

Fire and Emergency Services Business Plan

2011-2014



2011-2014

Business Plan & Budget

City of Mississauga, Ontario, Canada



Vision & Mission

Vision

We are a progressive organization dedicated to preserving life, property and the environment.

Mission

To protect life, property and the environment in Mississauga from all perils through education, prevention, investigation, training, rescue, fire suppression, dangerous good containment and life support services.





Service Delivery Model

- Multi faceted, all risk emergency response service
- 616 suppression staff operating on 4 shifts
- 30 front line suppression vehicles, 9 reserve vehicles and 7 specialty vehicles
- Staff are divided up between 20 stations, communications dispatch centre, city hall and the training centre
- Administration is located at Station 101 (headquarters)





Goals of the MFES Business Plan

- MFES will meet service level objectives using a new performance model that measures total response time based on industry best practices
- MFES will complete the categorization of all properties within the City of Mississauga according to the associated risk
- The MFES response plan will match resources with risk category (ie high risk properties require more resources than lower risk)
- Enhanced public education program delivery will be targeted to match identified risks in the community such as older adults, children, and residents requiring special needs.



2011-2014

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City of Mississauga, Ontario, Canada



Past Achievements

In 2009:

- A volunteer group of firefighters went to Honduras to train both the firefighters and the community in various life saving disciplines, and emergency preparedness principles
- The auto extrication team took 5th place out of 30 teams in the World Auto Extrication Championships held in Germany
- Responded to 527 cardiac events where 316 met the criteria for defibrillation protocol resulting in 23 people being successfully discharged from hospital
- A co-operative labour management Health and Wellness program was launched to promote a comprehensive and holistic approach to lifestyle



2011-2014

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City of Mississauga, Ontario, Canada



Opportunities

- New emergency response performance model
- Automatic Vehicle Location (AVL)
- Mobile Data Units (laptops)
- Garry W Morden Centre
- Department of National Defence, Peel Police and EMS Partnerships
- New Building Code legislation
- Health and Wellness program

Challenges

- **Population** has increased by 100,000 people since 2001
- **Volume** of emergency incidents have increased
- **Traffic congestion** is negatively impacting response times
- Number of **high rise** developments
- Proximity and response requirements to the **airport**
- High volume of **medical calls** (46%)





Current Service Levels

- Council endorsed standard was approved in 1999
 - The expected performance was reflective of the expectations of the day
- 1) First responding vehicle arriving on scene within four minutes of travel time, 75 percent of the time **MFES Actual : 62 percent**
 - 2) Second responding vehicle arriving on scene within six minutes of travel time, 90 percent of the time **MFES Actual: 79 percent**
 - 3) Third responding vehicle arriving on scene within eight minutes of travel time, 90 percent of the time **MFES Actual: 90 percent**
- Responded to a total of **26,966 incidents** in 2009
 - 1 percent of responses in Mississauga are structure fires
 - 45 percent of the responses are medical

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City of Mississauga, Ontario, Canada



Current Service Levels

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Programs - 2009

In Company Inspections	11,876
In Company Re-inspections	741
Tactical Surveys	3907
Home Safe Home Visits	16,126
Truck Visits	351
Station Visits	122

Operational Objectives: Suppression



Dispatch Time (from time call received to when the station is alerted);

- MFES will consistently meet the alarm processing target time of 60 seconds, 95 percent of the time

Turnout Time (from time alerted until truck leaves the station);

- Firefighters will receive and acknowledge the alarm, dress in full personal protective equipment and be ready to respond in 80 seconds, 90 percent of the time

First Response (Distribution)

- An initial team of four firefighters will arrive within six minutes 20 seconds total response time, 90 percent of the time

Depth of Response (Concentration)

- A minimum total complement of 20 firefighters will arrive to a fire involving a typical single family dwelling in 10 minutes 20 seconds total response time, 90 percent of the time.

Emergency Medical Response:

- An initial crew will arrive within 6 minutes total response time, 90 percent of the time.

Operational Objectives: Prevention and Life Safety

- Identify and classify building stock of special, high, moderate, and low risk occupancies, based on industry best standards
- To identify and capture all residential accessory dwelling unit occupancies
- Expand the Risk Watch Program for children in all elementary and middle schools across the city.



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City of Mississauga, Ontario, Canada



Operational Objectives: Training

- Continue to develop officer training programs
- Innovative use of research and development based on industry best practices
- Leverage the use of the Garry W. Morden Centre to deliver high level training programs
- Develop, deliver and assess training programs
- Maintain all specialized rescue and medical response programs to industry standards



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City of Mississauga, Ontario, Canada



Engaging our Customers

Based on the Pollara Citizen Value measurement survey completed in 2009, MFES was rated as the highest in overall satisfaction of any service in the City of Mississauga at 8.5. The City Average was 7.5. Residents have also indicated that the Fire Service is the most valued service offered by the City.





Engaging our Customers

Station Visits

- This public education program is provided to various groups in Mississauga and allows the group to tour the fire station and learn about fire safety

Vehicle Visits

- Elementary schools request truck visits in order to assist with the risk watch program and the firefighter in the community program.



Post Fire Community Blitz

- This is a public education program that is directed to neighbourhoods that have had a fire in their immediate vicinity

Install and maintain smoke alarms. It's the law and may save your life!



Every home in Ontario must have a "working" smoke alarm on every storey and outside sleeping areas.

www.mississauga.ca

Plan your escape before it's too late.



If fire strikes, you may only have seconds to get out. Plan and practice your escape.

www.mississauga.ca



Budget Summary

Drivers of Operating Costs

Description (\$ 000's)	2011	2012	2013	2014
Prior Year Budget	81,582	84,863	89,064	94,387
Base Changes & Impact of Capital Projects				
Base Changes	3,132	3,320	3,325	1,905
Impact of New Capital Projects	0	260	97	0
Continuous Improvements				
Efficiencies	0	0	0	0
Budget Reductions	0	0	0	0
Total Changes to Base and Continuous Improvement	3,132	3,580	3,422	1,905
Total Cost to Deliver Our Existing Services	84,714	88,443	92,485	96,292
Proposed Changes				
Growth Driven Initiatives	137	525	1,902	115
New Service Level/New Initiatives - Funded from Tax or Reserves	12	96	0	0
New Revenues	0	0	0	0
Total - Proposed Changes	149	621	1,902	115
Total Budget	84,863	89,064	94,387	96,407

Base Changes

Highlights of Base Budget Changes

Description (\$ 000's)	FTE	2011	2012	2013	2014	Total Net Costs
Labour	0.0	3,411	3,262	3,277	1,946	11,897
Labour gapping	0.0	(750)	0	0	0	(750)
False Alarm Revenue Decline	0.0	185	0	0	0	185
Fire Mechanical - Fleet Vehicle Maintenance Increase	0.0	100	0	0	0	100
Lease increase for Fire Station 119	0.0	79	0	0	(79)	0
Fire Building & Lease Maintenance Cost Increases	0.0	60	0	0	0	60
IT Allocations	0.0	45	4	0	0	49
Departmental Support Services Allocation	0.0	20	37	35	25	117
Utility initiative from Corporate Services	0.0	(18)	17	12	13	24
Total Base Budget Highlights	0.0	3,132	3,320	3,325	1,905	11,681





Operating Impacts of Capital Projects

Garry W. Morden Centre

Description (\$ 000's)	BR #	FTE	2011	2012	2013	2014	Total Net Costs
Growth Driven Service Costs	61	2.0	83				83
Operating Impacts from Capital Projects	61a	1.0		260	97		357
Total Operating Budget Impact		3.0	83	260	97	0	440

Garry W Morden Centre will be a training facility that will provide the capacity for enhanced training for all Fire and Emergency Services staff in order to meet future challenges.

It will also provide a better opportunity for cross training with other emergency service providers.





New Initiatives

Increased Service Levels/New Initiatives - Funded from Tax

Description (\$ 000's)	BR #	FTE	2011	2012	2013	2014	Total Net Costs	Area of Focus	Strategic Pillar
Electronic Vehicle Inspection Reporting System	286	0.0	12	0	0	0	12	Continuous improvement, value for money and tax rate management	
Disability Management Coordinator	191	1.0	0	96	0	0	96	Continuous improvement, value for money and tax rate management	
Total Operating Budget Impact		1.0	12	96	0	0	108		

Electronic Vehicle inspection reporting system will address inventory issues and ensure reliable truck inventory reporting

Absence Management should see a containment of lost time costs, a reduction in the time required on modified work as an employee transitions to full regular duties.



2011-2014

Business Plan & Budget

City of Mississauga, Ontario, Canada



Growth Driven Costs

- **Population growth**, intensification, increasing call volumes, increasing construction of high rise buildings and changes in building stock contribute to the ongoing need for additional resources in various areas of the service
- **Additional infrastructure** and resources have been identified to help to address population related challenges and achieve operational objectives.
- **Suppression** long term operational objectives for MFES are to achieve:
 - a total response time of six minutes, 20 seconds 90 percent of the time for the first responding fire truck
 - twenty firefighters on scene within 10 minutes 20 seconds to all house fires to support simultaneous rescue and suppression capabilities
- To accurately measure requirements, MFES has completed **critical tasking** based on industry best practice for all areas of emergency response
- This clearly outlines the requirements by task as well as the number of personnel and response vehicles require to complete those tasks

2011-2014

Business Plan & Budget

City of Mississauga, Ontario, Canada



Growth Driven Costs

- MFES will look at options to expand and improve **public education** programs
- Additional resources are required to address new legislative changes
- MFES has six full time **training** officers to meet the training needs of a total department compliment of 704.
- Commitment to **continuous improvement** and the ongoing analysis of data in order to be able to measure and report on key **performance measures** on a regular basis
- Leading fire services have dedicated resources to track and monitor performance measures which has assisted with **continuous improvement** initiatives and the long term accreditation process





Growth Driven Costs



Growth Driven Service Costs

Description (\$ 000's)	BR #	FTE	2011	2012	2013	2014	Total Net Costs
Garry W. Morden Centre	61	2.0	83	0	0	0	83
Data Analyst	144	1.0	54	54	0	0	108
New Fire Training Officers (3 FTE)	96	3.0	0	115	115	115	345
Fire Prevention Legislation Resourcing	73	2.0	0	99	99	0	198
Building Maintenance Mechanic	65	1.0	0	97	0	0	97
Deputy Chief Position	163	1.0	0	92	91	0	183
Stores/Equipment Clerk	116	1.0	0	37	37	0	74
Emergency Management	164	1.0	0	31	120	0	151
Station 120- Hurontario and Eglinton area	74	20.0	0	0	1,440	0	1,440
Station 123 - Burnhamthorpe and Winston Churchill area -Post 2014	109	0.0	0	0	0	0	0
Station 124- Dundas and Cawthra area Post 2014	110	0.0	0	0	0	0	0
District Chief Positions Post 2014	158	0.0	0	0	0	0	0
Total Operating Budget Impact		32.0	137	525	1,902	115	2,679

2011-2014

Business Plan & Budget

City of Mississauga, Ontario, Canada



Capital Changes

- Three additional fire stations to address service needs
- Relocation of Station 119
- Mobile Data Units (Laptops)
- Station Rehabilitation





Capital Changes

New Station (120) (BR #74)

- Address current **deficiency of 37%** in this response area
- Allows MFES to improve the response to **over 2,200 calls**
- Serve a residential population of **45,000** which is forecasted to increase
- Service a **major community node** as identified in the Official Plan
- Service the northern section of the **Downtown 21** which is forecasted to receive the highest percentage population increase over the next 20 years
- Improve total response time citywide by **3%**
- Improve **highway response**
- Service **10 schools and one youth detention centre**
- Allow for better distribution of fire apparatus to deal with **vertical response** and traffic congestion resulting from intensification
- Reduce the impact of **simultaneous calls**
- Ease the pressure in **adjacent response areas**



Capital Changes

New Station (123) (BR #109)

- Address current **deficiency of 36%** in this response area
- Allows MFES to improve the response to approximately **1,700 calls**
- Serve a residential population of approximately **25,000**
- Serve the employment population of over 12,000 in **Western Business Park**
- Improve **highway response**
- Improve total response time citywide by approximately **2.5%**
- Service **8 schools and one nursing home**
- Reduce the impact of **simultaneous calls**
- Ease the pressure in **adjacent response areas**

Capital Changes

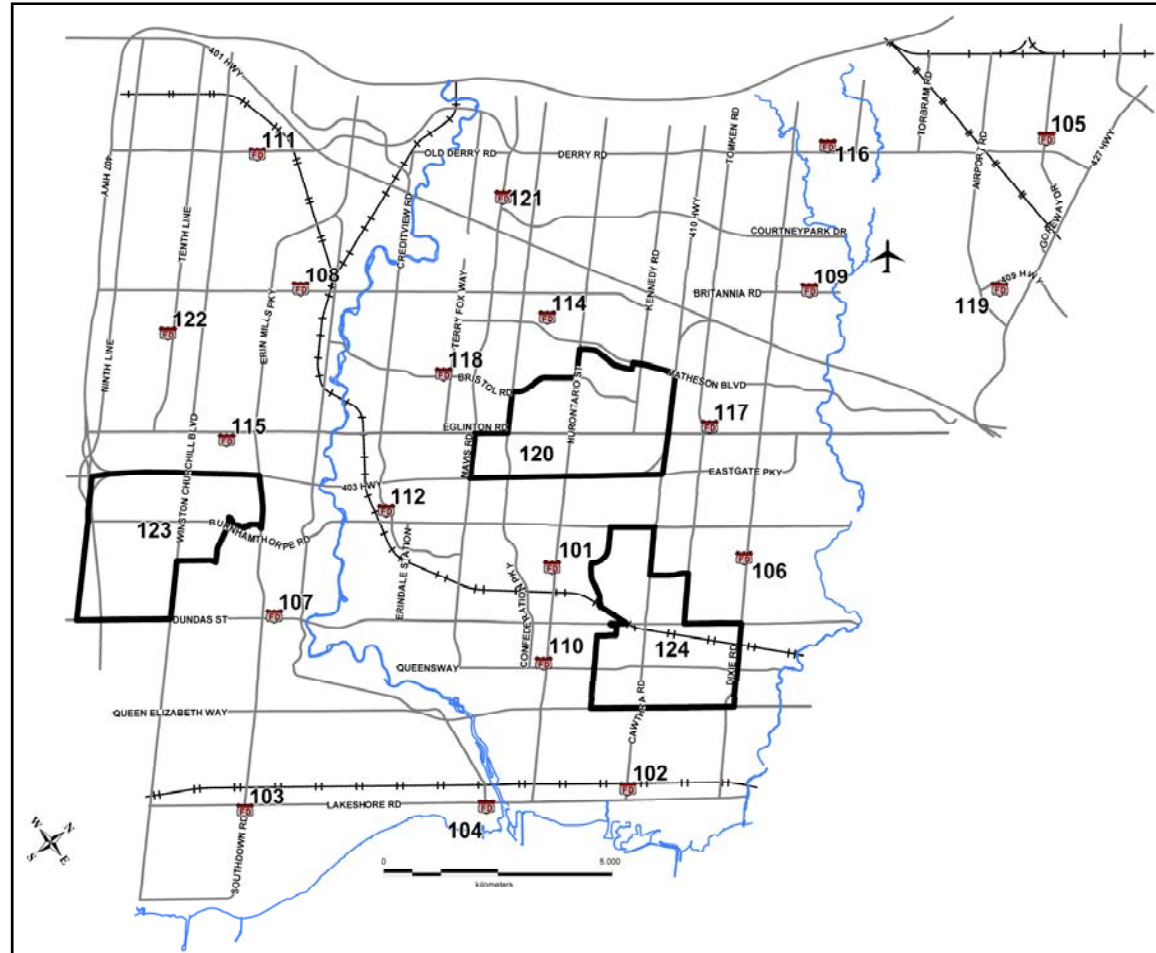
New Station (124) (BR #110)

- Address current **deficiency of 26%** in this response area
- Allows MFES to improve the response to approximately **1,500 calls**
- Serve a residential population of approximately **25,000**
- Serve an employment population of approximately **6,000**
- Improve total response time citywide by approximately **2%**
- Service approximately **18 schools, a nursing home and Trillium Hospital**
- Reduce the impact of **simultaneous calls**
- Ease the pressure in **adjacent response areas**





New Stations – Short Term





Human Resource Requirements

Human Resources Requirement

Description	Changes	Total FTE
2010 Restated Complement		704.0
2011 Budget Requirement	3.0	707.0
2012 Budget Requirement	7.0	714.0
2013 Forecast	23.0	737.0
2014 Forecast	1.0	738.0

Technology

- MFES will be introducing **Automated Vehicle Locators (AVL)** that will automatically dispatch the closest available truck to an emergency whether it is in or out of station – Completion by mid 2011
- Update the current **VCOM trunked radio system** to a fully supported, modern radio platform suitable for emergency radio services –Completion by the end of 2013
- Implementation of new **station alerting system** to meet NFPA Standards and enhance turnout time – Completion by the end of 2011
- Implementation of **Mobile Data Units (laptops)** in all front line vehicles to assist with routing and provide site specific hazard and tactical information – Completion by end of 2011



Facilities

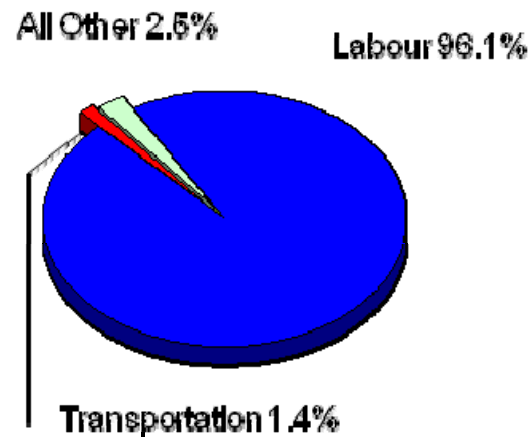


- Additional fire stations are being considered to address service gaps beginning in 2011
 - **Station 120** budget request for land acquisition in 2011 and design and construction in 2012/2013
 - **Station 123** budget request for land acquisition in 2013 and design and construction in 2014/2015
 - **Station 124** budget request for land acquisition in 2013 and design and construction in 2014/2015
- As well, the following projects are currently underway and are expected to be completed within this business cycle:
 - The **Garry W. Morden Centre** began construction in Spring of 2010 with occupancy expected in the spring of 2012
 - **Station 106** will be relocating and will co-locate with the Region of Peel Paramedic Services (Satellite Station) in late 2011
 - **Station 116** will be relocating to 6825 Tomken Rd and will also co-locate with the Region of Peel Paramedic Services (Reporting Station) in mid 2011
 - **Station 119**, which is currently a leased facility, will begin the relocation process in 2011



2011 -2014 Operating Budget

- Labour is 96 percent of the operating budget
- Almost 94 percent of the MFES staff compliment are directly in contact with, and provide a direct service to the public on a daily basis





How do we Compare?

Benchmark	Mississauga	Vancouver	Calgary	Ottawa	Edmonton
Population / Station	36,161	28,900	30,442	20,887	31,298
Population / Front Line Vehicles	24,107	16,055	14,398	10,091	20,062
Population / Fire Employee	1,027	705	785	895	766
Population / Suppression Staff	1,186	782	862	1,030	866
Cost / Capita	\$91.04	\$123.88	\$119.91	\$120.48	\$147.86

Source: Annual Comparator Survey, Calgary, 2009



Performance Measures

First Unit Travel Time for Moderate Risk Occupancies (90th Percentile) captures how long it takes from the time the truck leaves the station until it arrives on the scene of a moderate risk occupancy

First Unit Travel Time for High Risk Occupancies (90th Percentile) captures how long it takes from the time the truck leaves the station until it arrives on the scene of a high risk occupancy.

First Unit Total Response Time for Moderate Risk & High Risk Occupancies (90th Percentile) captures total response time which is call processing time (dispatch) + crew preparation time + plus vehicle travel time.



Performance Measures

Measures for Fire & Emergency Services	2008 (Actual)	2009 (Actual)	2010 (Planned)	2011 (Planned)	2012 (Planned)	2013 (Planned)	2014 (Planned)
Financial Measures							
Total Operating Cost per Capita	\$102	\$107	\$113	\$117	\$123	\$128	\$123
Customer Measures							
Number of Home Safe Home Inspections Annually	14,551	16,126	16,500	16,500	17,160	17,820	18,480
Number of Defibrillator Saves Annually	19	23	25	25	28	30	32
Employees/Innovation & Learning Measures							
Average number of training hours/firefighter annually	130	150	150	150	160	165	170
% of Staff having Fire Prevention Officer Certification	53%	53%	60%	63%	66%	69%	73%
% of Staff having Fire & Life Safety Certification	35%	35%	40%	43	46%	49%	53%
Internal Business Measures							
First Unit Travel Time for Moderate Risk Occupancies (90 th Percentile) (Minutes)	5:45	6:02	6:05	6:08	6:08	6:02	5:55
First Unit Travel Time for High Risk Occupancies (90 th Percentile) (Minutes)	4:21	4:13	4:20	4:27	4:27	4:20	4:13
First Unit Total Response Time for Moderate Risk Occupancies (90 th Percentile) (Minutes)	7:54	8:05	8:15	8:25	8:25	8:05	7:54
First Unit Total Response Time for High Risk Occupancies (90 th Percentile) (Minutes)	6:19	6:12	6:15	6:18	6:18	6:18	6:18



2011-2014

Business Plan & Budget

City of Mississauga, Ontario, Canada

APPENDICES





Capital Changes

2011 - 2014 Net Capital Detail Changes

Program Expenditures (\$ 000's)	BR #	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	Post 2014 Forecast	Total (\$)	Area of Focus	Strategic Pillar
Station 120- Hurontario and Eglinton Area	74	1,500	700	2,700			4,900	Identifying any new initiatives that align with the Strategic	Connect
Relocation of Station 119	100	1,200	700	2,000			3,900	Identifying any new initiatives that align with the Strategic	Connect
Laptops in Fire Trucks	169	400				440	840	Continuous improvement, value for money and tax rate management	
VCOM Radio System - Upgrade	190	200	275	1,000	725	800	3,000	Maintaining a state of good repair for our infrastructure	
VCOM Radio System - funding forecasted previous budget submission				(2,978)			(2,978)		
Electronic Vehicle Inspection Reporting System	286	50					50	Continuous improvement, value for money and tax rate management	
Reachlift-front end loader - Garry Morden Centre	202		100				100	Maintaining a state of good repair for our infrastructure	
Vehicle for New Deputy Chief Position	163		68				68	Continuing to be an Employer of Choice	
Emergency Management	164		45				45	Continuous improvement, value for money and tax rate management	
Hazmat Mass Decon Shelter	201		40				40	Other	
Additional Prevention Vehicle	48		40				40	Continuing to be an Employer of Choice	
Fire 911 Voice Logger Replacement	180		34				34	Maintaining a state of good repair for our infrastructure	
Fire Rehabilitation Container	204		25				25	Continuing to be an Employer of Choice	
Station 123 - Burnhamthorpe and Winston Churchill Area	109			1,000	1,700	1,700	4,400	Identifying any new initiatives that align with the Strategic	Connect
Station 124 - Dundas and Cawthra Area	110			1,000	1,700	1,700	4,400	Identifying any new initiatives that align with the Strategic	Connect
Station 101 Rehabilitation	598			500	700		1,200	Maintaining a state of good repair for our infrastructure	
Station 107 Rehabilitation	86				500	2,500	3,000	Identifying any new initiatives that align with the Strategic	Connect



Capital Changes

Cont'd

2011 - 2014 Net Capital Detail Changes

Program Expenditures (\$ 000's)	BR #	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	Post 2014 Forecast	Total (\$)	Area of Focus	Strategic Pillar
Upgrade to Back up Fire Communications Centre	206				171		171	Maintaining a state of good repair for our infrastructure	
Station 104 Relocation	32a					4,200	4,200	Maintaining a state of good repair for our infrastructure	
Station 115 Rehabilitation	59					910	910	Maintaining a state of good repair for our infrastructure	
Station 109 Rehabilitation	56					860	860	Maintaining a state of good repair for our infrastructure	
Station 102 Rehabilitation	46					800	800	Maintaining a state of good repair for our infrastructure	
Station 114 Rehabilitation	58					680	680	Maintaining a state of good repair for our infrastructure	
Station 112 Rehabilitation	57					640	640	Maintaining a state of good repair for our infrastructure	
Station 108 Rehabilitation	55					430	430	Maintaining a state of good repair for our infrastructure	
Vehicle for New District Chief Position	158					70	70	Continuous improvement, value for money and tax rate management	
New projects 2019-2020						5,198	5,198		
Fire Vehicle changes		172	(1,015)	343	(1,500)	991	(1,009)		
Equipment Replacement		0	(800)	800	0		0		
Safety clothing Replacement		(151)	(157)	(163)	(169)	(96)	(736)		
Other Equipment Replacement		(38)	38				0		
Total Net Expenditures		3,333	94	6,202	3,827	21,823	35,278		

2011-2014 Operating Budget Forecast

4 Year Budget and Forecast

(\$ 000's)	2010 Budget	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast
Labour Costs	79,343	82,092	86,058	91,275	93,336
Other Operating Expenses	3,203	3,484	3,779	3,851	3,784
Total Costs	82,546	85,577	89,837	95,125	97,120
Total Revenues	(1,749)	(1,564)	(1,664)	(1,664)	(1,664)
Net Cost	80,797	84,013	88,173	93,462	95,456
Allocations	785	850	890	926	951
Net of Allocations	81,582	84,863	89,064	94,387	96,407



2011-2014 Capital Budget by Program

2011 - 2020 Total Net Capital Program

Program Expenditures (\$ 000's)	2011 Budget	2012 Budget	2013 Forecast	2014 Forecast	Post 2014 Forecast	Total (\$)
Stations & Auxiliary Buildings	12,774	1,438	6,500	4,642	13,112	38,466
Vehicle & Equipment	2,878	2,879	4,273	2,988	25,073	38,091
Total Net Expenditures	15,652	4,317	10,773	7,630	38,185	76,557

