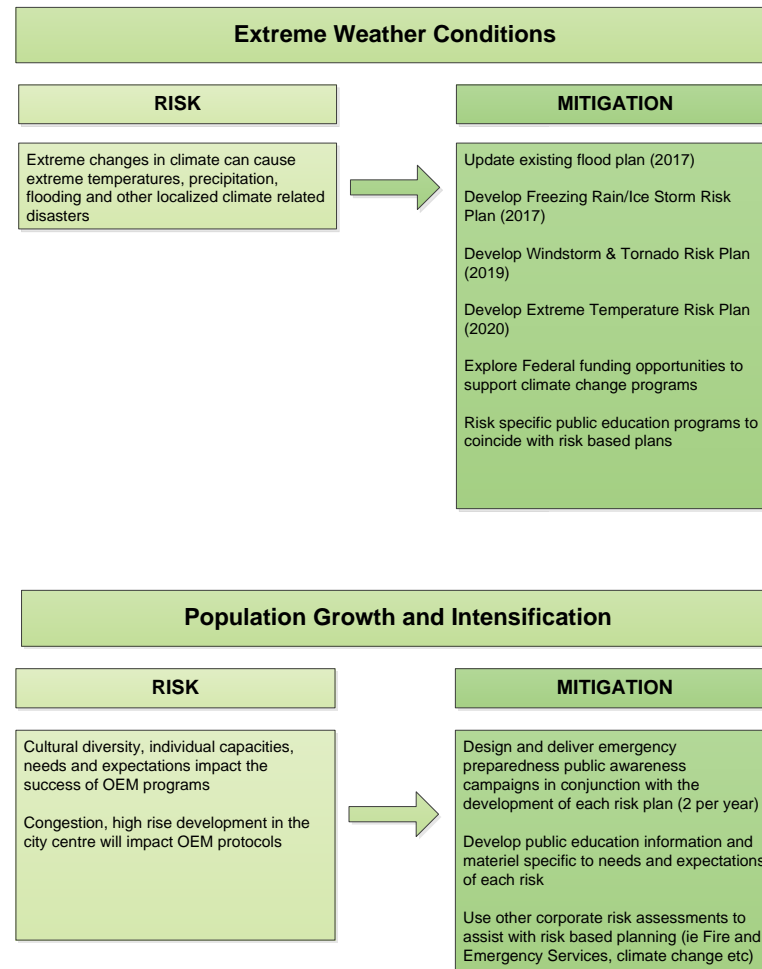
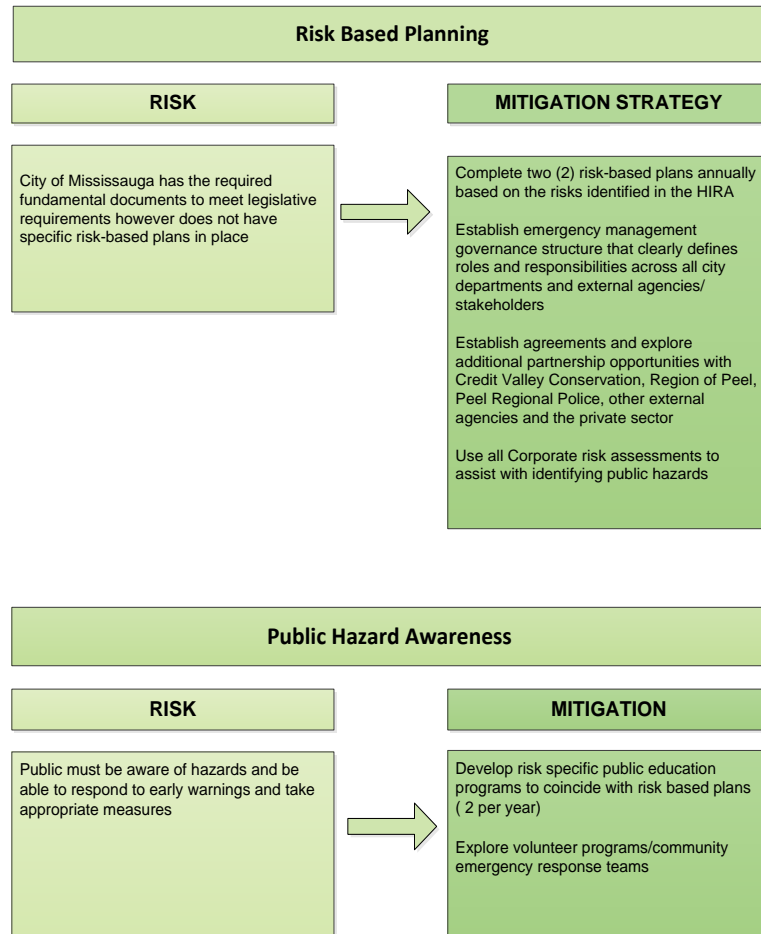
4. Population Growth and Demographics

OEM programming must reflect the demographics, diversity and individual capabilities in order to be successful. The OEM must conduct a regular review of protocols and public information resources in order to ensure they are current, relevant and meet the needs of the community.



*Ice Storm*Source: Google Images

The following illustrates these key issues and associated mitigation strategies:



The 2017-2020 Business Plan Outlook

Planning for the Future

The OEM plans to complete the following over the next four years:

- Complete/update two risk-based plans annually based on identified risks
- Test each risk plan
- Develop a business continuity program
- Improve emergency management governance structure to ensure that it clearly defines roles and responsibilities across all city departments and external agencies/stakeholders
- Establish agreements and explore additional partnership opportunities with Credit Valley Conservation, Region of Peel, Peel Regional Police, other external agencies and the private sector
- Develop and deliver risk specific public education programs to coincide with risk based plans
- Explore volunteer programs/community emergency response teams
- Use Critical Infrastructure (CI) protection strategy to address asset renewal needs, monitor and report on projected asset conditions
- Ensure CI strategy is updated to consider related corporate plans and documents such as the Official Plan, business and master plans, and future capital budget forecasts
- Identify the cause and effect relationship between critical infrastructure sectors and risk
- Ensure effective communication and information sharing between the City and the private sector with respect to CI owned privately in the transportation, health, and public safety sectors
- Ensure effective communication and information sharing between the City and other allied agencies
- Include all stakeholders in the development of specific risk-based plans



IMS Training

Optimizing the Use of Technology

Over this four year planning cycle, the OEM will implement the DisasterLan (DLAN) emergency management technology solution.

DLAN will assist in the tracking, managing, and reporting on all types of incidents and events. It will provide the ability to better communicate with all stakeholders including the public during a large scale emergency.

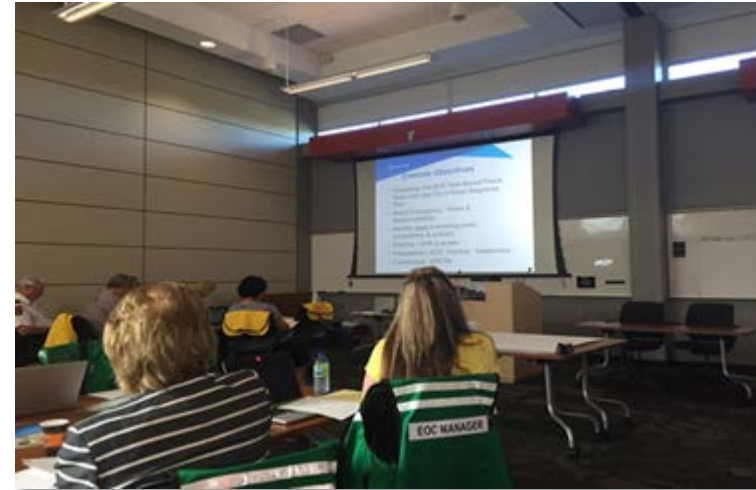
The table below provides the implementation strategy for optimizing the use of technology over the next four years.

Year	Key Initiatives
2017	<ul style="list-style-type: none">• Configure emergency management software (DLAN)• Evaluate mass notification systems (internal & external)• Deliver software training for OEM Staff• Develop dashboard for EMPC staff
2018	<ul style="list-style-type: none">• Provide training and access to DLAN dashboard for EMPC staff• Deliver DLAN software training for EOC staff
2019	<ul style="list-style-type: none">• Deliver DLAN software training for remaining stakeholders• Implement external notification system for EOC Staff
2020	<ul style="list-style-type: none">• Develop and implement External Notification System (General Public)• Test external notification system

Maintaining Our Infrastructure

Establishment of an Emergency Operating Centre (EOC)

An EOC is a location used by an assigned incident management team to manage planned and unplanned events, emergencies and disasters. The City is currently assessing the existing EOC infrastructure to determine the extent to which it requires modifications or updates. This is expected to determine the merits of both designated and dedicated EOC options. The existing model is designated. This means an EOC is set up as required. A dedicated approach would provide a standalone EOC that would be already set up and available when required.



EOC Training

Update Critical Infrastructure Strategy

Critical infrastructure refers to physical information technology facilities, networks, services and assets that if were destroyed or disrupted would have a significant impact on the public.



Municipalities are increasingly more reliant on technology that is frequently disrupted during disasters. The City of Mississauga currently has a Critical Infrastructure Strategy that protects existing infrastructure. The plan must be updated on a regular basis to meet changing community needs and circumstances.

The table below provides the implementation strategy for maintaining our infrastructure over the next four years.

Initiative	Description/Outcomes	Year
Establishment of EOC	<ul style="list-style-type: none">EOC requirements analysisEquipment update	2017
	<ul style="list-style-type: none">Implement EOC requirements identified in EOC assessment	2018-2020
Update Critical Infrastructure Strategy	<ul style="list-style-type: none">Ensure CI strategy is updated to consider related corporate plans and documents such as the Official Plan, business and master plans, and future capital budget forecasts	2017

Managing Our Human Resources

In 2016, two positions were added to the OEM to bring the total staff complement to four. These additional two positions were added with the goal to develop specific risk based plans for each identified hazard and develop a robust business continuity strategy. The OEM will be utilizing interns from post-secondary programs to assist with analysis.

Succession Planning:

OEM will be working with the City's human resources talent management section to develop a workforce planning initiative which will identify critical roles and functions within the unit. This will assist in identifying key people within the organization to help build the future.



Hickory Drive Explosion



Enbridge Response Training Exercise at the Garry W Morden Centre

Linkages to the City's Strategic Plan

move - developing a transit oriented city

- Develop comprehensive Transportation Risk Plan (2018)
- Develop an evacuation and/or traffic plan associated with each risk-based plan
- Ensure effective communication and information sharing between the City and the private sector with respect to the transportation sector

belong - ensuring youth, older adults and new immigrants thrive

- Develop and deliver a comprehensive public education program that provides preparedness and recovery strategies
- Make information pamphlets and other information available in multiple languages
- Develop and deliver public education information specific to needs and expectations of risk

connect - completing our neighbourhoods

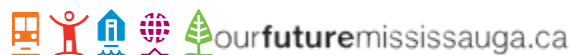
- Update Critical Infrastructure list annually
- Continue to monitor and report on projected asset conditions based on the Critical Infrastructure Strategy
- Develop and update and test risk based plans
- Explore volunteer programs and community emergency response teams
- Explore partnership opportunities with Credit Valley Conservation, Region of Peel, Peel Regional Police, other external agencies and private sector

prosper - cultivating creative and innovative businesses

- Create and formalize a business continuity program that will minimize the impact of emergencies
- Include external stakeholders in the development and implementation of specific risk plans

green - living green

- Continue to develop partnerships to reduce carbon footprint by sharing resources
- Support ongoing green initiatives through public education to help reduce impact of climate induced emergencies
- Explore federal funding opportunities to support climate change programs



Engaging Our Customers

Disaster Response

The OEM is responsible for the emergency preparedness of the City and over the last two years the continued development of this section has produced positive results. This became evident recently when a house explosion escalated into a complex emergency situation that impacted the lives of many people. A Municipal Command Centre was activated and all groups (the City, Police, Paramedics, community groups and utilities) worked under one unified command to mitigate the emergency and ensure that the community's recovery plan was developed and initiated.



Hickory Drive Explosion

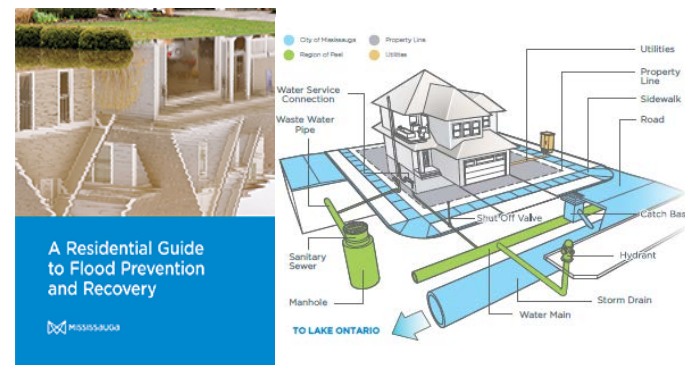
As part of that response the OEM liaised with community groups such as the United Way, the Salvation Army, Red Cross, Peel Region Human Services and others to ensure the community had the resources they required to support them during this very difficult time.



Hickory Drive Public Meeting

Public Education

One of the goals of the OEM over this four year business plan and budget cycle is to develop public education programs to support risk based plans. There will be two per year and they will coincide with the development of risk based plans for hazards that have been identified in the Hazard Identification and Risk Assessment. (HIRA) These programs will provide preparedness and recovery strategies for the public as well as internal stakeholders. For example, the flood risk plan has been developed and to accompany this, the OEM has developed a public education information booklet available online to educate the public in flood preparedness. This booklet identifies the causes and recommends steps for reducing the risks.



Flood Prevention and Recovery guide for residents



Executive Summary of Fire and Emergency Services

Mission: To be a Global Leader in Fire Service and Life Safety Excellence.

Services we provide:

- Fire and life safety education
- Fire safety inspections and code enforcement
- Fire cause determination
- Fire plans examination
- Emergency response
- Emergency dispatch

Interesting facts about this service (2015):

- Mississauga Fire and Emergency Services (MFES) responded to 28,963 emergency calls
- Fire inspectors conducted 10,713 fire safety inspections
- The Public Education section hosted 349 public fire safety events
- 655 training sessions were delivered at the Garry W. Morden Centre
- On duty fire crews visited over 44,000 residences to provide fire safety information to our residents as part of the Home Safe Home program

Highlights of the Business Plan include:

- Develop a lifecycle replacement program for fleet, facilities and equipment that will balance operational requirements and financial feasibility
- Develop and deliver community outreach programs that help foster community interest and involvement
- Assess new and existing technology that facilitates effective and efficient service delivery

- Develop a comprehensive community based risk assessment to identify and prioritize risks and threats
- Develop community risk reductions plans for each risk and threat
- Create a long term total health strategy for staff



Home Safe Home Visit

Net Investment (000's)	2017	2018	2019	2020
Operating	105,128	109,870	112,787	114,467
Capital	8,639	11,109	8,886	7,223
Full Time Equivalents	718.5	742.5	744.5	744.5

Core Services

Vision, Mission, Goals of Service and Service Delivery Model

Fire & Emergency Services

Vision

To be a Global Leader in Fire Service & Life Safety Excellence.

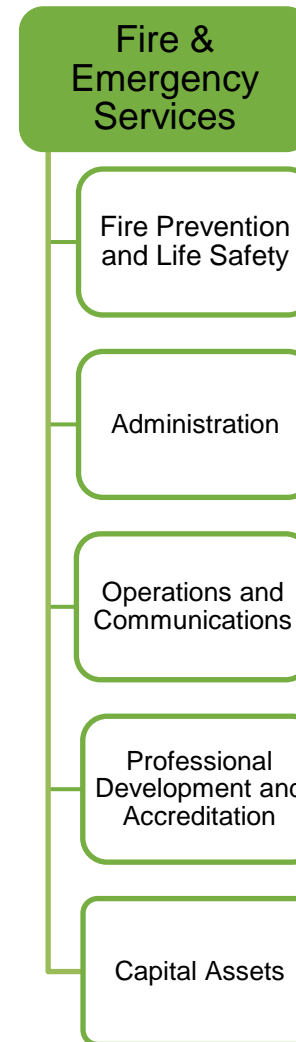
Mission

To protect life, property and the environment in Mississauga from all perils guided by the three lines of defense, public fire safety education, fire safety standards and enforcement and emergency response.

Goals of Service

- Achieve community safety guided by the three lines of defense – Public fire safety education, Fire safety standards and enforcement and Emergency response
- Develop community outreach and public education programs
- Balance resources to identified risk through effective risk based planning
- Foster a healthy, safe, inclusive and respectful culture
- Build leadership capability and create opportunities
- Continue to use and develop practices that promote financial and business sustainability

Service Delivery Model



Achieving our Goals



Total Health Strategy

Leaders in mental health training for staff with the Road to Mental Readiness implementation.



United Way

Participated in many corporate events to raise money for the United Way.



Camp Ignite

Hosted a week long camp for girls ages 15 to 19 to expose them to what a career in the fire service might be like.



Community Foundation of Mississauga - Dancing with the Stars fundraising event raised over \$13,000 for community programs.



Community Fundraising

MFES hosted several community open houses in conjunction with the Red Cross to support the residents of Fort McMurray that have been displaced.



Opening of new Fire Station 119 – Co-location with Peel Regional Paramedic Services.



Public Education

Conducted almost 350 public safety education events across the city.



Lean – Fire Plans Examination

Completed a Lean Review of Fire Plan's Examination with the goal to improve customer service and streamline business processes.

Awards and Recognition

- Received the 2015 Diversity and Inclusion Award from Fire Service Women Ontario in recognition of MFES participation in initiatives that foster a culture of respect, equity, inclusion and diversity in the Fire Service
- As part of Mayor Crombie's city wide food drive, collected 148,900 pounds of food for the Mississauga Food Bank
- MFES auto extrication team received 1st place overall at the 2015 North American Rescue Challenge and 2nd place overall at the 2015 Ontario Vehicle Rescue Challenge
- Firefighter Nelson Anastacio was recognized by the Mississauga Real Estate Board and received the Firefighter of the Year for his tireless fund raising effort to purchase computers and electronic equipment for children at Sick Kids hospital oncology department



Award winning auto extrication team



Nelson Anastacio cheque presentation at Sick Kids



Mayor Crombie's City-Wide Food Drive

Existing Service Levels, Trends and Efficiencies

Existing Service Levels:

Mississauga Fire and Emergency Services is made up of five sections that work together to provide service to the City of Mississauga.

- Fire Prevention and Life Safety
- Administration
- Operations and Communications
- Professional Development and Accreditation
- Capital Assets
- The goal is to provide an approach to service delivery that effectively balances public fire safety education, fire safety standards and enforcement and emergency response

Fire Prevention and Life Safety:

This is a critical component of MFES delivery model. This section performs four very important functions:

- Public fire safety education
- Fire safety inspections and code enforcement
- Fire plans examination
- Fire cause determination

Public Fire Safety Education:

Public education is a legislative requirement under *Fire Protection and Prevention Act*. The Act states that every Fire Department in the Province must have a public fire safety education program. Public education is the preferred way to reduce fire and other emergency incidents. Residents must be

encouraged to take responsibility for their own fire safety and to take the steps necessary to prevent fires. MFES provides many public education opportunities over the course of each year.

There are programs designed for older adults, school aged children, special interest and social and industrial groups. The programming is geared to provide a range of fire prevention, life safety, injury prevention, and fire safe learning behaviors.

MFES has staff that specializes in public education.

Fire crews are also actively involved in providing public education opportunities such as the Home Safe Home program, station tours and truck visits.

In 2015, MFES Fire Prevention and life safety staff delivered 349 education opportunities reaching 19,466 residents.

Fire Safety Inspections

The purpose of a fire inspection is to ensure that home and business owners are fulfilling their obligations and meeting their responsibilities as regulated by the Ontario Fire Code.

MFES is legislatively responsible for conducting fire safety inspections to ensure public safety. The frequency of inspections is an important issue and directly impacts the level of fire safety and code compliance of properties. Of particular concern are vulnerable occupancies. These include care and treatment facilities and retirement homes. In 2015 all vulnerable occupancies in the City were inspected and fire drills were conducted to ensure the safety of residents within these facilities. Additionally, a 48 hour customer service standard has been established to validate public and suppression crew complaints.

Year	Number of Fire Safety Inspections
2013	9,183
2014	10,102
2015	10,713

Fire Plans Examination

Fire plans examination ensures that all assigned fire and life safety requirements of the Ontario Building Code, Ontario Fire Code matters are addressed prior to the issuance of a building permit. These include such things as fire alarm systems, automatic fire sprinkler systems, emergency power systems, emergency lighting systems, hose and standpipe systems, hazardous processes/operations and protection, smoke control systems and high-rise fire safety measures.

The Plans Examination section adopted Lean principles and within the first quarter of 2016 was meeting legislative deadlines 98.4 per cent of the time. Improved customer service and streamlining business processes has enhanced the service delivery in this section.

Year	Number of Complete Applications submitted	Number Completed within deadline	% of time legislated deadline met
2014 (Q1)	258	209	81%
2015 (Q1)	308	284	92%
2016 (Q1)	257	253	98.4%

Fire Cause Determination

Fire investigation is the compilation and analysis of information related to fires and explosions. Investigations are conducted to determine the area of origin and cause. This information is used to determine trends and assists MFES in the prevention of similar incidents as well as developing fire safety education programming. In 2015 Fire Prevention and Life Safety Section conducted 77 major fire investigations.

Administration

The administration section is responsible for strategic planning, business planning, budget, data collection and analysis. The primary function is to ensure that all services are delivered in a superior cost effective way and to anticipate, initiate and manage change effectively.

Operations and Communications

Operations

The section operates 24 hours a day, 365 days a year with 616 full time staff operating on four shifts.

In order to deliver the required services, MFES has 20 strategically placed fire stations throughout the City of Mississauga. There are 30 front line vehicles consisting of 16 pumpers, eight aerials and six squads. MFES is an 'all hazards' fire department and responds to many types of emergency incidents such as:

- Fire Response - structure fires including single family detached and semi- detached homes, multi-unit residential, institutional (schools), commercial and industrial buildings and shore based firefighting for boat fires at marinas
- Rescues - automobile extrication, industrial accidents, and home accidents
- Medical Response - calls to 911 are evaluated by dispatchers at the ambulance service and MFES responds in support of Peel Regional Paramedic Services based on a Tiered Response Agreement
- Hazardous Materials Response - specialized training and equipment to analyse and mitigate responses to chemical, biological, radiological, nuclear and explosive incidents
- Technical Rescue – ice, fast water, and rope rescue incidents

Emergency response is measured and assessed against the National Fire Protection Association (NFPA) guidelines. The table below illustrates how often MFES meets the standard for two key performance indicators. Travel time captures how long it takes from the time the truck leaves the station until it arrives on the scene. Total response time captures how long it takes from the call is received to the time the truck reaches the scene.

Measure	Target	2015 Actual % of time met (at Dec 31 2015)
Travel Time	4 min 90% of the time	60%
Total Response Time	6 min 20 sec 90% of the time	73%

Communications (dispatch):

This section also operates 24 hours a day, 365 days a year. The primary focus is answering emergency calls and dispatching fire emergency vehicles to an emergency. This followed by radio support for crews throughout the course of the incident. This may include the dispatching of additional vehicles or securing other resources to assist.



Hose training at the Garry W. Morden Centre

Capital Assets

This section is responsible for fleet, facilities and equipment.

Fleet

MFES fleet consists 80 vehicles, 30 front line apparatus, nine reserve apparatus and seven unstaffed emergency specialty vehicles equipped for, command, technical rescue, hazardous material, water tanker, trench rescue and two response support vehicles. The balance of the fleet is made up of 34 smaller service vehicles. The replacement value of the fleet is estimated at approximately \$40 million.

Currently MFES has a heavy fleet replacement schedule in place that reflects a lifecycle of 15 years as a front line apparatus and five years in reserve. Through appropriate care, maintenance and refurbishment, this schedule has been maintained for over 35 years. During the first half of 2016 an extensive review of the replacement schedule was conducted. As a result of the review it was recommended that the new replacement schedule reflect 12 years front line and three years reserve. This schedule ensures the vehicles remain in good operating condition, are safe and reliable to perform for fire fighters responding to the scene of an emergency and is able to pass the Ministry of Transportation-Ontario (MTO) annual certification inspection.

Facilities

Facilities maintenance staff provides ongoing routine building maintenance and demand repair services for the 23 fire facilities. In conjunction with the addition of new infrastructure, MFES has eight fire stations that require some form of rehabilitation. The renovations for each station vary depending on the age and location. They will include such things as barrier free washroom facilities, female washroom facilities, structural repairs, the addition of a generator, upgrades to meet the accessibility guidelines, and upgrades to meet health and safety requirements.

Most of the fire stations have had no major rehabilitation or significant structural changes since their construction. As the City continues to grow, modifications are required to accommodate changes to both staffing and public accessibility.

Equipment

This unit is responsible for equipment inventory and supply. Required equipment is purchased and distributed by unit staff. Equipment includes items such as personal protective equipment, bunker gear, self-contained breathing apparatus (SCBA), helmets, technical rescue equipment, hoses, nozzles and many other items which are critical to fire operations.

Professional Development and Accreditation

This section is responsible for the development and delivery of training programs to ensure all staff are properly trained in all disciplines. This includes emergency response, inspection and code enforcement, and public education. Guided by identified community risks and using recognized best practices and standards, training professionals will provide programs that enhance staff capabilities. Innovative, safe and efficient solutions will prepare MFES to become global leaders.



LEFT: High Angle Training at the Garry W Morden Centre



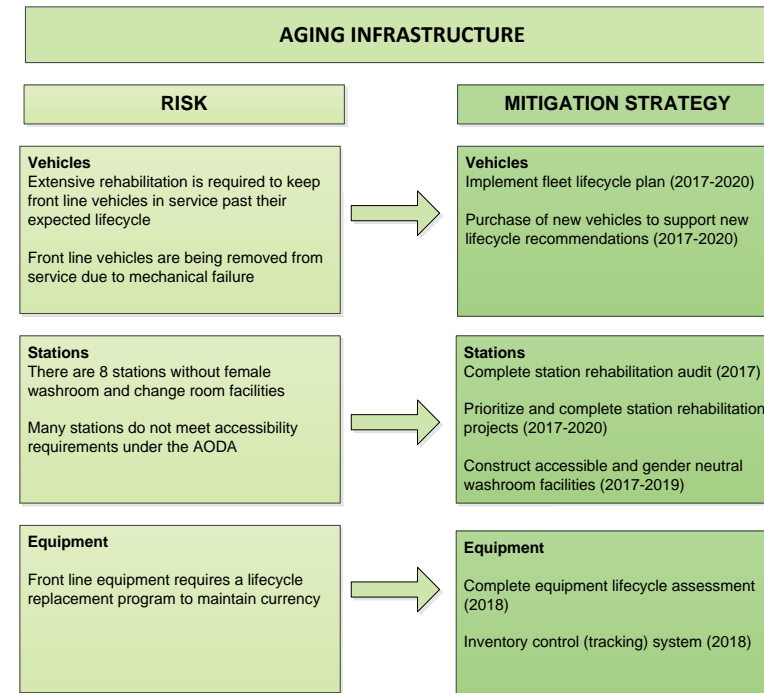
RIGHT: Hose Training

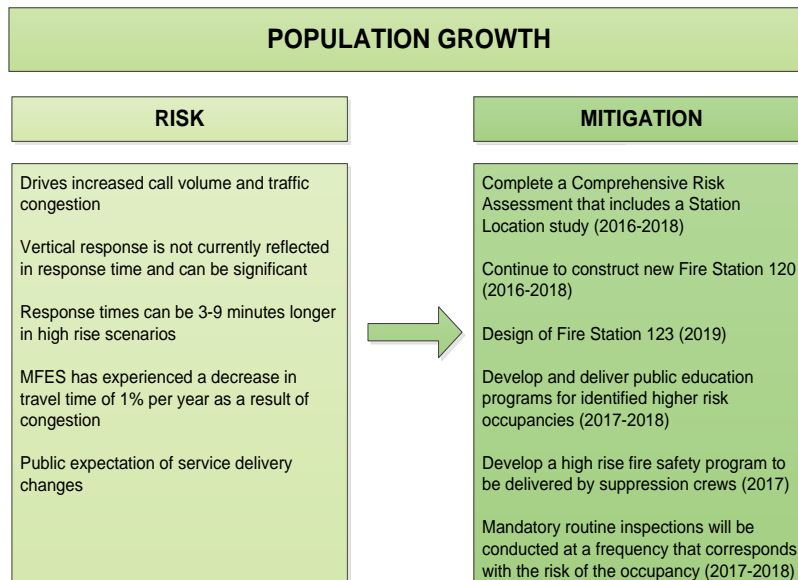
Future Industry Trends and Considerations:

There are five key hot button issues to be addressed over this four year plan which will be critical to meeting the service area goals.

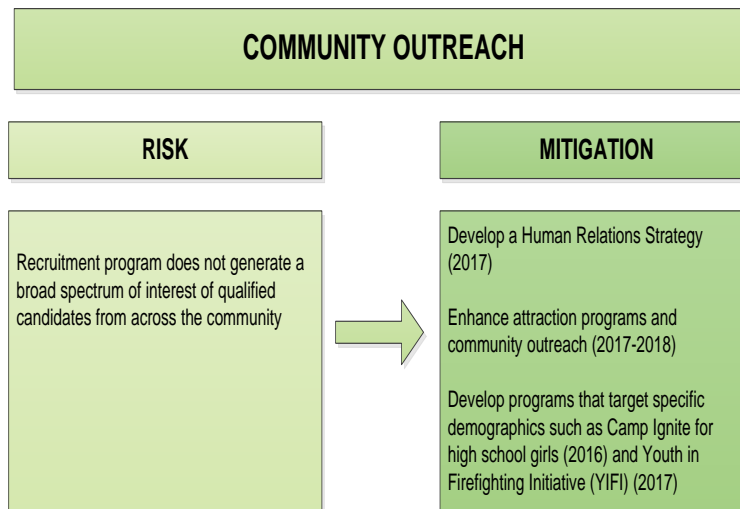
- 1) Aging Infrastructure
- 2) Population Growth
- 3) Community Outreach
- 4) Staff total wellness
- 5) Frequency of fire safety inspections

The following illustrates these key issues and associated mitigation strategies:





Mississauga City Skyline Source: Twitter



Camp Ignite participants with Chief Beckett and Mayor Crombie



Inspecting Building Systems

DEFICIENCY IN INSPECTION FREQUENCY

RISK

Inspections are not conducted at a frequency that reinforces the importance of code compliance

MITIGATION

Implement a more frequent inspection cycle for occupancies that are deemed higher risk (2018-2019)

Mobile field technology hardware implementation (2017)

Mobile field technology software implementation (2018)

Complete all fire safety inspections promptly when required (2017-2020)

Development of formal inspection policy

STAFF MENTAL HEALTH AND WELLNESS

RISK

First Responders are at the greatest risk of being impacted by some form of mental illness.

MITIGATION

Continue to implement Road to Mental Readiness (R2MR) programming (2017)

Create a long term Mental Health Strategy (2017-2018)

The 2017-2020 Business Plan Outlook

Planning for the Future

The 2014 Future Directions Master Plan for Fire and Emergency Services currently provides a framework that defines service delivery requirements and reflects current community and industry expectations. The goal of this plan was to provide an approach to service delivery that effectively balances fire prevention, public education and emergency response.

It is expected that an update to the Future Directions Master Plan will be completed in 2018. MFES will be embarking on a number of continuous improvement initiatives which will inform Future Directions.

Comprehensive Risk Assessment

The goal of this project is to identify all of the existing community risks and undertake a gap analysis. The objective is to identify risks and vulnerabilities related to the delivery of fire and emergency services in the City of Mississauga. It will also provide recommendations that include risk mitigation strategies and associated resource requirements including technology, staffing and equipment solutions. The risk assessment will be a guide to the strategic planning and management of Fire and Emergency Services programming and community engagement. It will also inform other strategic documents and studies such as Future Directions.

Commission on Fire Accreditation International (CFAI) Accreditation

CFAI has been working with fire departments for over 15 years to provide a set of international performance criteria for communities to be able to evaluate their current level of service. This model relies on self-assessment and evaluation to assess internal performance and compare to industry best practices. There are several other urban fire departments in Ontario who

are either accredited or on their way to being accredited. MFES has committed to be one of those departments.

Lean

MFES has completed two Lean greenbelt projects. The first was in early 2015 and examined the Fire Plans Examination process. The second was in early 2016 and reviewed the equipment inventory and distribution process. Both these projects resulted in significant process improvements, better customer service and engaged staff. MFES is committed to completing additional projects over the course of this business planning cycle.



Plans Examination Lean Greenbelt Kaizen Event

Optimizing the Use of Technology

MFES has considered areas where technology can build capacity, improve processes and create efficiencies. Four major initiatives have been identified for the 2017-2020 budget cycle are:

- Mobile Field Technology
- Automated Staffing and Reporting Technology
- Remote Training and Information Displays
- Computer Aided Dispatch Replacement

Mobile Field Technology

The goal of this initiative is to acquire field automation for MFES front line staff that will enhance the delivery of inspection and enforcement services, increase productivity of staff in the field, facilitate the move toward real time data access and improve service delivery to clients. For operations staff, this technology will supply mission critical information during emergency situations.

Automated Staffing and Reporting Technology

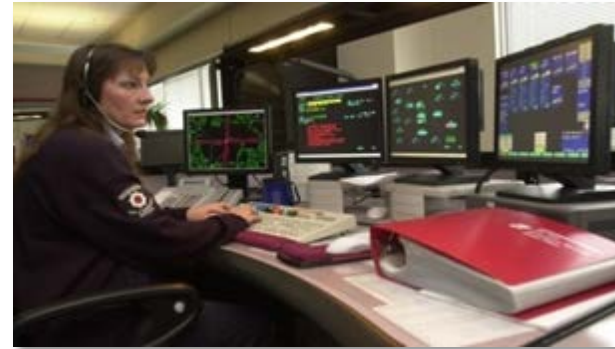
The goal of this initiative is to obtain an automated staffing software system that will more effectively manage the issues associated with staffing across 23 facilities including 20 fire stations and four shifts. This technology will not only assist with staffing and deployment but will also enhance reporting capabilities.

Remote Training and Information Displays

Information displays centrally located within the fire stations will facilitate information dissemination across 23 fire facilities. This will include online training modules and public education information. This initiative will reduce travel time associated with training and allow crews to complete the training modules as a team in their own station.

Computer Aided Dispatch (CAD) Replacement

CAD is an incident management software system which includes call handling and dispatching, intelligent mapping, field communications, data reporting and analysis and application integration. The current system is dated and an upgrade of the system is required to ensure continued reliability of routing, dispatching and data information capture.



Dispatching a call

The table below provides the implementation strategy for optimizing the use of technology over the next four years.

Initiative	Year
Mobile Field Technology <ul style="list-style-type: none"> Provide field automation to MFES front line staff will enhance the delivery of Inspection and Enforcement Hardware purchase and installation (2017) Software installation (2018) 	2017-2018
Automated Staffing and Reporting Technology <ul style="list-style-type: none"> This technology will more efficiently schedule staff over 20 stations and 4 shifts Technology purchase (2017) Implementation (2018) 	2017-2018
Automated Remote Training and Information Displays <ul style="list-style-type: none"> Up-to-date MFES training information, public education and live streaming of data to stations 	2017
CAD Replacement <ul style="list-style-type: none"> This upgrade is critical to ensure continued reliability of routing, dispatching and data information capture. The current system is well past its reasonable lifecycle 	2017-2020

Maintaining Our Infrastructure

Over the next four years MFES will place a high priority on the condition of front line fleet, fire stations and equipment.

Front Line Vehicles

Front line vehicles are being removed from service as a result of mechanical conditions which fail to meet legislative safety requirements. Many of the front line vehicles are past their reasonable lifecycle replacement dates. The age of the vehicles combined with increased call volume has led to vehicles experiencing mechanical deterioration issues at a greater frequency.

After a thorough review MFES recommends a model that includes 12 years front line and three years in reserve for a total lifecycle replacement of 15 years for all heavy frontline emergency response apparatus. Versions of this model are also used by many other urban, full time fire departments.

Further, the Apparatus and Maintenance Unit of the Capital Asset Section will ensure an aggressive preventative maintenance program that will allow a more frequent thorough inspection on each apparatus and will implement improved corrosion prevention treatments.

The assumption is that newer trucks, with shorter 'in service' lifecycles should result in fewer mechanical issues. It will also build capacity within existing staff to proactively inspect and maintain vehicles on a more frequent basis.



Aerial 105

Fire Stations

Fire stations are in operation 24 hours a day, seven days a week, 365 days a year and for this reason are subject to a greater degree of wear and tear.

MFES has eight fire stations that require some form of rehabilitation. The renovations for each station vary depending on the age and location. They include such things as barrier free washroom facilities, female washroom and change room facilities, structural repairs, the addition of a generator, upgrades

to meet the accessibility guidelines, and upgrades to meet health and safety requirements.

Most of these stations have had no major rehabilitation since construction. As the City continues to grow, modifications are required to accommodate changes to both staffing mix and public accessibility.

Equipment

MFES has an inventory of equipment valued at approximately \$10 million. This equipment includes personal protective equipment, technical rescue equipment, hoses, nozzles and many other items.

MFES requires consistent, ongoing investment in fire equipment to maintain items within their recommended lifecycle requirements. Lack of sustainable funding means assets are acquired or replaced as funding becomes available. This results in peaks and valleys in asset acquisitions that result in service delivery gaps. Looking ahead, MFES will consider a full lifecycle review of all equipment and recommend a practice that allows for a more predictable and consistent funding process.

The table below provides that implementation strategy for maintaining MFES infrastructure over the next four years.

Initiative	Description	Year
Station 120 Construction	<ul style="list-style-type: none">Construction of station at Hurontario and Eglinton (2017)Opening (staffing) (spring 2018)	2017 - 2018
Fleet Lifecycle Replacement Strategy	<ul style="list-style-type: none">Purchase stock vehicles to address immediate needs (2016)Complete assessment which will identify the optimal time to replace a vehicle and associated capital costs (2016)Begin purchase of vehicles based on recommended schedule (2017-2020)	2016-2020
Fire Station Rehabilitation Assessment	<ul style="list-style-type: none">Complete station audit for all 20 stations (2017)Prioritize rehab projects based on audit recommendation (2017)Begin rehab projects (2017 – 2020)	2017-2020
Equipment Lifecycle Replacement Strategy	<ul style="list-style-type: none">Complete assessment which will identify the optimal time to replace equipment and associated capital costs (2018)Prioritize equipment replacement (2018)	2018-2019

Managing Our Human Resources

One of the long term goals is to continue to provide programs that contribute to the wellbeing of MFES staff. There a number of initiatives that are currently underway and will be a focus of the 2017-2020 Business Plan.

Succession Planning

MFES is working closely with the City's human resources talent management section to complete a workforce planning initiative which will identify critical roles and functions within all sections of MFES. This will assist in identifying key people within the organization to help build the future.

Attraction and Recruitment

MFES will follow inclusive recruitment practices that consider the needs of the community with a goal to attract and select the best and most qualified candidates. With this in mind, MFES has already initiated a series of community outreach programs to help foster community interest and involvement. In August 2016, MFES hosted the first annual Camp Ignite. This is a camp that allowed teenaged girls, ages 15 to 19, experience the basics of firefighting. The camp was a huge success and the expectation is to deliver similar types of community outreach programming over the next four years to encourage community interest and involvement.



Camp Ignite 2016

Officer Development Program

This program will be developed to ensure staff receive the appropriate leadership training prior to being promoted to the Captain rank or higher. It will ensure staff have up to date training in core competencies and will support the development and maintenance of new skill sets.

Mental Health Strategy

MFES was the first career fire department in Ontario to offer the Road to Mental Readiness (R2MR) program to its supervising officers through the Ontario Association of Fire Chiefs. This program deals with the stigma that often surrounds mental illness and increases resiliency. MFES is using the National Standard for Psychological Health and Safety to shape our mental health strategy and programs like the Road to Mental Readiness will enable us to meet our legislated requirements under Bill 163.

The following table provides that implementation strategy for managing our human resources over the next four years.

Initiative	Description	Year
Succession Planning	<ul style="list-style-type: none">In partnership with the Human Resources Talent Management Section, complete a workforce planning strategy	2017 – 2020
Attraction and Recruitment	<ul style="list-style-type: none">Initiate community outreach programs to foster community interest and involvementHost open houses at fire facilities throughout the City to promote recruitment/attraction	2017-2020
Officer Development Program	<ul style="list-style-type: none">Develop a program for Captain rank or higher to receive appropriate leadership training prior to promotion	2017-2018
Mental Health Strategy	<ul style="list-style-type: none">Continue to deliver R2MR program to all staff in MFES	2017-2020

The following table provides that implementation strategy for managing our human resources over the next four years.

Initiative	Description	Year
Comprehensive Risk Assessment	<ul style="list-style-type: none"> Identify existing community risks and undertake a gap analysis to identify vulnerabilities Outcomes will include risk mitigation strategies 	2017-2018
Commission on Fire Accreditation International (CFAI) accreditation	<ul style="list-style-type: none"> Evaluation of current level of service Assess internal performance and compare to industry best practice 	2018-2019
LEAN	<ul style="list-style-type: none"> Train all staff in LEAN white belt training Continue to use LEAN methodology to improve business processes with MFES 	2017-2020



Live Fire Training at the Garry W. Morden Centre

Linkages to the City's Strategic Plan

move - developing a transit oriented city

- Plan infrastructure to mitigate travel time and reduce time that emergency vehicles are on the road
- Ensure training programs are in place to address changes to service delivery resulting from the implementation of the LRT and pedestrian friendly design

belong - ensuring youth, older adults and new immigrants thrive

- Fire Safety pamphlets and other information available in multiple languages
- Enhance public education opportunities and educational programs to reflect changing demographics
- Develop outreach attraction/recruitment programs

connect - completing our neighbourhoods

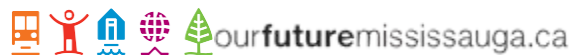
- Balance public fire safety education, fire safety standards and enforcement and emergency response to mitigate increasing response time
- Ensure that all new buildings comply with Ontario Building Code and Fire Code requirements through comprehensive plans examination
- Encourage targeted public education opportunities
- Make changes to service delivery in the City Centre to address, pedestrian friendly design elements, Light Rail Transit (LRT), building stock and legislative requirements

prosper - cultivating creative and innovative businesses

- On duty suppression crews conduct fire safety inspections of mercantile, commercial and industrial occupancies to ensure safety systems are in place and operate as intended
- Targeted public education opportunities for commercial and industrial occupancies
- Implement a more frequent inspection cycle for occupancies that are deemed higher risk

green - living green

- New facilities designed to Leadership in Energy and Environmental Design (LEED) standards
- Consideration given to LEED when retrofitting existing buildings at the time of the renovation
- Continue to develop partnerships to reduce carbon footprint by sharing resources
- Continue to consider flexibility of fuel options as part of the fleet replacement program
- Continue to review and provide Hydrogen Cyanide monitoring, hazardous material mitigation and decontamination practices



Engaging Our Customers

Public Education by Operations Staff:

MFES utilizes all 616 operations personnel to help deliver public fire safety education information to the community. As operations is the largest group in fire, providing all of these programs using on duty operations staff allows MFES to reach a large number of residents quickly and effectively.

Some of these programs are:

In Company Inspections - Fire safety inspections of mercantile, commercial and industrial occupancies within their respective response areas.

Tactical Surveys - Tactical surveys that familiarize crews with higher risk occupancies such as nursing homes, schools and apartment complexes in their response area.

Home Safe Home - Suppression crews visit homes in their assigned response area to provide valuable fire safety information.

Post Fire Community Blitz - Crews distribute public education material and answer questions in neighbourhoods that have had a fire in the immediate vicinity.

Station Visit - Firefighters deliver public education information and tours of the station to visiting groups such as elementary school students, boy scouts, preschool groups and new immigrants.

Vehicle Visit - Front line vehicles can be requested to attend community functions such as school fairs and parades. Elementary schools request truck visits in order to assist with the risk watch program and the firefighter in the community program.

Public Education by Fire Prevention and Life Safety Staff:

MFES Fire Prevention and Life Safety Public Education staff conduct over 300 public education programs to various customers annually. The following are some of those programs.

Evacuation Drill - This program is a mock evacuation drill and is offered to companies who are working to develop an approved Fire Safety Plan.

Fire Extinguisher Training - A hands on training session for employees of industrial, commercial and institutional occupancies to learn the safe and correct procedure for operating a portable fire extinguisher.



Public Education Trailer

Fire Warden Training - This course trains fire wardens in the proper execution of an emergency evacuation as outlined in the Fire Safety Plan.

Firefighter in the Community - This program is designed for the pre-schooler and teaches children about the basic of fire safety.

High Rise Safety - Home fire safety program specialized for residents of high rise buildings. The evacuation procedure for residents is emphasized in this program.

Risk Watch - Risk Watch is an injury prevention program designed for children in preschool through grade eight. Children learn to recognize risks and take appropriate actions to avoid eight preventable injuries, including fires and burns.



Students learning about Auto Extrication Source: Twitter



Open house at Station 106 Source: Twitter

Proposed Operating & Capital Budgets

Office of Emergency Management and Fire and Emergency Services

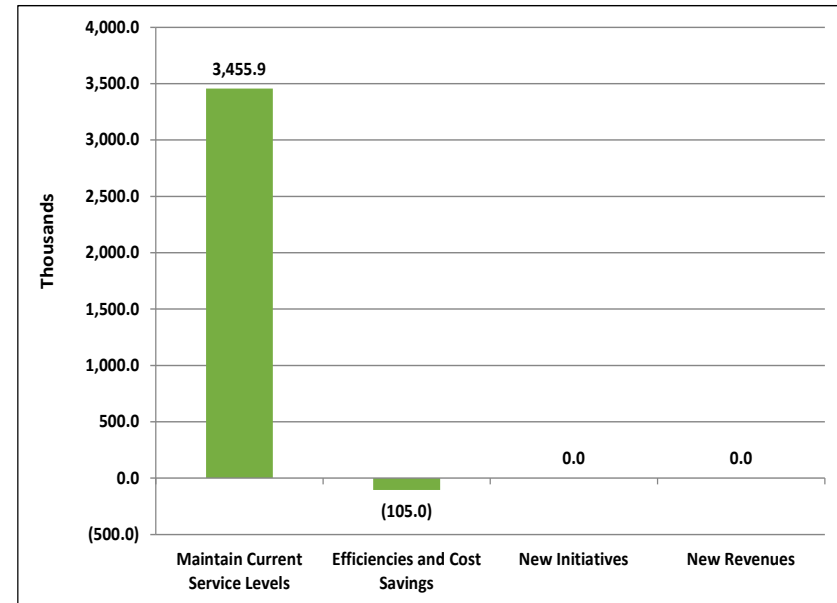
This part of the Business Plan sets out the financial resources required to deliver the proposed 2017-2020 Business Plan. Information is provided by major expenditure and revenue category as well as by program. The costs to maintain existing service levels and operationalize prior decisions are identified separately from proposed changes. The prior year budget for Fire and Emergency Services in 2016 was \$101.7 million and the proposed budget for 2017 is \$105.2 million. Included in this amount is \$621,000 related to the operation of the Office of Emergency Management (OEM).

Total Changes to Maintain Current Service Levels

The impact of maintaining current service levels for Fire and Emergency Services reflects an increase of \$3,455,867 for 2017. Highlights of the proposed budget changes are:

- Labour costs are projected to increase by \$3 million
- Increased cost of bunker gear cleaning and inspections and personal protective equipment as per additional requirements within the Occupational Health and Safety Act
- Increase cost of operating existing programs such as the EPI Pen program (replacement of expire EPI pens) and pet therapy kit equipment
- Cost to implement recommendations related to Ontario Fire Marshal and Emergency Management (OFMEM) Review of Fire Prevention and Life Safety
- Other administrative changes related to staff training
- Annualization costs of \$262,000 for MFES and OEM staff hired in the following areas: Public Fire Safety Education, Fire Plans Examination, Professional Development and Accreditation and Emergency Management Planning and business continuity

Proposed Changes to 2017 Net Operating Budget by Category (000's)



Efficiencies and Cost Savings

MFES is anticipating additional revenue related to external training at the Garry W. Morden Centre as well as cost savings from the termination of the lease at the previous station 119 when it was relocated to a city owned facility.

New Initiatives

There are no new initiatives impacting the operating budget for 2017. MFES will be looking ahead in the four year plan to request funding for new fire station 120. This station is being built in the Hurontario and Eglinton area to support growth and mitigate inadequate response times. Population growth is the driver behind the majority of the funding requests over the next four years. Consideration will be given to the units within MFES that support the front line operations such as mechanical, equipment and training.

Operating

The following table identifies the budgeted and forecasted operating expenditures and revenues for 2017-2020, the 2016 budget as well as 2015 actuals by major program within the service area.

Proposed Budget by Program

Description	2015 Actuals (\$000's)	2016 Budget (\$000's)	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)
Expenditures to Deliver Current Services						
Fire Building Maintenance	1,119	1,347	1,271	1,300	1,320	1,343
Fire Support Services	6,847	7,576	7,846	8,005	8,129	8,241
Fire Vehicle Maintenance	2,882	3,288	3,416	3,452	3,474	3,496
Prevention	5,202	6,157	6,701	6,812	6,902	6,993
Suppression	82,584	85,079	87,693	89,500	90,965	92,262
Total Expenditures	98,634	103,446	106,927	109,069	110,791	112,336
Revenues	(1,704)	(1,669)	(1,799)	(1,799)	(1,799)	(1,799)
Transfers From Reserves and Reserve Funds	0	0	0	0	0	0
New Initiatives and New Revenues			0	2,600	3,795	3,930
Proposed Net Budget Including New Initiatives & New Revenues	96,930	101,778	105,128	109,870	112,787	114,467
Expenditures Budget - Changes by Year			3%	2%	2%	1%
Proposed Net Budget - Changes by Year			3%	5%	3%	1%

Note: Numbers may not balance due to rounding.

Summary of Proposed Budget

The following table provides proposed budget changes further defined into more specific categories. It identifies changes in labour, operating costs and revenues to maintain existing service levels, efficiencies and cost savings, the cost increases arising from prior year decisions, special levies and new initiatives.

Description	2016 Approved Budget (\$000's)	Maintain Current Service Levels	Efficiencies and Cost Savings	Annualized Prior Years Budget Decisions	Operating Impact of New Capital Projects	Proposed New Initiatives And Revenues	Special Purpose Levies	2017 Proposed Budget (\$000's)	\$ Change Over 2016	% Change Over 2016
Labour and Benefits	98,666	3,033	0	262	0	0	0	101,961	3,295	3%
Operational Costs	3,968	100	(87)	0	0	0	0	3,980	13	0%
Facility, IT and Support Costs	812	173	0	0	0	0	0	985	173	21%
Total Gross Expenditures	103,446	3,306	(87)	262	0	0	0	106,927	3,481	3%
Total Revenues	(1,669)	(112)	(18)	0	0	0	0	(1,799)	(130)	8%
Total Net Expenditure	101,778	3,194	(105)	262	0	0	0	105,128	3,351	3%

Summary of Proposed 2017 Budget and 2018-2019 Forecast

Description	2016 Budget (\$000's)	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)
Labour and Benefits	98,666	101,961	106,554	109,430	111,072
Operational Costs	3,968	3,980	4,100	4,114	4,130
Facility, IT and Support Costs	812	985	1,015	1,042	1,063
Total Gross Expenditures	103,446	106,927	111,669	114,586	116,265
Total Revenues	(1,669)	(1,799)	(1,799)	(1,799)	(1,799)
Total Net Expenditure	101,778	105,128	109,870	112,787	114,467

Note: Numbers may not balance due to rounding.

Proposed Budget Changes Excluding New Initiatives and New Revenues

The following table provides detailed highlights of budget changes by major cost and revenue category. It identifies the net changes to maintain existing service levels, efficiencies and cost savings, and cost increases arising from prior year decisions.

Category	2016 Budget (\$000's)	2017 Proposed Budget (\$000's)	Change (\$000's)	Details (\$000's)
Labour and Benefits	98,666	101,961	3,295	Increase reflects labour and fringe benefit adjustments
Administration and Support Costs	812	985	173	Garry Morden Centre Maintenance cost increase and increase in the departmental support costs to reflect revised allocation.
Advertising & Promotions	41	45	4	
Communication Costs	313	313	0	
Contractor & Professional Services	35	35	0	
Equipment Costs & Maintenance Agreements	339	355	16	
Finance Other	(37)	(37)	0	
Materials, Supplies & Other Services	726	842	116	\$45K - Increased cost of bunker gear cleaning/inspection, \$55K - Annual personal protective equipment lifecycle replacement related to health and safety requirements, \$10K - Increase in central store material costs, \$6K - Support material costs for newly hired staff.
Transportation Costs	1,315	1,260	(55)	City wide diesel budget reduction
Occupancy & City Costs	949	869	(79)	Lease for Station 119 is no longer in effect. Relocated station 119 is a City owned facility.
Staff Development	267	268	1	
Transfers To Reserves and Reserve Funds	20	30	10	
Subtotal - Other Operating	4,780	4,966	186	
Total Revenues	(1,669)	(1,799)	(130)	MTO (Ministry of Transportation) rate increase.
Subtotal - Revenues	(1,669)	(1,799)	(130)	
Total	101,778	105,128	3,351	

Note: Numbers may not balance due to rounding.

Proposed New Initiatives and New Revenues

This table presents the costs by budget request (BR#) for proposed new initiatives. Detailed descriptions of each budget request can be found on the pages following the table. Over the course of the next four years, MFES is requesting funding for firefighters to staff new fire station 120 which is scheduled for completion in the fall of 2018. This station is being built in the Hurontario and Eglinton area to support growth and mitigate inadequate response times. Population growth is the driver behind the majority of the funding requests over the next four years. Consideration will be also given to the units within MFES that support the front line operations such as mechanical, equipment and training.

Description	BR #	2017 FTE Impact	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)	2017 to 2020 FTE Impact	2017 to 2020 Capital (\$000's)
New Initiatives								
Fire Station 120- Hurontario and Eglinton Area	2554	0.0	0	2,054	2,852	2,895	20.0	2,200
Stores Clerk	2555	0.0	0	103	143	145	1.0	0
Fleet Mechanic	2556	0.0	0	101	157	159	1.0	0
Training and Development Staffing	2557	0.0	0	237	538	625	4.0	0
Automated Staffing and Reporting System	2647	0.0	0	40	40	40	0.0	300
Mobile Field Automation & Records Management	2648	0.0	0	65	65	65	0.0	486
Total New Initiatives		0.0	0	2,600	3,795	3,930	26.0	2,986
Total		0.0	0	2,600	3,795	3,930	26.0	2,986

Note: Numbers may not balance due to rounding.

Proposed Initiative	Department	Service Area
Fire Station 120- Hurontario and Eglinton Area	Community Services Department	Fire & Emergency Services

Required Annual Operating Investment

Impacts (\$000s)	2017	2018	2019	2020
Gross Expenditures	0.0	2,053.7	2,852.4	2,895.2
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	2,053.7	2,852.4	2,895.2
* Net Change in \$		2,053.7	798.8	42.8
FTEs	0.0	20.0	20.0	20.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2016 & Prior	2017	2018	2019	2020 & Beyond
Expenditures	995.0	2,200.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

This area is primarily residential where life risk is higher. This station will allow MFES to meet response time targets in this response area and assist meeting targets in surrounding areas. It will also position MFES to be able to appropriately service this area now and also considers the impact of future growth.

Details of Service Change

This station was identified in the 2010 Fire Master Plan as the number one priority and based on 2012 updated response data this station remains the first priority. In 2012 there were 1,048 emergency incidents in this response area with 518 or 49 per cent being deficient. Almost 50 per cent of those deficient calls are over the total response time target by more than 40 seconds. One of the most significant concerns for emergency response is the impending growth in this area. High density construction is estimated to increase by more than 2,700 new apartment units and 650 row housing units in this area alone. With close to 50 per cent of the calls currently not meeting any recognized standard, the growth will increase the number of deficient calls by approximately 30 per cent in 10 years.

Service Impact

This station will allow MFES to have a better distribution of its resources in this highly populated residential area and address existing service deficiencies as well as addressing future growth. It will allow MFES to meet appropriate response time targets in this response area now and in the future. The addition of new staffing and station locations will allow MFES to continually improve on our in-company inspection program, tactical survey program and home safe home program and will improve our mandated public education programs.

Proposed Initiative	Department	Service Area
Stores Clerk	Community Services Department	Fire & Emergency Services

Required Annual Operating Investment

Impacts (\$000s)	2017	2018	2019	2020
Gross Expenditures	0.0	102.7	142.6	144.8
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	102.7	142.6	144.8
* Net Change in \$		102.7	39.9	2.1
FTEs	0.0	1.0	1.0	1.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2016 & Prior	2017	2018	2019	2020 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

Since the current position was created in 1999, staff complement has increased over 30 per cent, five front line vehicles have been added, four new stations opened and a third district was created. As part of Future Directions Master plan the potential for additional stations and associated apparatus and equipment have been identified which will significantly impact this unit.

Details of Service Change

MFES stores section is currently staffed by one (1) FTE who is responsible for approximately \$8.5 million of equipment. This includes personal protective equipment, (bunker gear, SCBA, helmets, face pieces etc.) technical rescue equipment, hoses, nozzles and many other items which are critical to fire operations. Corporate purchasing changes have downloaded acquisition responsibilities to this section. Stores section provides critical support for maintaining daily operations across 20 remote stations from building supplies to personal protective equipment.

Service Impact

Staff are completely dependent of the stores section to provide well maintained equipment and clothing to do their jobs effectively and to ensure their safety at emergency scenes. This section currently has no redundancy so that in the event of absences there is little to no coverage. As this position will be a junior position to the equip office it will allow for a better distribution of work and allow the equipment officer to spend time on critical tasks such as purchasing and acquisitions that are either being left incomplete or require further investment. This position will better allow for the appropriate assigned duties roles and responsibilities of the section.

Proposed Initiative	Department	Service Area
Fleet Mechanic	Community Services Department	Fire & Emergency Services

Required Annual Operating Investment

Impacts (\$000s)	2017	2018	2019	2020
Gross Expenditures	0.0	101.1	156.9	159.2
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	101.1	156.9	159.2
* Net Change in \$		101.1	55.8	2.4
FTEs	0.0	1.0	1.0	1.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2016 & Prior	2017	2018	2019	2020 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

In addition to vehicle repair and maintenance of over 80 vehicles, Mechanical staff are also responsible for the repair and maintenance of all department powered; rescue, grounds maintenance, and snow removal equipment, as well as all emergency power generators.

Details of Service Change

Since the last increase to Mechanical staff in 2008, the department has introduced the installation and use of both, MDU's and EVIR equipment. The addition of one new mechanic at this time will stabilize the sections eroding ability to meet the servicing needs of the section. Proposed new stations 120 and 123, will add two additional front line apparatus to the fleet over the next five years. Over the next three years generators will be added to eight existing stations which will also be the responsibility of this section. Planned business operation changes which may transfer legislative obligations for annual pump and hose testing responsibilities to this section will add considerable workload. Due to the existing volume of legislative and demand repair work requests, preventative maintenance required to maintain the life expectancy of vehicles is being deferred. MFES fleet vehicles must be available at all times to safely and quickly respond to all emergency incidents, and, along with powered equipment to function effectively for crews when they arrive on scene.

Service Impact

The new electronic daily vehicle inspection tool provided for station crews is resulting in an increase of additional deferred repair requests. A significant portion of work that is currently being deferred can be addressed. This new position is required to add to the shop service hours available to meet the legislative and standards prescribed inspections, demand emergency repairs, and to reduce the backlog of deferred repairs. The maintenance requirements for fire apparatus, rescue equipment and emergency generators must be addressed immediately when issues occur. The addition of one new mechanic at this time will stabilize the sections eroding ability to meet the servicing needs of the department.

Proposed Initiative	Department	Service Area
Training and Development Staffing	Community Services Department	Fire & Emergency Services

Required Annual Operating Investment

Impacts (\$000s)	2017	2018	2019	2020
Gross Expenditures	0.0	237.2	538.1	625.5
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	237.2	538.1	625.5
* Net Change in \$		237.2	300.9	87.4
FTEs	0.0	2.0	4.0	4.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2016 & Prior	2017	2018	2019	2020 & Beyond
Expenditures	0.0	0.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

As part of the 2014 Future Directions Fire Master Plan, MFES committed to making the training and ongoing development of staff a priority particularly in areas such as officer training, accreditation and mental health and wellness. Continuing to develop officer training programs, wellness programs and identify new opportunities for service excellence is critical to the future success of MFES.

Details of Service Change

This request encompasses a range of training requirements that considers the technical aspects of the job as well as the health and safety of MFES staff. There are four focus areas requiring FTE's to support the necessary changes. MFES is focusing on the wellness fitness initiative to be better able to assist Employee Health Services (EHS) in developing individualized return to work programs, engage with Peer Fitness Trainers to monitor routine fitness assessments for front line staff and be better able to coordinate all aspects of the ongoing WFI program on an annual basis. Future Directions recommended accreditation as a method to help to develop a comprehensive self-assessment and evaluation model that will enable MFES examine past, current, and future service levels and internal performance on an annual basis. This is in line with many other Ontario municipalities such as Ottawa, Kitchener, Guelph, Toronto and Brampton. MFES trains approximately 20 firefighters per year to the Fire Officer 1 Standard while also providing ongoing currency related training programs to the other existing 240 officers. MFES will be able to address these training requirements as well as Future Directions planned growth and related staff training pressures with the addition of two FTE's.

Service Impact

With a focus on the Wellness Fitness initiative MFES will better be able to support the facilitation of an employee's transition back to pre-injury positions. This is critical to the engagement of staff across the department and will ease the burden on Employee Health Services. CPSE Accreditation Program, administered by the Commission on Fire Accreditation International (CFAI) allows fire and emergency service agencies to compare their performance to industry best practices. Accreditation is a comprehensive self-assessment and evaluation model that enables organizations to examine past, current, and future service levels and internal performance. This process leads to improved service delivery. As the training requirements change and MFES continues to evolve and grow, an additional staffing will ensure appropriate skill levels are met. Officer development is critical to achieving a robust succession plan. These positions will also assist in meeting our requirements for the review, testing and evaluation of practices and policies for ongoing compliance against industry best practices and legislative requirements.

Proposed Initiative	Department	Service Area
Automated Staffing and Reporting System	Community Services Department	Fire & Emergency Services

Required Annual Operating Investment

Impacts (\$000s)	2017	2018	2019	2020
Gross Expenditures	0.0	40.0	40.0	40.0
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	40.0	40.0	40.0
* Net Change in \$		40.0	0.0	0.0
FTEs	0.0	0.0	0.0	0.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2016 & Prior	2017	2018	2019	2020 & Beyond
Expenditures	0.0	300.0	0.0	0.0	0.0

Why Staff Recommend this Initiative

This tool is used successfully in other similar shift environments and will improve the timeliness of scheduling and redeploying staff. MFES has committed to investigating opportunities that support the continuous improvement of service delivery and build internal capacity. This is a proven management tools that will promote financial and business sustainability.

Details of Service Change

The scope of this project is focused on the acquisition of an automated staffing and reporting system in order to run operations more efficiently. The program will reduce the time required by management to conduct and oversee staffing requirement in all divisions. In addition, it will provide more extensive and reliable reporting to manage staff availability and the related financial impact.

Service Impact

This initiative will provide automated scheduling and relaying of schedules to appropriate staff and include rules based scheduling. It will automatically notify staff based on complex business rules, eliminating manual phone calls. It will allow for integration with SAP and CAD and will more accurately and effectively track certification expirations and other personnel information. Will provide increased scheduling efficiency allowing platoon and district chiefs to spend more time on other duties. This initiative will eliminate data errors by removing the manual process from the Daily Roster and enable reporting to enhance management's knowledge as to how to better utilize and deploy staff. It will assist in managing overtime and reduce staff time devoted to maintaining a manual daily roster by 64 per cent.

Proposed Initiative	Department	Service Area
Mobile Field Automation & Records Management	Community Services Department	Fire & Emergency Services

Required Annual Operating Investment

Impacts (\$000s)	2017	2018	2019	2020
Gross Expenditures	0.0	65.0	65.0	65.0
Reserves & Reserve Funds	0.0	0.0	0.0	0.0
User Fees & Other Revenues	0.0	0.0	0.0	0.0
Tax Levy Requirements	0.0	65.0	65.0	65.0
* Net Change in \$		65.0	0.0	0.0
FTEs	0.0	0.0	0.0	0.0

**In each year, all values are cumulative, not incremental.*

Required Capital Investment

Total Capital (\$000s)	2016 & Prior	2017	2018	2019	2020 & Beyond
Expenditures	0.0	411.0	75.0	0.0	0.0

Why Staff Recommend this Initiative

It will provide faster data and information access for crews which will enhance their ability to make quick on scene decisions and will provide centralized digital data will reduce the need for physical space, (paper copies and filing). It will be a key component in the community based fire program (OFMEM Review) and will assist in supporting recommendations within the OFMEM review related to records retention and filing.

Details of Service Change

The scope of this project is the providing of a record management system and field automation to MFES front line staff that will enhance the delivery of Inspection and Enforcement Services, increase productivity of staff in the field, facilitate the move toward real time data access and improved service delivery to clients. For Operations Staff, this technology will supply mission critical information during emergency situations. This initiative will reduce unnecessary travel time, improve the efficiency of conducting inspections and provide the ability to create new inspection programs based on risk. The ability to have MFES staff equipped with field based computer applications linked to a real-time Records Management System and Field Automation (RMSFA) will lead to a more efficient delivery service, reduce duplicate input time and provide a method of capturing data in order to create more detailed records and reports.

Service Impact

Reduction of 307 repeat site visits for violation or and order delivery. (Three per cent of all fire related inspections). Space savings will result in 10 per cent of floor space with the digitization of the file rack storage with an additional 40 per cent space savings as a result of the relocation of fire inspectors to fire stations. Inspector travel time reduction of an average of 28 minutes and 22 kilometres per site where a revisit is required will increase inspector capacity to meet other mandatory requirements.

Human Resources

Proposed Full Time Equivalent Staffing Distribution by Program

Program	2016	2017	2018	2019	2020
Fire Building Maintenance	3.0	3.0	3.0	3.0	3.0
Fire Support Services	44.5	43.5	45.5	47.5	47.5
Fire Vehicle Maintenance	10.0	11.0	13.0	13.0	13.0
Fire Prevention	46.0	47.0	47.0	47.0	47.0
Suppression	615.0	614.0	634.0	634.0	634.0
Total Service Distribution	718.5	718.5	742.5	744.5	744.5

Note: Numbers may not balance due to rounding.

Capital

This section summarizes the forecast 10 year capital requirements for this service. The following table presents the forecast by major program. The next table summarizes the sources of financing for the capital forecast.

Proposed 2017-2026 Capital Budget by Program

Program Expenditures	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)	2021-2026 Forecast (\$000's)	Total 2017-2026 (\$000's)
Stations & Auxiliary Buildings	3,200	3,100	264	1,056	5,679	13,299
Vehicles & Equipment	5,439	8,009	8,622	6,167	17,627	45,864
Total	8,639	11,109	8,886	7,223	23,306	59,163

Note: Numbers may not balance due to rounding. Numbers are gross.

2017-2026 Capital Forecast Highlights include the following:

- Lifecycle replacement of front line vehicles and equipment
- Fire Station renovations
- Voice Communications (VCOM) radio system upgrade
- Computer Aided Dispatch (CAD) upgrade
- Emergency Operations Centre telecommunications and equipment
- New technology for record management, mobile updates and automated staffing and reporting

Proposed 2017-2026 Capital Budget by Funding Source

The following table provides the funding sources used to fund the capital portion for each year of the proposed 2017-2020 Business Plan and 2017 Budget and the consolidated forecast for 2021-2026.

Funding	2017 Proposed Budget (\$000's)	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)	2021- 2026 Forecast (\$000's)	Total 2017- 2026 (\$000's)
Development Charges	2,200	0	0	0	0	2,200
Other	100	0	0	0	100	200
Tax	3,469	3,452	4,191	1,753	3,770	16,635
Debt	2,870	7,657	4,695	5,470	19,436	40,128
Total	8,639	11,109	8,886	7,223	23,306	59,163

Note: Numbers may not balance due to rounding. □

Proposed 2017 Capital Budget Detail

The following tables provide a detailed listing of proposed capital projects for 2017.

Program: Stations & Auxiliary Buildings

Project Number	Project Name	Gross Cost (\$000's)	Recovery (\$000's)	Net Cost (\$000's)	Funding Source
CMFS00033	Design and Construction of New Fire Station 120	2,200	0	2,200	DCA -Fire Services Reserve Fund
CMFS00042	Renovation of Fire Station 102	600	0	600	Tax -Capital Reserve Fund
CMFS00051	Fire & Emergency Services Master Plan Review	100	0	100	Reserve for General Contingency
CMFS04968	Other Fire Station Renovation	300	0	300	Tax -Capital Reserve Fund
Total		3,200	0	3,200	

Program: Vehicles & Equipment

Project Number	Project Name	Gross Cost (\$000's)	Recovery (\$000's)	Net Cost (\$000's)	Funding Source
CMFS00056	Replacement of Emergency Response Tools and Equipment	400	0	400	Tax -Capital Reserve Fund
CMFS00065	Personal Protective Equipment Replacement	61	0	61	Tax -Capital Reserve Fund
CMFS00074	Refurbish Fire Vehicles	150	0	150	Tax -Capital Reserve Fund
CMFS00083	Replacement of fire vehicles	2,270	0	2,270	Tax -Debt-Other
CMFS00111	VCOM Radio System - Component Upgrade	231	0	231	Tax -Capital Reserve Fund
CMFS00142	Fire Station Emergency Generators	100	0	100	Tax -Capital Reserve Fund
CMFS04969	Record Management and Field Automation Technology	411	0	411	Tax -Capital Reserve Fund
CMFS04970	Purchase of Scheduling Software	300	0	300	Tax -Capital Reserve Fund
CMFS04973	CAD Upgrade	1,250	0	1,250	Tax -Capital Reserve Fund
CMFS05405	EOC Telecommunications	70	0	70	Tax -Capital Reserve Fund
CMFS05408	Office and EOC interior renovations	50	0	50	Tax -Capital Reserve Fund
CMFS05551	On-Line Training	146	0	146	Tax -Capital Reserve Fund
Total		5,439	0	5,439	

Note: Numbers may not balance due to rounding. □

Proposed 2018-2020 Capital Budget by Sub-Program

The following tables provide a detailed listing of proposed capital projects for 2018-2020.

Sub-Program	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)
Stations & Auxiliary Buildings			
FIRE Stations - Renovations	3,100	264	1,056
Subtotal	3,100	264	1,056

Sub-Program	2018 Forecast (\$000's)	2019 Forecast (\$000's)	2020 Forecast (\$000's)
Vehicles & Equipment			
FIRE Equipment New	175	0	0
FIRE Equipment Replacement	2,027	337	332
FIRE Safety Clothing Replacement	122	940	140
FIRE Vehicles	5,685	7,345	5,695
Subtotal	8,009	8,622	6,167
Total Expenditures	11,109	8,886	7,223

Note: Numbers may not balance due to rounding.
Numbers are net.

Performance Measures

A Balanced Scorecard identifies and measures four key areas of an organization's performances; Financial, Customers, Employees, and Business processes. By paying attention to all four areas, an organization can retain balance in its performance and ensure that it is moving towards the attainment of its goals.

Financial Measures

Total Operating Cost Per Capita is a measure that indicates how efficiently we are using our resources and is a particularly useful measure when comparing with other similar municipalities to gauge effectiveness.

Customer Measures

Home Safe Home Inspections

On duty fire crews conducted 44,009 Home Safe Home visits in 2015. Crews provided residents with valuable fire safety information on subjects ranging from smoke alarm, carbon monoxide alarm placement as well as fire escape plans. The goal of this measure is to increase public fire safety awareness by increasing the number of residents engaged by fire crews and promote the value of this program.

Number of People Attending Public Education Sessions

MFES staff deliver public education programming to various audiences. The programming is geared to provide a range of fire prevention, life safety, injury prevention, and fire safe learning behaviors. The goal is to increase the number of overall public engagement by 10 per cent annually.

Defibrillator Saves Annually

Survival rates are proven to be higher in those communities where CPR and/or defibrillation are administered in less than six minutes from the start of a sudden cardiac arrest. The goal is to continue to improve on the successes through continued training. The goal of this measurement is to increase the number

of saves related to the number of applications.

Employee Measures

Strategic Leadership

Based on the 2015 Employee Engagement Survey this measurement identifies how MFES employees rate and/or are satisfied with the strategic leadership of the department. The goal is to increase the percentage over time through employee engagement.

Innovation

This measurement identifies how employees feel about being empowered to try new business processes and the comfort level of management's acceptance to change. The goal is to increase the percentage satisfaction over time through employee engagement.

Business Process Measures

First Unit Travel Time (90th Percentile) captures how long it takes from the time the truck leaves the station until it arrives on the scene. Travel time is the largest component of total response and is the most difficult to control in a growing municipality with significant urban intensification. The travel time target is four minutes 90 per cent of the time for first the arriving vehicle on scene.

Fire Safety Inspections

The frequency of inspections is an important issue and impacts the level of fire safety and code compliance of properties. The goal of this measurement is to increase the number of fire safety inspections conducted annually. This will ensure that home and business owners are meeting their obligations and responsibilities as regulated by the Ontario Fire Code.

Violation Orders

Violation Orders are placed against properties that are not compliant with the Ontario Fire Code and therefore present public safety concerns. The goal of this measurement is encourage property owners to comply with appropriate legislation. It is expected that the number of violations will increase in the short term.



Learning Confined Space Rescue at the Fire Service Women Ontario Conference

Balanced Scorecard

Measures for Fire & Emergency Services	2013 (Actual)	2014 (Actual)	2015 (Actual)	2016 (Planned)	2017 (Planned)	2018 (Planned)	2019 (Planned)	2020 (Planned)
Financial:								
Cost per Capita for Emergency Services	118.49	123.69	127.15	132.89	137.17	142.51	148.05	150.06
Customer:								
Number of Home Safe Home Visits	32,445	31,820	44,022	44,599	45,099	45,599	45,099	46,599
Number of people attending Public Education Sessions	21,767	16,203	19,466	21,214	25,553	25,888	28,477	31,325
Number of Defibrillator Saves	36	36	38	38	39	39	40	40
Employees/Innovation:								
Employee Engagement Scores: Strategic Leadership	N/A	N/A	59.3	N/A	N/A	74.6	N/A	N/A
Employee Engagement Scores: Innovation	N/A	N/A	62.3	N/A	N/A	70.6	N/A	N/A
Internal Business Process:								
First Unit Travel Time (seconds)(at the 90 th percentile)	340	345	346	349	353	356	360	363
Number of Fire Safety Inspections	9,183	10,102	10,713	11,784	12,962	14,258	15,684	17,252
Number of Violation Orders	10	30	182	218	283	311	327	343