



# Toronto **2015** **BUDGET**

## CAPITAL PROGRAM SUMMARY



## Fire Services

### 2015 – 2024 CAPITAL BUDGET AND PLAN OVERVIEW

Toronto Fire Services (TFS) is dedicated to protect life, property and the environment from the effects of fires, illnesses, accidents, natural disasters and other hazards.

TFS currently operates 83 fire stations and 9 support facilities with a total area of approximately 775,125 sq. ft. with an estimated replacement value of \$348.806 million.

Fire Services' 10-Year Capital Plan of \$60.193 million provides funding for the replacement of emergency equipment and personal protective equipment used by firefighters as well as the construction of 3 new fire stations based on anticipated population density and required emergency response times.

#### *Toronto Radio Infrastructure Project (TRIP)*

The Radio Infrastructure Replacement project is a corporate initiative to replace the joint radio communication system infrastructure for the City's emergency services, Fire Services, Toronto Police Service and Toronto Paramedic Services. This project is anticipated to be completed in mid-2015.

## Highlights

### Overview & Recommendations

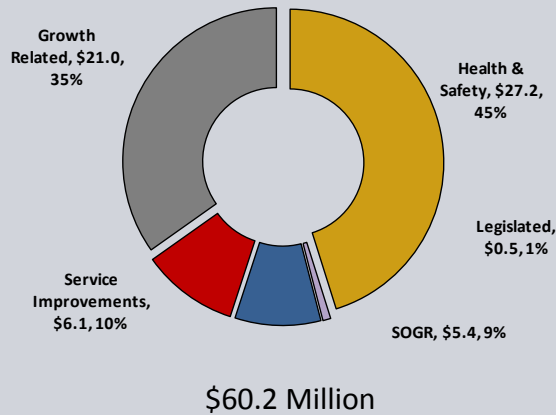
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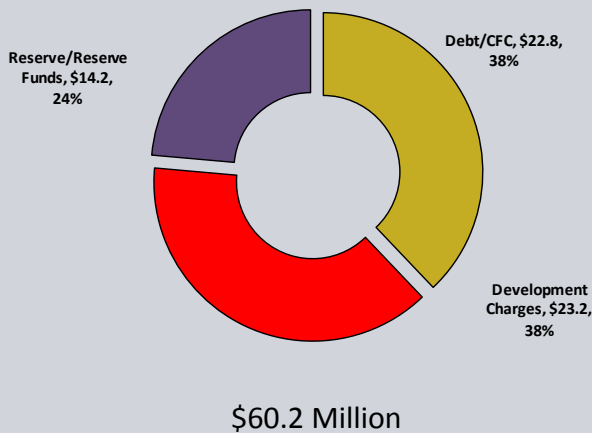
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### Capital Spending and Financing

2015-2024 Capital Budget and Plan by Expenditures Category



2015-2024 Capital Budget and Plan by Funding Source



### Where does the money go?

The 2015–2024 Capital Budget and Plan totals \$60.193 million and provides funding for the following projects:

- Replacement of defibrillators, portable radios, personal protective equipment such as self-contained breathing apparatus and bunker suits;
- Construction of 3 new fire stations and rebuilding of an existing fire station based on the Master Fire Plan approved by City Council in 2007;
- Renovating and re-purposing of an existing fire station to maximize office and space utilization; and
- Lifecycle replacement of emergency equipment and training facilities.

### Where does the money come from?

The 10-Year Capital Plan is funded by 3 major sources: debt, development charges and reserves.

- New debt funding of \$22.819 million comprises 37.9% of Toronto Fire Services' 10-Year capital funding which is over the debt guideline by \$9.018 million.
- The Program has been allocated additional debt funding to fund new key priority capital projects.
- Additional capital financing of \$23.170 million and \$14.204 million will be provided from Reserves and from Development Charges respectively.

### State of Good Repair Backlog

The 10-Year Capital Plan does not include funding to address the state of good repair backlog for TFS facilities as asset management capital funding was transferred to Facilities Management & Real Estate (FM&RE) in 2010 to ensure that consistency in maintenance standards are applied through City facilities.

Facility Management & Real Estate' 10-Year Capital Plan includes \$14.727 million over 10 years to address Fire Services' SOGR backlog for facilities occupied by TFS. Due to insufficiency of funds, the accumulated SOGR backlog by the end of 2024 is estimated at \$94.906 million or 27% as a percentage of asset value of \$348.806 million.

TFS does not have a state of good repair backlog for its equipment as these are replaced according to TFS' Equipment Replacement schedule which is required to maintain service continuity, staff safety and regulatory compliance.

## Our Key Challenges & Priority Actions

**Fire Services Master Fire Plan** - The City's Master Fire Plan, approved in 2007, identified the need for new fire stations to address response time gaps in some areas within the City.

- ✓ The 2015-2024 Capital Plan includes the construction of three new fire stations and the rebuild of an existing fire station consistent with the Fire Master Plan. An updated Master Fire Plan is anticipated to be completed by March 2015.



**Fire Services/EMS Efficiency Review** - The review identified improvements in the deployment of fire resources and apparatus through the use of dynamic staging and predictive modelling.

- ✓ The 2015-2024 Capital Plan includes capital project funding for dynamic staging/predictive modelling capability and enhancements to the Computer Aided Dispatch (CAD) that will aid in the deployment of fire resources and apparatus.



## 2015 Capital Budget Highlights

The 2015 Capital Budget for Fire Services of \$20.715 million, including carry forward funding, will:

- Begin enhancements to the Computer Aided Dispatch system and the Emergency Communication System.
- Begin the purchase of 150 thermal imaging cameras that will allow firefighters to see areas of heat through smoke, darkness, etc., bunker suits and the renovation/repurposing of Fire Station #424 at Runnymede Rd.
- Continue the purchase of 7 specialized fire trucks that are custom made to meet TFS' requirements that are beyond normal parameters of the standard apparatus used by TFS.
- Complete the replacement of the emergency phone system to support the migration from a circuit switched technology to an Internet Protocol (IP) platform, the implementation of predictive modelling/dynamic staging software to aid in the deployment of resources and the purchase of self-contained breathing apparatus.
- Complete the repair of training equipment such as special operations water simulator and training simulators.
- Continue the construction of three fire stations, Station B #144 – Keele St (Downsview), Station #135 - Chaplin Crescent Station and Station A (Stn #414) Hwy 27 and Rexdale Blvd.



## II: COUNCIL APPROVED BUDGET

City Council approved the following recommendations:

1. City Council approve the 2015 Capital Budget for Fire Services with a total project cost of \$10.045 million, and 2015 cash flow of \$20.715 million and future year commitments of \$16.258 million comprised of the following:
  - a) New Cash Flow Funds for:
    - i. 10 new / change in scope sub-projects with a 2015 total project cost of \$10.045 million that requires cash flow of \$3.320 million in 2015 and increases in future year cash flow commitments of \$6.725 million in 2016;
    - ii. 4 previously approved sub-projects with a 2015 cash flow of \$4.433 million; and future years cash flow commitments of \$6.708 million in 2016 and \$2.825 million for 2017; and
    - iii. 2 previously approved sub-projects with carry forward funding from 2013 and prior years requiring 2015 cash flow of \$2.908 million that requires Council to reaffirm its commitment; and
  - b) 2014 approved cash flow for 7 previously approved sub-projects with carry forward funding from 2014 into 2015 totalling \$10.054 million.
2. City Council approve the new debt service costs of \$0.101 million in 2015 and incremental debt costs of \$0.667 million in 2016, \$0.255 million for 2017; resulting from the approval of the 2015 Capital Budget, to be included in the 2015 and future year operating budgets.
3. City Council consider the operating costs of \$0.176 million net in the 2016 including 1 positions, \$2.300 million net in 2017 including 21 positions; \$2.012 million net in 2018 including 21 positions; (\$0.048 million) in 2019 resulting from the approval of the 2015 Capital Budget for inclusion in the 2015 and future year operating budgets.
4. City Council approve the 2016-2024 Capital Plan for Fire Services totalling \$33.274 million in project estimates, comprised of \$2.200 million in 2016; \$5.950 million for 2017; \$0.820 million for 2018; \$1.150 million for 2019; \$4.450 million for 2020; \$1.250 million for 2021; \$0.150 million for 2022; \$8.186 million for 2023; and \$9.118 million in 2024.
5. City Council approve 2.0 temporary capital positions for the delivery of 2015 capital projects and that the duration of each temporary position not exceed the life and funding of its respective project/sub-project.
6. City Council approve the 2015 Capital Budget for the Radio Communication System Replacement project with a total project cost of \$3.786 million, and 2015 cash flow of \$10.557 million comprised of the following:
  - a) New Cash Flow Funds for:
    - i. 1 change in scope sub-project with a 2015 total project cost of \$3.786 million that requires cash flow of \$3.786 million in 2015; and
  - b) 2014 approved cash flow for 4 previously approved sub-projects with carry forward funding from 2014 into 2015 totalling \$6.791 million.

7. City Council amend the existing contract with Motorola Solutions Canada to increase the contract value by \$3.030 million subject to the approval of the 2015 Capital Budget for Radio Communication Replacement project.

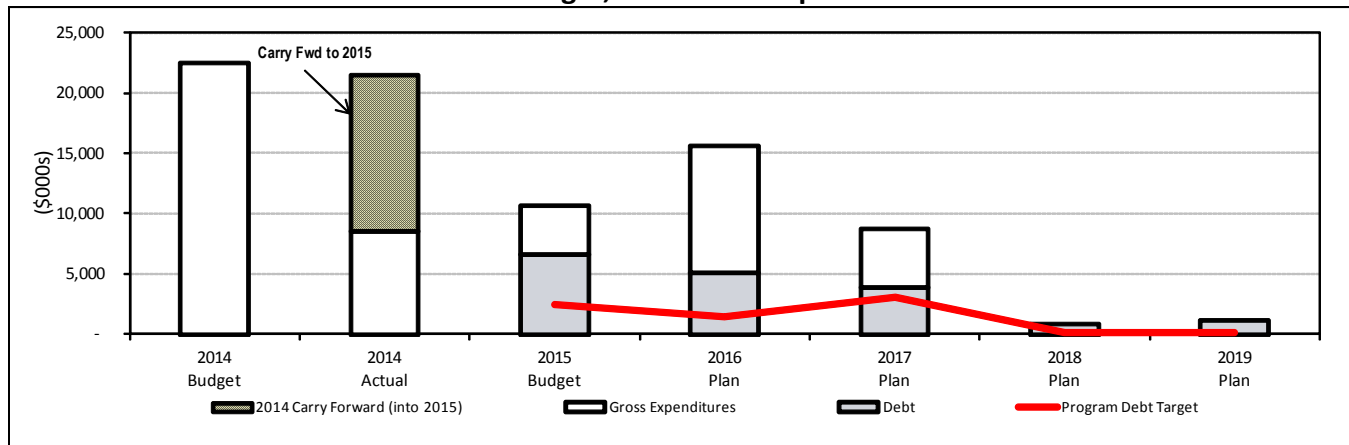


## **Part I:**

### 10-Year Capital Plan

10 Year Capital Plan

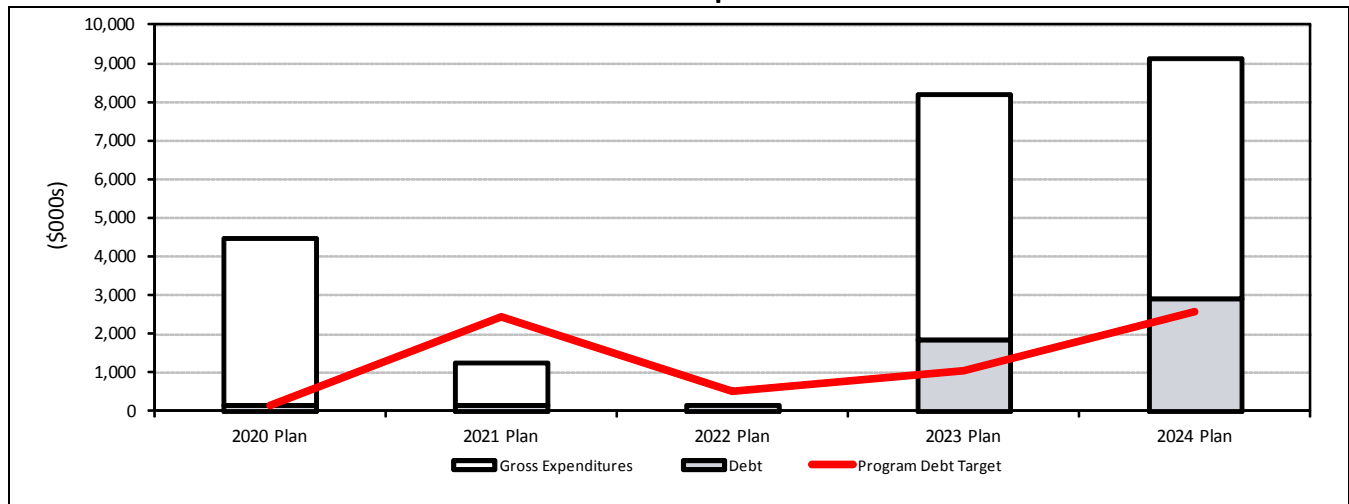
**Table 1a**  
**2015 Budget, 2016-2019 Capital Plan**



|  | 2015 Capital Budget and 2016 - 2019 Capital Plan |                |               |               |              |            |              |               | 5-Year Total Percent |
|--|--|----------------|---------------|---------------|--------------|------------|--------------|---------------|----------------------|
|  | 2014   |                | 2015          | 2016          | 2017         | 2018       | 2019         | 2015 - 2019   |                      |
|  | Budget   | Actual         |               |               |              |            |              |               |                      |
| <b>Gross Expenditures:</b>                                   |  |                |               |               |              |            |              |               |                      |
| 2014 Capital Budget & Approved FY Commitments                | 22,544   | 8,552          | 8,042         | 5,924         |              |            |              | 13,966        | 37.7%                |
| Changes to Approved FY Commitments                           |  |                | (3,609)       | 784           | 2,825        |            |              |               |                      |
| 2015 New/Change in Scope and Future Year Commitments         |  |                | 3,320         | 6,725         |              |            |              | 10,045        | 27.1%                |
| 2016- 2019 Capital Plan Estimates                            |  |                |               | 2,200         | 5,950        | 820        | 1,150        | 10,120        | 27.3%                |
| 2-Year Carry Forward for Reapproval                          |  | 2,908          | 2,908         |               |              |            |              | 2,908         | 7.9%                 |
| 1-Year Carry Forward to 2015                                 |  | 10,054         |               |               |              |            |              |               |                      |
| <b>Total Gross Annual Expenditures &amp; Plan</b>            | <b>22,544</b>                                    | <b>21,514</b>  | <b>10,661</b> | <b>15,633</b> | <b>8,775</b> | <b>820</b> | <b>1,150</b> | <b>37,039</b> | <b>100.0%</b>        |
| <b>Program Debt Target</b>                                   |  |                | <b>2,400</b>  | <b>1,401</b>  | <b>3,025</b> | <b>150</b> | <b>150</b>   | <b>7,126</b>  |                      |
| <b>Financing:</b>  |  |                |               |               |              |            |              |               |                      |
| <b>Debt</b>  |  |                | <b>6,599</b>  | <b>5,142</b>  | <b>3,898</b> | <b>820</b> | <b>1,150</b> | <b>17,609</b> | <b>47.5%</b>         |
| Reserves/Reserve Funds                                       |  |                | 3,126         | 6,124         | 3,182        |            |              | 12,432        | 33.6%                |
| Development Charges  |  |                | 936           | 4,367         | 1,695        |            |              | 6,998         | 18.9%                |
| Provincial/Federal   |  |                |               |               |              |            |              |               |                      |
| Debt Recoverable   |  |                |               |               |              |            |              |               |                      |
| Other Revenue  |  |                |               |               |              |            |              |               |                      |
| <b>Total Financing</b>                                       |  |                | <b>10,661</b> | <b>15,633</b> | <b>8,775</b> | <b>820</b> | <b>1,150</b> | <b>37,039</b> | <b>100.0%</b>        |
| <b>By Project Category:</b>                                  |  |                |               |               |              |            |              |               |                      |
| Health & Safety  |  |                | 3,533         | 5,425         | 5,000        | 70         |              | 14,028        | 37.9%                |
| Legislated   |  |                | 50            | 50            | 50           | 50         | 50           | 250           | 0.7%                 |
| SOGR   |  |                | 1,833         | 1,402         | 900          | 700        | 100          | 4,935         | 13.3%                |
| Service Improvement  |  |                | 4,144         | 1,978         |              |            |              | 6,122         | 16.5%                |
| Growth Related   |  |                | 1,101         | 6,778         | 2,825        |            | 1,000        | 11,704        | 31.6%                |
| <b>Total by Project Category</b>                             |  |                | <b>10,661</b> | <b>15,633</b> | <b>8,775</b> | <b>820</b> | <b>1,150</b> | <b>37,039</b> | <b>100.0%</b>        |
| <b>Asset Value (\$) at year-end</b>                          |  | <b>348,806</b> |               |               |              |            |              |               |                      |
| Yearly SOGR Backlog Estimate (not addressed by current plan) |  |                |               |               |              |            |              |               |                      |
| Accumulated Backlog Estimate (end of year)                   |  |                |               |               |              |            |              |               |                      |
| <b>Backlog: Percentage of Asset Value (%)</b>                |  |                |               |               |              |            |              |               |                      |
| Debt Service Costs   |  |                | 100           | 694           | 465          | 385        | 118          | 1,762         |                      |
| Operating Impact on Program Costs                            |  |                |               | 176           | 2,300        | 2,012      | (48)         | 4,440         |                      |
| New Positions  |  |                |               | 1             | 21           | 21         |              | 43            |                      |



**Table 1b**  
**2020 - 2024 Capital Plan**



|  | 2020 - 2024 Capital Plan |              |            |              |              |               |                       |
|--|--------------------------|--------------|------------|--------------|--------------|---------------|-----------------------|
|  | 2020                     | 2021         | 2022       | 2023         | 2024         | 2015 - 2024   | 10-Year Total Percent |
| <b>Gross Expenditures:</b>                                   |                          |              |            |              |              |               |                       |
| 2014 Capital Budget & Approved FY Commitments                |                          |              |            |              |              | 13,966        | 23.2%                 |
| Changes to Approved FY Commitments                           |                          |              |            |              |              | 10,045        | 16.7%                 |
| 2015 New/Change in Scope and Future Year Commitments         |                          |              |            |              |              | 33,274        | 55.3%                 |
| 2020 - 2024 Capital Plan Estimates                           | 4,450                    | 1,250        | 150        | 8,186        | 9,118        | 2,908         | 4.8%                  |
| 2-Year Carry Forward for Reapproval                          |                          |              |            |              |              |               |                       |
| <b>Total Gross Annual Expenditures &amp; Plan</b>            | <b>4,450</b>             | <b>1,250</b> | <b>150</b> | <b>8,186</b> | <b>9,118</b> | <b>60,193</b> | <b>100.0%</b>         |
| <b>Program Debt Target</b>                                   | <b>150</b>               | <b>2,430</b> | <b>502</b> | <b>1,031</b> | <b>2,562</b> | <b>13,801</b> |                       |
| <b>Financing:</b>  |                          |              |            |              |              |               |                       |
| <b>Debt</b>  | <b>150</b>               | <b>150</b>   | <b>150</b> | <b>1,846</b> | <b>2,914</b> | <b>22,819</b> | 37.9%                 |
| Reserves/Reserve Funds                                       | 4,300                    | 1,100        |            | 2,700        | 2,638        | 23,170        | 38.5%                 |
| Development Charges  |                          |              |            | 3,640        | 3,566        | 14,204        | 23.6%                 |
| Provincial/Federal   |                          |              |            |              |              |               |                       |
| Debt Recoverable   |                          |              |            |              |              |               |                       |
| Other Revenue  |                          |              |            |              |              |               |                       |
| <b>Total Financing</b>                                       | <b>4,450</b>             | <b>1,250</b> | <b>150</b> | <b>8,186</b> | <b>9,118</b> | <b>60,193</b> | <b>100.0%</b>         |
| <b>By Project Category:</b>                                  |                          |              |            |              |              |               |                       |
| Health & Safety  | 4,300                    | 1,100        |            | 2,700        | 5,050        | 27,178        | 45.2%                 |
| Legislated   | 50                       | 50           | 50         | 50           | 50           | 500           | 0.8%                  |
| SOGR   | 100                      | 100          | 100        | 100          | 100          | 5,435         | 9.0%                  |
| Service Improvement  |                          |              |            |              |              | 6,122         | 10.2%                 |
| Growth Related   |                          |              |            | 5,336        | 3,918        | 20,958        | 34.8%                 |
| <b>Total by Project Category</b>                             | <b>4,450</b>             | <b>1,250</b> | <b>150</b> | <b>8,186</b> | <b>9,118</b> | <b>60,193</b> | <b>100.0%</b>         |
| <b>Asset Value(\$)</b> at year-end                           |                          |              |            |              |              |               |                       |
| Yearly SOGR Backlog Estimate (not addressed by current plan) |                          |              |            |              |              |               |                       |
| Accumulated Backlog Estimate (end of year)                   |                          |              |            |              |              |               |                       |
| <b>Backlog: Percentage of Asset Value (%)</b>                |                          |              |            |              |              |               |                       |
| Debt Service Costs   | 130                      | 20           | 20         | 61           | 273          | 2,267         |                       |
| Operating Impact on Program Costs                            |                          |              |            |              |              |               |                       |
| New Positions  |                          |              |            |              |              |               |                       |

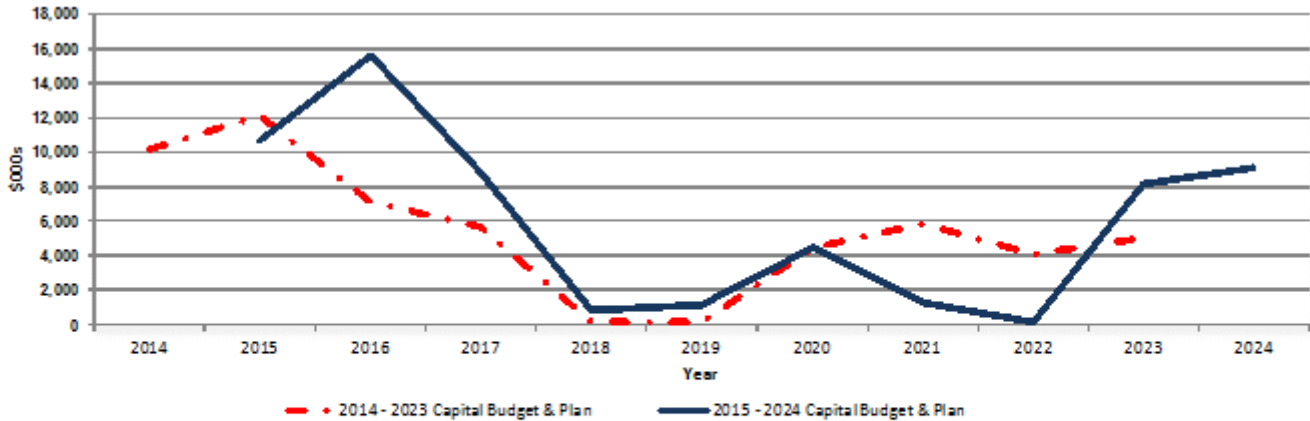


### Key Changes to the 2014 - 2023 Approved Capital Plan

The 2015 Capital Budget and the 2016 - 2024 Capital Plan reflects an increase of \$5.465 million or 10% in capital funding from the 2014 to 2023 Approved Capital Plan.

The table and chart below provide a breakdown of the \$5.465 million or 10% increase in the Capital Program on an annual basis from 2014 to 2024.

**Chart 1**  
**Changes to the 2014 -2023 Approved Capital Plan (In \$000s)**



| (\$000s)                                     | 2014   | 2015            | 2016           | 2017          | 2018           | 2019           | 2020         | 2021            | 2022            | 2023          | 2024  | 10-Year Total |
|--|--------|-----------------|----------------|---------------|----------------|----------------|--------------|-----------------|-----------------|---------------|-------|---------------|
| <b>2014 - 2023 Capital Budget &amp; Plan</b> | 10,191 | 12,092          | 7,074          | 5,650         | 150            | 150            | 4,450        | 5,851           | 4,068           | 5,052         |       | <b>54,720</b> |
| <b>2015 - 2024 Capital Budget &amp; Plan</b> |        | 10,661          | 15,633         | 8,775         | 820            | 1,150          | 4,450        | 1,250           | 150             | 8,186         | 9,118 | <b>60,193</b> |
| <b>Change - %</b>                            |        | <b>(11.63%)</b> | <b>121.07%</b> | <b>55.37%</b> | <b>446.77%</b> | <b>666.77%</b> | <b>0.07%</b> | <b>(78.62%)</b> | <b>(96.32%)</b> | <b>62.07%</b> |       | <b>10.07%</b> |
| <b>Change - \$</b>                           |        | <b>(1,431)</b>  | <b>8,559</b>   | <b>3,125</b>  | <b>670</b>     | <b>1,000</b>   | <b>0</b>     | <b>(4,601)</b>  | <b>(3,918)</b>  | <b>3,134</b>  |       | <b>5,473</b>  |

As made evident in the chart above, the \$5.465 million increase in the Capital Program is mainly due to added investments for new projects in health and safety, state of good repair and information technology projects in 2015 and 2016 that were not previously included in the 2014-2023 Capital Budget and Plan.

Changes to the 2014 – 2023 Approved Capital Plan, as reflected in Table 2 on the following page, specifically the \$6.538 million in increased capital funding in the nine common years of the Capital Plans (2015 – 2023) arise from the reprioritization of Fire Services' capital projects, based on the following factors:

- Delays in land acquisition;
- The re-location of underground sewers and electrical lines that were not foreseen during the planning stage; and
- Re-alignment of yearly funding based on historical spending rates for facility projects.

A summary of project changes for the years 2015 to 2023 totalling \$6.538 million are provided in Table 2 on the next page.

**Table 2**  
**Summary of Project Changes (In \$000s)**

| \$000s   | 2014   | 2015    | 2016   | 2017  | 2018 | 2019  | 2020  | 2021    | 2022    | 2023  | 2024  | 2015 - 2023 Total |
|--|--------|---------|--------|-------|------|-------|-------|---------|---------|-------|-------|-------------------|
| 2014 - 2023 Capital Budget & Plan                      | 10,191 | 12,092  | 7,074  | 5,650 | 150  | 150   | 4,450 | 5,851   | 4,068   | 5,052 |       | 44,537            |
| 2015 - 2024 Rec'd Capital Budget & Plan                |        | 10,661  | 15,633 | 8,775 | 820  | 1,150 | 4,450 | 1,250   | 150     | 8,186 | 9,118 | 51,075            |
| <b>Capital Budget &amp; Plan Changes (2015 - 2023)</b> |        | (1,431) | 8,559  | 3,125 | 670  | 1,000 | -     | (4,601) | (3,918) | 3,134 |       | 6,538             |

|  | Total Project Cost | 2015    | 2016  | 2017  | 2018 | 2019  | 2020 | 2021    | 2022    | 2023  | 2015 - 2023 | 2024  | Revised Total Project Cost |
|--|--------------------|---------|-------|-------|------|-------|------|---------|---------|-------|-------------|-------|----------------------------|
| <b>Previously Approved</b>                                   |                    |         |       |       |      |       |      |         |         |       |             |       |                            |
| Station B (Stn 144) Keele St. (Downsview)                    | 9,885              | (899)   | 899   |       |      |       |      |         |         |       |             |       | N/A                        |
| Replacement of Fire Station 135 - Chaplin Station            | 7,334              | (1,030) | 1,030 |       |      |       |      |         |         |       |             |       | N/A                        |
| Station A (Stn 414) Hwy 27 and Rexdale Blvd                  | 7,242              | (900)   | (825) | 2,825 |      |       |      |         |         |       | 1,100       |       | 8,342                      |
| Specialized Trucks & Equipment                               | 3,250              | (780)   | 780   |       |      |       |      |         |         |       |             |       | N/A                        |
| Bunker Suits Lifecycle Replacement                           | 3,900              | (3,700) | 3,700 |       |      |       |      |         |         |       |             |       | N/A                        |
| Fire Prevention - South District Consolidation               | 500                |         | 500   | (500) |      |       |      |         |         |       |             |       | N/A                        |
| Station G (New Station 124) Sunnybrook                       | 11,821             |         |       |       |      |       |      | (5,701) | (3,918) | 3,134 | (6,485)     | 3,918 | 9,254                      |
| Predictive Modelling Tool/Dynamic Staging                    | 300                | 365     |       |       |      |       |      |         |         |       | 365         |       | 365                        |
| Self Contained Breathing Apparatus                           | 5,824              | 2,608   |       |       |      |       |      |         |         |       | 2,608       |       | N/A                        |
| Defibrillators Lifecycle Replacement                         | 1,000              |         |       |       |      |       |      | 1,100   |         |       | 1,100       |       | 2,100                      |
| Replacement of HUSAR Equipment                               | 400                |         |       |       |      |       |      |         |         |       |             | 50    | 450                        |
| Training Simulators Rehabilitation                           | 800                |         |       |       |      |       |      |         |         |       |             | 100   | 900                        |
| <b>Total Previously Approved</b>                             | 52,256             | (4,336) | 6,084 | 2,325 |      |       |      | (4,601) | (3,918) | 3,134 | (1,312)     | 4,068 | 21,411                     |
| <b>New</b>   |                    |         |       |       |      |       |      |         |         |       |             |       |                            |
| Computer Aided Dispatch Upgrade                              | N/A                | 703     | 552   |       |      |       |      |         |         |       | 1,255       |       | N/A                        |
| Thermal Imaging Cameras                                      | N/A                | 725     | 725   |       |      |       |      |         |         |       | 1,450       |       | N/A                        |
| Repair the Special Operations Water Simulator                | N/A                | 250     |       |       |      |       |      |         |         |       | 250         |       | N/A                        |
| Renovation/Repurposing of Fire Station 424                   | N/A                | 780     | 200   |       |      |       |      |         |         |       | 980         |       | N/A                        |
| Emergency Communication System Enhancement                   | N/A                | 447     | 448   |       |      |       |      |         |         |       | 895         |       | N/A                        |
| Purchase of Gas Metres for Fire Investigators                | N/A                |         |       |       | 70   |       |      |         |         |       | 70          |       | N/A                        |
| Technical Rescue Simulator Repair                            | N/A                |         | 250   |       |      |       |      |         |         |       | 250         |       | N/A                        |
| Existing East Training Bldg - Extend Bays                    | N/A                |         |       |       | 400  |       |      |         |         |       | 400         |       | N/A                        |
| Burn House Burners/Technology Replacement                    | N/A                |         |       |       | 200  |       |      |         |         |       | 200         |       | N/A                        |
| Replace Aging Propane Pumps and Vaporizers                   | N/A                |         | 250   |       |      |       |      |         |         |       | 250         |       | N/A                        |
| The East/West Burn Houses - Wall Flame Protection            | N/A                |         |       | 250   |      |       |      |         |         |       | 250         |       | N/A                        |
| Emergency Fire Communication Workstation Console Replacement | N/A                |         | 50    | 550   |      |       |      |         |         |       | 600         |       | N/A                        |
| East Training - New Bulding of the Fire Ground               | N/A                |         |       |       |      | 1,000 |      |         |         |       | 1,000       |       | N/A                        |
| Replacement of Portable Radios                               | N/A                |         |       |       |      |       |      |         |         |       |             | 5,050 | N/A                        |
| <b>Total New</b>   |                    | 2,905   | 2,475 | 800   | 670  | 1,000 |      |         |         |       | 7,850       | 5,050 |                            |
| <b>Total Changes</b>   |                    | (1,431) | 8,559 | 3,125 | 670  | 1,000 |      | (4,601) | (3,918) | 3,134 | 6,538       | 9,118 | 21,411                     |

**Significant Capital Project Changes in Fire Services:**

The following previously approved Fire Services' capital projects have been allocated increased funding to address key priorities outlined below:

- An increase of \$1.100 million for the cost of the land required for the new station, *Station A #414 (Hwy 27 and Rexdale Blvd)* as the original site was no longer available and the cost of the alternate site was higher by \$1.100 million. As a result, funding for the design, preparation and building construction has been deferred by 1 year from 2015-2016 to 2016-2017.

- An increase in project cost of \$0.065 million for the *Predictive Modeling tool/Dynamic Staging* is required based on the results of proposals submitted in response to the Request for Proposal (RFP) process.

Cash flow funding for the following projects were re-aligned based on updated project schedules and the status of project deliverables:

- Project funding commitments of \$0.899 million and \$3.752 million for two new stations, *Station B #144 (Keele St/Downsview)* and *Station A #414 (Hwy 27 and Rexdale Blvd)* projects respectively were spread out and deferred by 1 year (from 2015 – 2016 to 2016-2017) to reflect the revised construction schedule resulting from delayed purchase of land for both stations.
- Cash flow funding of \$0.780 million and \$3.700 million for the *Specialized Trucks and Equipment* and *Bunker Suit Lifecycle Replacement* projects respectively were deferred by 1 year, from 2015 to 2016, based on previous experience in the procurement and delivery of customized fire trucks and equipment.
- Delays in 2 projects requiring 2-year carry forward funding totaling \$2.908 million for the following:
  - *Self Contained Breathing Apparatus* project requires 2-year carry forward funding of \$2.608 million. The project was delayed due to NFPA Standard revisions governing the design of the current equipment to address health & safety concerns. The vendor received final approval in November 2014 from the National Institute for Occupational Health and Safety (NIOSH) and the National Fire Protection Association (NFPA) relating to compliance of the NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus for Emergency Services, 2013 Edition. The project is anticipated to be completed in the 1<sup>st</sup> quarter of 2015.
  - The *Predictive Modeling Tool/Dynamic Staging* project requires 2-year carry forward funding of \$0.300 million as the project was delayed while the Program underwent a multi-stage procurement process which involved the use of an information gathering phase to determine the availability of desired software requirements and the availability of potential suppliers prior to the issuance of an Request for Proposal (RFP). The contract for the Predictive Modelling/Dynamic Staging project is currently under negotiation and implementation is scheduled in 2015.

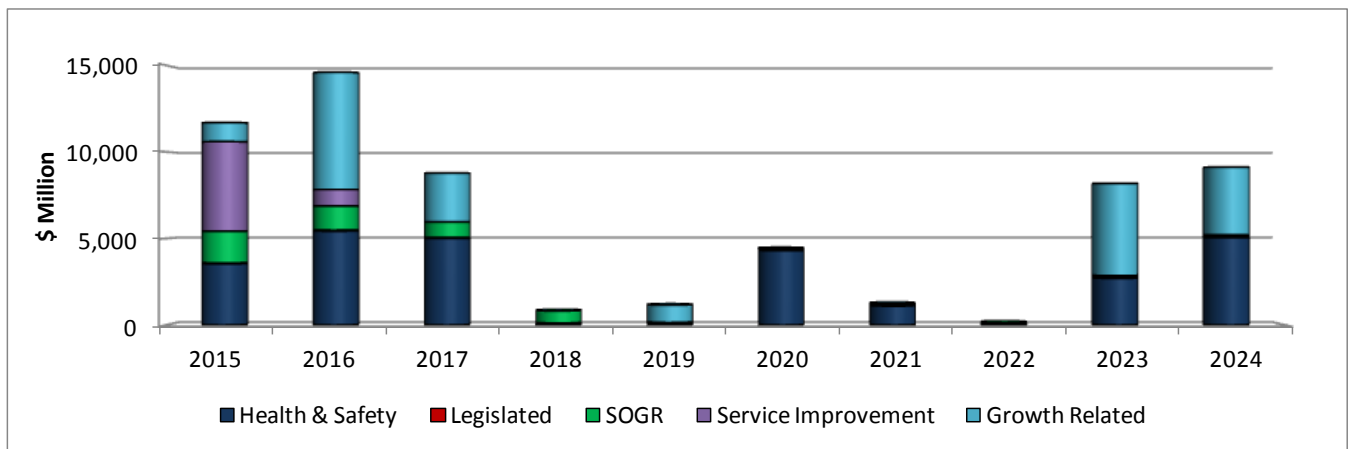
New funding of \$7.850 million was added for 13 new projects that were not previously included in the 2014-2023 Capital Plan to address health and safety and state of good repair needs.

- Upgrade the Computer Aided Dispatch System (\$1.255 million)
- Purchase of 150 thermal imaging cameras (\$1.450 million)
- Special Operations Water Simulator (\$0.250 million)
- Renovation and repurposing of Fire Station #424 (\$0.980 million)
- Enhancement of the Emergency Communication System (\$0.895 million)
- Purchase of 6 gas metres for Fire Investigators (\$0.070 million)
- Repair the Technical Rescue Simulator (\$0.250 million)
- Extend the garage bays of the East Training building (\$0.400 million)

- Replacement of burn house burners and technology (\$0.200 million)
- Replacement of aging propane pumps and vaporizers (\$0.250 million)
- Construction of wall flame protection in the East/West burn houses (\$0.250 million)
- Replacement of the emergency Fire Communication workstation console(\$0.600 million)
- New building on the fire ground – East Training building (\$1.000 million)

**2015 – 2024 Capital Plan**

**Chart 2**  
**2015 – 2024 Capital Plan by Project Category (In \$000s)**



As illustrated in the chart above, Fire Services' 10-Year Capital Plan of \$60.193 million primarily provides funding for Health and Safety projects which account for 45% of total funding, Growth Related projects account for 35%, Service Improvement projects of 10% and the balance for State of Good Repair and Legislated projects of 9% and 0.8% respectively.

- The higher funding levels for Healthy and Safety projects in 2015 to 2017 reflect the scheduled replacement of portable radios, defibrillators and personal protective clothing used by fire fighters such as self contained breathing apparatus and bunker suits. The next major replacement of bunker suits is scheduled in 2020 while the equipment replacement schedule is mainly in 2023 and 2024.
- Growth Related projects account for 35% of total funding, the majority of which is to fund the constuction of three new fire stations including the purchase of 10 specialized fire trucks and equipment. Most of the funding is required between the period 2015 to 2017 for the completion of 2 new fire stations and the purchase of specialized fire trucks and equipment. The construction of the 3<sup>rd</sup> new fire station is scheduled to begin in 2023.
- Majority of Service Improvement and State of Good Repair projects require funding starting in 2015 for completion in 2016.

**Table 3**  
**Summary of Capital Projects by Category (In \$000s)**

|  | Total App'd Cash Flows to Date* | 2015 Budget   | 2016 Plan     | 2017 Plan    | 2018 Plan  | 2019 Plan    | 2020 Plan    | 2021 Plan    | 2022 Plan  | 2023 Plan    | 2024 Plan    | 2015 - 2024 Total | Rec'd Total Project Cost |
|--|---------------------------------|---------------|---------------|--------------|------------|--------------|--------------|--------------|------------|--------------|--------------|-------------------|--------------------------|
| <b>Total Expenditures by Category</b>                        |                                 |               |               |              |            |              |              |              |            |              |              |                   |                          |
| <b>Health &amp; Safety</b>                                   |                                 |               |               |              |            |              |              |              |            |              |              |                   |                          |
| Replacement of Portable Radios                               |                                 |               |               | 5,000        |            |              |              |              |            |              | 5,050        | 10,050            | 10,050                   |
| Self-Contained Breathing Apparatus - Replacement             | 3,216                           | 2,608         |               |              |            |              |              |              |            |              |              | 2,608             | 2,608                    |
| Bunker Suits Lifecycle Replacement                           |                                 | 200           | 3,700         |              |            |              | 4,300        |              |            |              |              | 8,200             | 8,200                    |
| Defibrillators Lifecycle Replacement                         |                                 |               | 1,000         |              |            |              |              | 1,100        |            |              |              | 2,100             | 2,100                    |
| Mobile Radios Lifecycle Replacement                          |                                 |               |               |              |            |              |              |              |            | 2,700        |              | 2,700             | 2,700                    |
| Purchase of Gas Metres for Fire Investigators                |                                 |               |               |              | 70         |              |              |              |            |              |              | 70                | 70                       |
| Thermal Imaging Cameras                                      |                                 | 725           | 725           |              |            |              |              |              |            |              |              | 1,450             | 1,450                    |
| <b>Sub-Total</b>   | <b>3,216</b>                    | <b>3,533</b>  | <b>5,425</b>  | <b>5,000</b> | <b>70</b>  |              | <b>4,300</b> | <b>1,100</b> |            | <b>2,700</b> | <b>5,050</b> | <b>27,178</b>     | <b>27,178</b>            |
| <b>Legislated</b>  |                                 |               |               |              |            |              |              |              |            |              |              |                   |                          |
| Replacement of HUSAR Equipment                               |                                 | 50            | 50            | 50           | 50         | 50           | 50           | 50           | 50         | 50           | 50           | 500               |                          |
| <b>Sub-Total</b>   |                                 | <b>50</b>     | <b>50</b>     | <b>50</b>    | <b>50</b>  | <b>50</b>    | <b>50</b>    | <b>50</b>    | <b>50</b>  | <b>50</b>    | <b>50</b>    | <b>500</b>        |                          |
| <b>State of Good Repair</b>                                  |                                 |               |               |              |            |              |              |              |            |              |              |                   |                          |
| Computer Aided Dispatch Upgrade                              |                                 | 703           | 552           |              |            |              |              |              |            |              |              | 1,255             | 1,255                    |
| Training Simulators Rehabilitation                           |                                 | 100           | 100           | 100          | 100        | 100          | 100          | 100          | 100        | 100          | 100          | 1,000             |                          |
| Renovation/Repurposing of Fire Station 424                   |                                 | 780           | 200           |              |            |              |              |              |            |              |              | 980               | 980                      |
| Emergency Fire Communication Workstation Console Replacement |                                 |               | 50            | 550          |            |              |              |              |            |              |              | 600               | 600                      |
| Repair the Special Operations Water Simulator                |                                 | 250           |               |              |            |              |              |              |            |              |              | 250               | 250                      |
| Technical Rescue Simulator Repair                            |                                 |               | 250           |              |            |              |              |              |            |              |              | 250               | 250                      |
| Replace Aging Propane Pumps and Vaporizers                   |                                 |               | 250           |              |            |              |              |              |            |              |              | 250               | 250                      |
| The East/West Burn Houses - Wall Flame Protection            |                                 |               |               | 250          |            |              |              |              |            |              |              | 250               | 250                      |
| Existing East Training Bldg - Extend Bays                    |                                 |               |               |              | 400        |              |              |              |            |              |              | 400               | 400                      |
| Burn House Burners/Technology Replacement                    |                                 |               |               |              | 200        |              |              |              |            |              |              | 200               | 200                      |
| <b>Sub-Total</b>   |                                 | <b>1,833</b>  | <b>1,402</b>  | <b>900</b>   | <b>700</b> | <b>100</b>   | <b>100</b>   | <b>100</b>   | <b>100</b> | <b>100</b>   | <b>100</b>   | <b>5,435</b>      | <b>4,435</b>             |
| <b>Service Improvements</b>                                  |                                 |               |               |              |            |              |              |              |            |              |              |                   |                          |
| Replacement of Fire Station 135 - Chaplin Fire Station       | 2,972                           | 3,332         | 1,030         |              |            |              |              |              |            |              |              | 4,362             | 7,334                    |
| Predictive Modelling Tool/Dynamic Staging                    | 300                             | 365           |               |              |            |              |              |              |            |              |              | 365               | 7,242                    |
| Emergency Communication System Enhancement                   |                                 | 447           | 448           |              |            |              |              |              |            |              |              | 895               | 3,250                    |
| Fire Prevention - South District Consolidation               |                                 |               | 500           |              |            |              |              |              |            |              |              | 500               | 3,900                    |
| <b>Sub-Total</b>   | <b>3,272</b>                    | <b>4,144</b>  | <b>1,978</b>  |              |            |              |              |              |            |              |              | <b>6,122</b>      | <b>21,726</b>            |
| <b>Growth Related</b>  |                                 |               |               |              |            |              |              |              |            |              |              |                   |                          |
| Station B (Stn 144) Keele St (Downsview)                     | 4,786                           | 1,101         | 3,998         |              |            |              |              |              |            |              |              | 5,099             | 9,885                    |
| Station A (Stn 414) - Hwy 27 and Rexdale Blvd                | 3,517                           |               | 2,000         | 2,825        |            |              |              |              |            |              |              | 4,825             | 8,342                    |
| Specialized Trucks & Equipment                               | 2,470                           |               | 780           |              |            |              |              |              |            |              |              | 780               | 3,250                    |
| East Training - New Building of the Fire Ground              |                                 |               |               |              |            | 1,000        |              |              |            |              |              | 1,000             | 1,000                    |
| Station G (New Station 124) - Sunnybrook                     |                                 |               |               |              |            |              |              |              |            | 5,336        | 3,918        | 9,254             | 9,254                    |
| <b>Sub-Total</b>   | <b>10,773</b>                   | <b>1,101</b>  | <b>6,778</b>  | <b>2,825</b> |            | <b>1,000</b> |              |              |            | <b>5,336</b> | <b>3,918</b> | <b>20,958</b>     | <b>31,731</b>            |
| <b>Total Expenditures by Category</b>                        | <b>17,261</b>                   | <b>10,661</b> | <b>15,633</b> | <b>8,775</b> | <b>820</b> | <b>1,150</b> | <b>4,450</b> | <b>1,250</b> | <b>150</b> | <b>8,186</b> | <b>9,118</b> | <b>60,193</b>     | <b>85,070</b>            |

\*Life to Date approved cash flows are provided for multi-year capital projects with cash flow approvals prior to 2015, excluding ongoing capital projects (i.e. Training Simulators Rehabilitation project).

## Key Capital Projects

The 10-Year Capital Plan supports Fire Services' capital strategy to address the service gaps within the community which drives the need for new fire stations, the use of the latest technology to better respond to emergency calls and the lifecycle demands of fire stations, training facilities and equipment.

### *Health & Safety, & Legislated*

- Health and Safety projects account for \$27.178 million or 45.2% of the 10-year cash flow funding. Project funding is provided for the purchase of 150 thermal imaging cameras (\$1.450 million), 750 portable radios with a lifecycle of 7 years (\$10.050 million), 450 mobile radios that are replaced every 10 years (\$2.700 million), 3,000 Bunker Suits used by firefighters that are replaced every 5 years (\$8.200 million), and the replacement of 167 defibrillators with a lifespan of 5 years (\$2.100 million).
  - The *Thermal Imaging Cameras (TIC)* project is new in 2015 with a total project cost of \$1.450 million to purchase 150 TICs (at \$9,700 per unit) that display an image based upon heat patterns that allows firefighters to see through smoke. The use of TICs by TFS will measurably improve firefighter safety, public safety, reduction of property loss and general efficiency of fire ground emergency operations. Currently, TFS has 7 units on its 124 front line apparatus and no TICs on any fire pump or aerial apparatus.
- The Legislated project included in the 10-Year Capital Plan provides annual funding of \$0.050 million for the continued replacement of emergency response equipment required by Fire Services' HUSAR team.

### *State of Good Repair*

- The *Training Simulation Rehabilitation* project provides annual funding of \$0.100 million for the capital maintenance for the East & West Burn-houses training simulators. These burn-houses are used continually in live fire training exercises by both Operations Division and Recruit Induction. High temperature exposure and flame impingement causes deterioration of concrete, steel and brick components, protection panels and burns pads that need remediation.
- The *Computer Aided Dispatch (CAD) Upgrade* project is a new project in 2015 with funding of \$1.255 million that will ensure the current TFS CAD system will be upgraded from version 9.1 to version 9.3 and transition from an Oracle database to an SQL database format. Data generated by the CAD system will be utilized in conjunction with the Dynamic Staging/Predictive Modelling project to aid in the deployment of fire apparatus.
- The *Renovation and Repurposing of Station 424* project is a new project in 2015 with funding of \$0.980 million to renovate the current fire station to provide additional space for Emergency Planning / Fire Prevention / Public Education resources as well as some headquarters staff where space is currently over its capacity.
- The *Emergency Fire Communication Workstation Console Replacement* project (\$0.600 million), is planned in 2016 for the replacement of emergency dispatch consoles to address ergonomic issues, technology, workflow and workspace requirements in TFS' 24/7 Communications Dispatch Centre.
- The following projects have been included in 2015-2024 Capital Plan for urgent repair and maintenance of facilities and equipment used in fire fighter training:

- The *Special Operations Water Simulator* project is a new project in 2015 with funding of \$0.250 million for the repair of the existing water rescue training pool to avoid water leakage further damaging the pool area. This is an in-ground simulator pool that is specifically designed for water rescue training.
- The *Technical Rescue Simulator* project requires funding of \$0.250 million in 2016 that will provide TFS with a more climate controlled training area for year round training utilizing the simulators in the Dome (Technical Rescues).
- The *Replacement of aging Propane Pumps and Vaporizers* project requires funding of \$0.250 million in 2016 to replace the current equipment which was installed over 20 years ago and has reached the end of its life cycle.
- The *East/West Burn Houses – Wall Flame Protection* project with funding of \$0.250 million in 2017 will fund the repair of existing wall protection in the East and West Burn Houses as concrete spalling was observed during the recent structural audit conducted on the facility.
- The *East Training Bldg – Garage Bay Extension* project with total project cost of \$0.400 million in 2018 to fund the extension of garage bays in the existing facility to accommodate the storage of aerials and pumpers used for training especially during the winter season. Inside storage will ensure trucks are in good condition to maximize the use of these trucks for staff training.
- The *Burn House Burners/Technology Replacement* project with total project cost of \$0.200 million required in 2018 for the replacement of burn-house & simulators at the Toronto Fire Academy. The project will ensure year round training of newly hired fire fighters in the basic skills of fire fighting and seasoned fire fighters to maintain their learned skills and to develop new techniques and tactics.

### **Service Improvements**

- The *Rebuild of Chaplin Fire Station #135* project requires funding of \$4.362 million to complete the project in 2017. The rebuild was required as the station was deemed unsafe due to structural problems with the garage floor which could not support the weight of fire trucks.
- *Dynamic Staging/Predictive Modeling* project requires funding of \$0.365 million in 2015 to purchase a software program that runs in conjunction with Fire Services' Computer Aided Dispatch System to aid in the deployment of fire apparatus and future resource requirements.
- *Emergency Communication System Enhancement* project is a new project starting in 2015 with funding of \$0.895 million to increase the functionality of mobile applications of frontline apparatus that require additional bandwidth.
- The *Fire Prevention - South District Consolidation* project is a new project scheduled to begin in 2016 with funding of \$0.500 million for the renovation of an existing Fire Services location to accommodate the consolidation of 60 Fire prevention staff in one mid-city location allowing for enhanced coverage by Fire Prevention staff doing site visits and inspections across the South District.



**Growth Related**

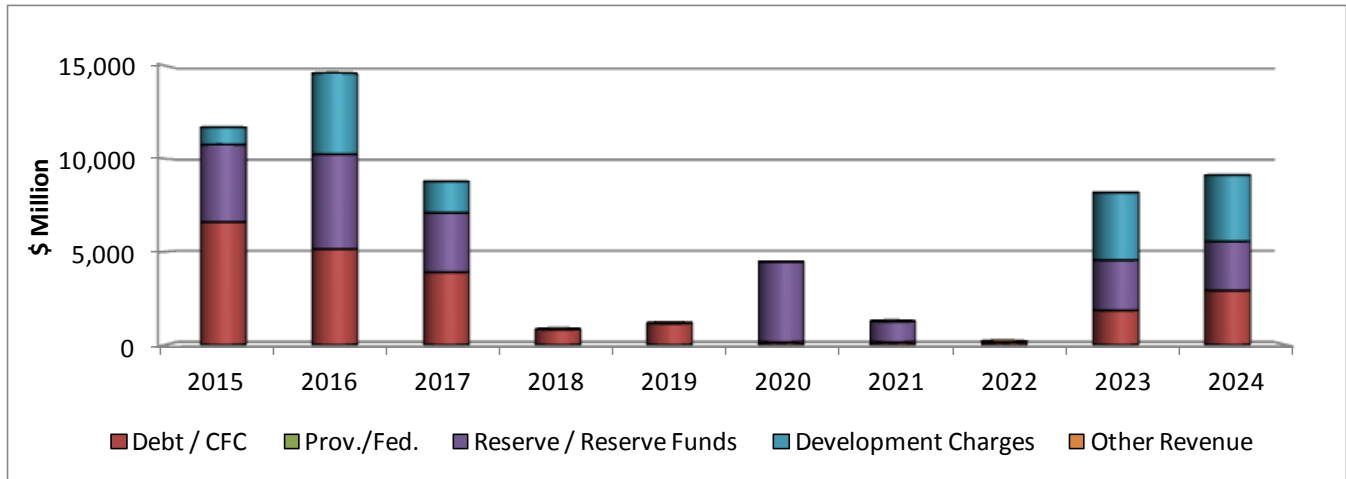
- The *Station B (Station #144) - Keele St. (Downsview)* project requires funding of \$5.099 million in 2016 and 2017 to complete the construction of a new fire station (2013-2016) and Fire Prevention office at Downsview Park (2017) as per the KPMG report and Toronto Fire Services' (TFS) Master Plan 2007.
- The *Station A (Station #414) – Hwy 27 and Rexdale Blvd* project requires funding of \$4.825 million in 2016 and 2017 to complete the construction of a new fire station in the Woodbine Racetrack at Hwy 27 and Rexdale that will allow Fire Services to respond to emergency calls with a four-minute road response time in 90% of instances. Funding of \$3.517 million was approved in 2014 for the purchase of land and the initial design and preparation of the site.
- The *Specialized Trucks and Equipment* project requires funding of \$0.780 million to complete the purchase of the remaining 3 specialized trucks in 2017.
- The *East Training – New Building of the Fire Ground* project (\$1.000 million) requires funding in 2019 to provide a climate controlled facility to ensure 12 months of continuous fire fighter training.
- The *Station G (Station #124) - Sunnybrook* project (\$9.254 million) is a new fire station scheduled to begin in 2023 to address the gaps in service levels in the Sunnybrook area as identified in a KPMG study completed in 1999 and the Master Fire Plan approved in 2007. A KPMG study recommended that Toronto Paramedic Services (PS)' existing Station #21 be co-located with the new Fire Station and discussions are underway between PS and Fire Services.

**Radio Communications System Replacement Project**

|  | 2015 Budget  | 2016 Plan | 2017 Plan | 2018 Plan | 2019 Plan | 2020 Plan | 2021 Plan | 2022 Plan | 2023 Plan | 2024 Plan | 2015 - 2024 Total |
|--|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|
| <b>Total Expenditures by Category</b>    |              |           |           |           |           |           |           |           |           |           |                   |
| <b>State of Good Repair</b>              |              |           |           |           |           |           |           |           |           |           |                   |
| Radio Communications Systems Replacement | 3,786        |           |           |           |           |           |           |           |           |           | 3,786             |
| <b>Total Expenditures by Category</b>    | <b>3,786</b> |           |           |           |           |           |           |           |           |           | <b>3,786</b>      |

- The *Radio Communications System Replacement* project is a corporate initiative involving three Programs: Fire Services, Toronto Police Service and Toronto Paramedic Services and does not reside in any one of these Programs' Capital Plans.
- This previously approved project, with a total project cost of \$51.705 million provides funding to replace the Joint Toronto Police/Fire/ PS Motorola Smartzone radio system. The 2015 Capital Budget includes an increase of \$3.786 million to the project overall cost resulting in a revised project cost of \$55.491 million.
- The project experienced issues relating to civil construction work at tower sites which resulted in site and construction costs exceeding its approved funding, thus requiring additional funding of \$3.786 million. See *Part III Issues for Discussion "Toronto Radio Infrastructure Project Status Update"* on page 28.

**Chart 3**  
**2015 – 2024 Capital Plan by Funding Source (In \$000s)**



The 10-Year Capital Plan of \$60.193 million will be financed by the following sources:

- Debt accounts for \$22.819 million or 37.9% of the financing for the 2015 Budget and 2016 – 2024 Capital Plan.
  - The debt funding exceeds the 10-year debt guideline of \$13.801 million due to the addition of 13 new projects to address Fire Services' key priorities.
  - Additional debt funding of \$9.018 million has been added to ensure Health & Safety/SOGR requirements are addressed immediately.
- Reserve funding accounts for \$23.170 million or 38.5% of the 10-Year Capital Plan's funding.
  - Fire Services' Equipment Reserve fully funds the replacement of defibrillators, bunker suits and portable radios.
  - The Capital Financing Reserve contribution of \$0.951 million and the Land Acquisition Reserve Fund (LARF) contribution of \$3.956 million will partially fund the new fire station, Station A #414 at the Woodbine Racetrack and Hwy 7 and the rebuild of the Chaplin Fire Station respectively.
    - *Note: Proceeds from the sale of the original Chaplin Fire Station to Metrolinx in the amount of approximately \$4.6 million will be transferred to the Land Acquisition Reserve Fund.*
- Development Charges represent 23.6% or \$14.204 million of the 10-Year Capital Budget and Plan's funding. Development charge funding of \$13.424 million will be used for the construction of three new fire stations and \$0.780 million will fund the purchase of specialized trucks and equipment. The Program maximized development charge funding on the portion of projects that support growth in the City.

## State of Good Repair (SOGR) Backlog

The 10-Year Capital Plan dedicates \$5.435 million to SOGR spending over the 10-year capital plan mainly for the repair of training facilities and equipment to ensure year round training of firefighters as well as systems upgrade of Fire Services communication system.

TFS does not have a state of good repair backlog for its medical equipment and personal protective equipment as these are replaced according to TFS' Equipment Replacement schedule which is required to maintain service continuity, staff and patient safety and regulatory compliance.

### *Facilities Management Services' SOGR Funding for Fire Services*

The Fire Services' 10-Year Plan does not account for SOGR backlog of Fire facilities as all asset management projects for Fire Services' existing stations and buildings were transferred to Facilities Management Services (FM) in 2010 to ensure consistency in maintenance standards applied throughout City facilities.

Facilities Management and Real Estate's (FM&RE) 10-Year Capital Plan includes funding of \$14.727 million for Fire Services which reflects an additional funding of \$4.000 million in the 2015-2017 period following a full review by TFS and FM of TFS' facilities with the recently conducted Building Condition Assessment (BCA) to determine priority repairs required at various locations. The additional investment of \$4.000 million will fund urgent facility repairs in 5 critical locations identified by Fire Services but were not previously included in FM&RE 10-Year Capital Plan estimates.

FM will continue to face funding challenges to address Fire Services' SOGR requirements. TFS' backlog of \$9.000 million in 2015 will continue to grow and by the end of 2024, the accumulated SOGR backlog is estimated to reach \$94.906 million or 27.2% as a percentage of asset value of \$348.806 million.

## 10-Year Capital Plan: Net Operating Budget Impact

**Table 5**  
**Net Operating Impact Summary (In \$000s)**

| Projects                                       | 2015 Budget |           | 2016 Plan |           | 2017 Plan |           | 2018 Plan |           | 2019 Plan |           | 2015 - 2019<br>Budget & Plan |           | 2020 - 2024<br>Capital Plan |           |
|--|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------------------|-----------|-----------------------------|-----------|
|  | \$000s      | Positions | \$000s    | Positions | \$000s    | Positions | \$000s    | Positions | \$000s    | Positions | \$000s                       | Positions | \$000s                      | Positions |
| <b>Previously Approved projects</b>            |             |           |           |           |           |           |           |           |           |           |                              |           |                             |           |
| Predictive Modelling<br>Tool/Dynamic Staging   |             |           | 60.0      |           |           |           |           |           |           |           | 60                           |           |                             |           |
| Emergency Phone System<br>Replacement          |             |           | 116.0     | 1.0       |           |           |           |           |           |           | 116                          | 1.0       |                             |           |
| Station B (Stn 144) Keele St<br>(Downsview)    |             |           |           |           | 2,060.0   | 21.0      | (50.0)    |           |           |           | 2,010                        | 21.0      |                             |           |
| Station A (Stn 414) Hwy 27<br>and Rexdale Blvd |             |           |           |           |           |           | 2,060.0   | 21.0      | (50.0)    |           | 2,010                        | 21.0      |                             |           |
| <b>New Projects -2014</b>                      |             |           |           |           |           |           |           |           |           |           |                              |           |                             |           |
| Computer Aided Dispatch<br>Upgrade             |             |           |           |           | 15.0      |           | 1.0       |           | 1.0       |           | 17                           |           |                             |           |
| Emergency Communication<br>System Enhancement  |             |           |           |           | 80.0      |           | 1.0       |           | 1.0       |           | 82                           |           |                             |           |
| Thermal Imaging Cameras                        |             |           |           |           | 145.0     |           |           |           |           |           | 145                          |           |                             |           |
| <b>Total (Net)</b>                             |             |           | 176.0     | 1.0       | 2,300.0   | 21.0      | 2,012.0   | 21.0      | (48.0)    |           | 4,440                        | 43.0      |                             |           |

The 10-Year Capital Plan will increase future year Operating Budgets by a total of \$4.440 million net over the 2015 – 2024 period to sustain the following completed capital projects:

- In 2016, \$0.176 million increased operating costs for:
  - \$0.060 million will be required for the system maintenance & licensing costs for the *Dynamic Staging/Predictive Modeling Software*.
  - \$0.116 million will be required for one permanent position (Systems Integrator) to manage and monitor the new IP based 911 system for the *Emergency Phone System Replacement* project.
- In 2017 and 2018, the completion of 2 new fire stations, *Station B #144 - Keele St (Downsview)* and *Station A #414 - Hwy 27/Rexdale Blvd* project respectively will require 21 new fire fighter positions per new station, additional maintenance and utility costs totalling \$2.010 million and one-time funding of \$0.050 million for furniture and equipment for each station. The \$0.050 million cost for furniture will be reversed in 2018 and 2019.
- In 2017, the completion of 3 projects, *Computer Aided Dispatch Upgrade*, *Emergency Communication System Enhancement* and the final purchase of *Thermal Imaging Cameras (TICs)* will result in additional \$0.095 million for maintenance and services costs and an increase of \$0.145 million to the Equipment Reserve to fund the scheduled replacement of TICs in 2025.
- Approved permanent positions will increase by a total of 43 over the 10-year time frame for the *Emergency Phone System Replacement* project (1) and 21 new fire fighter positions per station once two new fire stations are completed in 2017 and 2018.
- The operating impacts of completed projects beyond 2015 will be reviewed in future Operating Budget process.

**Table 6  
Capital Project Delivery: Temporary Positions**

| Position Title     | CAPTOR Project Number | # of Positions | Project Delivery |                   | Salary and Benefits \$ Amount( \$000s) |                |      |      |      |             |  |
|--------------------|-----------------------|----------------|------------------|-------------------|--|----------------|------|------|------|-------------|--|
|                    |                       |                | Start Date       | End Date (m/d/yr) | 2015                                   | 2016           | 2017 | 2018 | 2019 | 2020 - 2024 |  |
| Captain            | FIR908041             | 1.0            | 01/01/2015       | 12/31/2016        | 144,856                                | 144,856        |      |      |      |             |  |
| Systems Integrator | FIR907649             | 1.0            | 04/01/2015       | 12/31/2015        | 86,909                                 |                |      |      |      |             |  |
| <b>Total</b>       |                       | <b>2.0</b>     |                  |                   | <b>231,765</b>                         | <b>144,856</b> |      |      |      |             |  |

**Capital Project Delivery, Temporary Positions**

Approval of the 2015 Capital Budget will require two temporary capital positions in 2015.

- A temporary position to manage the Computer Aided Dispatch Upgrade systems' integration and testing and to ensure stability verification operations are completed as scheduled.
- A temporary position is required to finalize the implementation of technology to support the migration from a circuit switched technology to an Internet Protocol (IP) platform that impacts 911 call processing.

**Radio Communications System Replacement Project**

| Program Net Operating Costs            | 2015 Budget | 2016 Plan | 2017 Plan | 2018 Plan | 2019 Plan | 2020 Plan | 2021 Plan | 2022 Plan | 2023 Plan | 2024 Plan | 2015 - 2024 Total |
|--|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|
| <b>2015 Capital Budget</b>             |             |           |           |           |           |           |           |           |           |           |                   |
| Radio Communication System Replacement | 1,312.5     | 15.4      | 15.7      | 15.9      | 16.1      | 16.4      | 16.6      | 16.9      | 17.1      | 17.4      | 1,459.9           |
| <b>Total</b>                           |             |           |           |           |           |           |           |           |           |           |                   |
| Program Cost (Net)                     | 1,312.5     | 15.4      | 15.7      | 15.9      | 16.1      | 16.4      | 16.6      | 16.9      | 17.1      | 17.4      | 1,459.9           |
| Approved Positions                     |             |           |           |           |           |           |           |           |           |           |                   |

- The contract for the *Radio Communication System Replacement* project was awarded in June 2012 and the project is now anticipated to be completed in 2015. Fire Services has identified the annualized cost of \$1.312 million in 2015, followed by annual incremental costs of an average of \$0.016 million for the next 10 years for ongoing maintenance and support for both the new radio infrastructure (TRIP) and the fire station alerting system (COTS-FSA), system lifecycle requirements and salaries and benefits of one Systems Administrator position approved in 2014.
- The 2015 operating costs of \$1.312 million will be co-shared by TFS; Toronto Paramedic Services and Toronto Police Services and are included in their respective 2015 Operating Budgets.

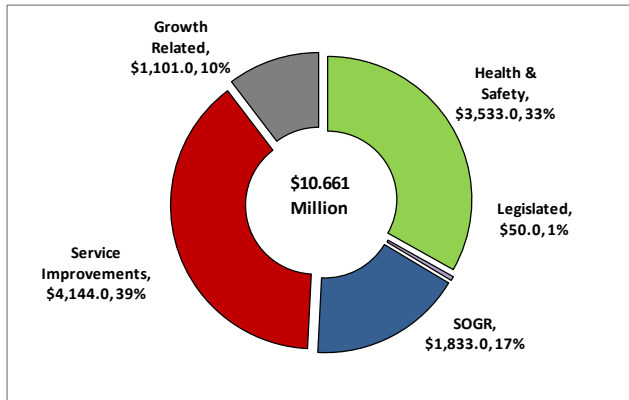


**Part II:**  
2015 Capital Budget

## 2015 Capital Budget

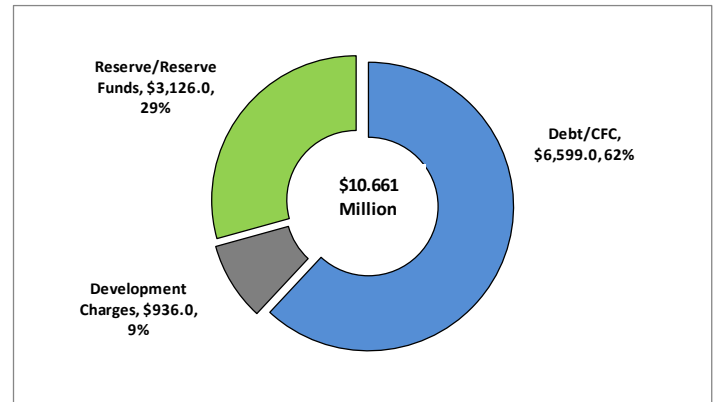
### 2015 Capital Budget by Project Category and Funding Source

**2015 Capital Budget by Project Category**  
(in \$000s)



\$10.661 million

**2015 Capital Budget by Funding Source**  
(in \$000s)



\$10.661 million

The 2015 Capital Budget, excluding funding carried forward from 2014 to 2015, requires cash flow funding of \$10.661 million.

The 2015 Capital Budget expenditures are allocated to the following categories:

- **Health & Safety (\$3.533 million, 33%)**
  - Continue the replacement of equipment and purchase of thermal imaging cameras.
- **Legislated (\$0.050 million, 1%)**
  - Complete the annual replacement of Heavy Urban Search & Rescue (HUSAR) Equipment.
- **State of Good Repair (SOGR) (\$1.833 million, 17%)**
  - Begin system enhancements, annual maintenance of training simulators, and renovation of Fire Station #424.
- **Service Improvement (\$4.144 million, 39%)**
  - Continue the replacement of Stn#135, and emergency system enhancements.
- **Growth (\$1.101 million, 10%)**
  - Continue the construction of Station B #144-(Keele and Downsview).

The 2015 Capital Budget is financed primarily by:

- **Debt (\$6.599 million, 62%)**
  - The debt of \$6.599 million exceeds the debt guideline of \$2.400 million.
  - The Program has been allocated additional debt funding to enable TFS to address key priorities in health and safety and SOGR projects included in 2015.
- **Reserve and Reserve Funds (\$3.126 million, 29%)**
  - The Land Acquisition Reserve Fund (LARF) partially funds the replacement of Station #135 Chaplin Fire Station (\$2.926 million) and the Equipment Reserve for the lifecycle replacement of bunker suits (\$0.200 million).
- **Development Charges (\$0.936 million, 9%)**
  - DC funding has been maximized for the new fire station, Station B #144 – Keele St (Downsview).



**Table 7**  
**2015 Cash Flow & Future Year Commitments (In \$000s)**

|  | 2013 and Prior Year Carry Forwards | 2014 Carry Forwards | 2015 Cash Flow | Total 2015 Cash Flow (Incl 2014 C/Fwd) | 2016   | 2017  | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Total 2015 Cash Flow & FY Commits |
|--|------------------------------------|---------------------|----------------|--|--------|-------|------|------|------|------|------|------|------|-----------------------------------|
| <b>Expenditures</b>                              |                                    |                     |                |  |        |       |      |      |      |      |      |      |      |                                   |
| Previously Approved                              | 2,908                              | 10,054              | 4,433          | 17,395                                 | 6,708  | 2,825 |      |      |      |      |      |      |      | 26,928                            |
| Change in Scope                                  |                                    |                     | 65             | 65                                     | 1,100  |       |      |      |      |      |      |      |      | 1,165                             |
| New  |                                    |                     | 400            | 400                                    |        |       |      |      |      |      |      |      |      | 400                               |
| New w/Future Year                                |                                    |                     | 2,855          | 2,855                                  | 5,625  |       |      |      |      |      |      |      |      | 8,480                             |
| <b>Total Expenditure</b>                         | 2,908                              | 10,054              | 7,753          | 20,715                                 | 13,433 | 2,825 |      |      |      |      |      |      |      | 36,973                            |
| <b>Financing</b>                                 |                                    |                     |                |  |        |       |      |      |      |      |      |      |      |                                   |
| Debt   | 2,908                              | 1,326               | 3,691          | 7,925                                  | 3,942  | 573   |      |      |      |      |      |      |      | 12,440                            |
| Other  |                                    | 5,828               |                | 5,828                                  |        |       |      |      |      |      |      |      |      | 5,828                             |
| Reserves/Res Funds                               |                                    | 47                  | 3,126          | 3,173                                  | 5,124  | 557   |      |      |      |      |      |      |      | 8,854                             |
| Development Charges Provincial/Federal           |                                    | 2,853               | 936            | 3,789                                  | 4,367  | 1,695 |      |      |      |      |      |      |      | 9,851                             |
| <b>Total Financing (including carry forward)</b> | 2,908                              | 10,054              | 7,753          | 20,715                                 | 13,433 | 2,825 |      |      |      |      |      |      |      | 36,973                            |

Approval of the 2015 Capital Budget of \$20.715 million will result in the following:

- \$2.908 million in 2013 funding that will be carried forward into 2015 requires Council re-approval for the completion of the purchase of *Self-Contained Breathing Apparatus* and the *Dynamic Staging/Predictive Modelling* projects.
- \$10.054 million in 2014 funding that will be carried forward into 2015 for 7 capital projects: *Station B (Stn 144) Keele St. (Downsview), Station A (Stn 414) Hwy 27 and Rexdale Blvd, Specialized Trucks & Equipment, Replacement of Fire Station 135 - Chaplin Station, Emergency Phone System Replacement, Fire Station GPS Repeaters, and Mobile Workstation Network Enhancement* projects.
- \$1.165 million in increased funding for change in scope projects namely, the *Dynamic Staging/Predictive Modelling* project for \$0.065 million in 2015 and *Station A #414 – Hey 7 and Rexdale Blvd* project for \$1.100 million in 2016.
- \$4.433 million for 2015 with future year commitments of \$6.708 million in 2016 and \$2.825 million in 2017 for the following previously approved projects: the *Station B #144 – Keele St. (Downsview)*, the *Station A #414 – Hwy 27 and Rexdale Blvd*, the *Replacement of Station #135 - Chaplin Fire Station* and the *Purchase of Specialized Trucks & Equipment* projects.
- New funding of \$0.400 million for projects that will be completed in 2015. These projects are the *Replacement of HUSAR Equipment*, the annual maintenance of the *Training Simulators* and the *Repair the Special Operations Water Simulator* projects.
- Multi-year funding of \$2.855 million in 2015 which will require future year commitments of 5.625 million in 2016 for 5 new projects beginning in 2015. These projects are the *Computer Aided Dispatch system upgrade*, the *Replacement of Bunker Suits*, the *Purchase of 150 thermal imaging cameras*, the *Renovation/Re-purposing of Fire Station 424 at Runnymede*, and the *Emergency Communication System Enhancement* projects.

## 2015 Capital Project Highlights

**Table 8**  
**2015 Capital Project Highlights (in \$000s)**

| Project   | Total Project Cost | 2015          | 2016          | 2017         | 2018 | 2019 | 2015 - 2019   | 2020 | 2021 | 2022 | 2023 | 2024 | 2015 - 2024 Total |
|---|--------------------|---------------|---------------|--------------|------|------|---------------|------|------|------|------|------|-------------------|
| Computer Aided Dispatch Upgrade                   | 1,255              | 703           | 552           |              |      |      | 1,255         |      |      |      |      |      | 1,255             |
| Bunker Suits Lifecycle Replacement                | 3,900              | 200           | 3,700         |              |      |      | 3,900         |      |      |      |      |      | 3,900             |
| Thermal Imaging Cameras                           | 1,450              | 725           | 725           |              |      |      | 1,450         |      |      |      |      |      | 1,450             |
| Renovation/Repurposing of Fire Station 424        | 980                | 780           | 200           |              |      |      | 980           |      |      |      |      |      | 980               |
| Emergency Communication System Enhancement        | 895                | 447           | 448           |              |      |      | 895           |      |      |      |      |      | 895               |
| Station B (Stn 144) Keele St. (Downsview)         | 9,885              | 2,000         | 3,998         |              |      |      | 5,998         |      |      |      |      |      | 5,998             |
| Station A (Stn 414) Hwy 27 and Rexdale Blvd       | 8,342              | 3,517         | 2,000         | 2,825        |      |      | 8,342         |      |      |      |      |      | 8,342             |
| Specialized Trucks & Equipment                    | 3,250              | 2,470         | 780           |              |      |      | 3,250         |      |      |      |      |      | 3,250             |
| Replacement of Fire Station 135 - Chaplin Station | 7,334              | 5,000         | 1,030         |              |      |      | 6,030         |      |      |      |      |      | 6,030             |
| Mobile Workstation Network Enhancement            | 500                | 300           |               |              |      |      | 300           |      |      |      |      |      | 300               |
| Emergency Phone System Replacement                | 1,000              | 925           |               |              |      |      | 925           |      |      |      |      |      | 925               |
| Fire Station GPS Repeaters                        | 275                | 275           |               |              |      |      | 275           |      |      |      |      |      | 275               |
| Predictive Modelling Tool/Dynamic Staging         | 365                | 365           |               |              |      |      | 365           |      |      |      |      |      | 365               |
| Self Contained Breathing Apparatus                | 5,824              | 2,608         |               |              |      |      | 2,608         |      |      |      |      |      | 2,608             |
| Replacement of HUSAR Equipment                    | 50                 | 50            |               |              |      |      | 50            |      |      |      |      |      | 50                |
| Training Simulators Rehabilitation                | 100                | 100           |               |              |      |      | 100           |      |      |      |      |      | 100               |
| Repair the Special Operations Water Simulator     | 250                | 250           |               |              |      |      | 250           |      |      |      |      |      | 250               |
| <b>Total (including carry forward funding)</b>    | <b>45,655</b>      | <b>20,715</b> | <b>13,433</b> | <b>2,825</b> |      |      | <b>36,973</b> |      |      |      |      |      | <b>36,973</b>     |

The 2015 Capital Budget, including funding carried forward to 2015, provides funding of \$20.715 million to:

- Begin 5 new multi-year projects (over a 2-year period) consisting of the following:
  - Upgrade from version 9.1 to 9.3 for TFS' *Computer Aided Dispatch (CAD)* system (\$0.703 million).
  - The purchase of *bunker suits* due for replacement (\$0.200 million)
  - The purchase of *thermal imaging cameras* that will allow fire fighters to see through smoke (\$0.725 million).
  - The *renovation/re-purposing of Station 424* at Runnymede mainly to provide additional space for Emergency Planning, Fire Prevention and Public Education resources (\$0.780 million).
  - *Enhancements to the Emergency Communication System* (\$0.447 million).

- Continue the construction of three fire stations, *Station B #144 – Keele St. (Downsview)* (\$2.000 million), *Station A (Stn #414) Hwy 27 and Rexdale Blvd.* (\$3.517 million), *Chaplin Fire Station* (\$5.000 million) and the *purchase of specialized trucks and equipment* (\$2.470 million).
- Complete the following projects:
  - The Implementation of the *Mobile Workstation Network Enhancement* to provide wireless access point at TFS stations to allow for high speed connectivity (\$0.300 million).
  - Replacement of the *emergency phone system* to support the migration from a circuit switched technology to an Internet Protocol (IP) platform (\$0.925 million).
  - *Installation of GPS repeaters* in all 83 fire stations (\$0.275 million).
  - Implementation of *Dynamic Staging/Predictive Modelling tools* will be used to better inform TFS on deployment and future resource requirements (\$0.365 million).
  - The purchase of 840 *self-contained breathing apparatus* (\$2.608 million).
  - Annual replacement of *emergency equipment used by Fire Services' HUSAR team* (\$0.050 million).
  - Annual maintenance of the *East & West Burn-houses training simulators* (\$0.100 million).
  - *Repair of water simulator* used in water rescue training (\$0.250 million).



## **Part III:** Issues for Discussion

## Issues for Discussion

### Issues Impacting the 2015 Capital Budget

#### Added Investments

- As part of the 2015 Budget process, Fire Services identified \$33.400 million of key unfunded capital priorities to address health and safety needs, increase state of good repair funding and provide key technological improvements.
- As a result of a City-wide review of debt capacity for 2015 and beyond, additional debt funding of \$7.850 million has been added to TFS' 2015-2024 Capital Budget and Plan to fund the following key priority projects as follows:

|  | 2015         | 2016         | Total        |
|--|--------------|--------------|--------------|
| <b>New Projects</b>                                  | \$000s       |              |              |
| 1. Computer Aided Dispatch Upgrade (CAD)             | 703          | 552          | 1,255        |
| 2. Renovation and Repurposing of Fire Station 424    | 980          |              | 980          |
| 3. Thermal Imaging Cameras                           | 725          | 725          | 1,450        |
| 4. Emergency Communications System Enhancement       | 447          | 448          | 895          |
| 5. Repair the Spec Ops Simulator                     | 250          |              | 250          |
| 6. The East/West Burn Houses – Wall Flame Protection | 250          |              | 250          |
| 7. Emergency Fire communication Workstation Console  | 600          |              | 600          |
| 8. Technical Rescue Simulator - Repair               |              | 250          | 250          |
| 9. Burn-House Burners/Technology Replacement         |              | 200          | 200          |
| 10. Purchase of gas metres for Fire Investigators    |              | 70           | 70           |
| 11. Replace aging Propane & Vaporizers               |              | 250          | 250          |
| 12. Existing East Training Bldg – Extend Bays        |              | 400          | 400          |
| 13. East Training – New Building on the Fire Ground  |              | 1,000        | 1,000        |
| <b>TOTAL</b>   | <b>3,955</b> | <b>3,895</b> | <b>7,850</b> |

#### Fire Services/EMS Efficiency Review Recommendation Updates

In July 2013, a report was adopted by City Council on the recommendations resulting from the Toronto Fire Services / EMS Efficiency Review conducted by a third party consulting firm, Pomax Ltd., in partnership with Berkshire Advisors, MGT of America and Stantec.

The purpose of the review was to identify and recommend opportunities that maintain the quality of these core municipal services while achieving potential efficiencies. The review included an assessment of operational improvements, a demand and resource analysis, and an evaluation of service delivery model options including organizational consolidation.

The following study recommendations put forward by the consultants required capital initiatives to be undertaken for their implementation:

1. *Reconfigure Fire resources and apparatus to achieve efficiencies while continuing to provide similar response coverage.*
  - In 2014, the purchase of 10 Specialized Trucks and Equipment project was approved with a total project cost of \$3.250 million over 2 years (2014-2016). The purchase of these custom

designed trucks (such as Trench Rescue Roll-Off truck, High-Rise response truck, Rapid Attack Pumpers, Training Division specific Pumpers) has been delayed to allow the manufacturer to meet TFS' requirements that are beyond normal parameters of the standard apparatus used by TFS. The project is now anticipated to be completed in 2016.

2. *Implement Business Intelligence reporting software and enhance business analysis capability which includes the development of Predictive Response Model, GPS Based Deployment and Traffic Signal Pre-emption.*

- The following projects are included in Fire Services' 2015-2024 Capital Budget and Plan that will enhance TFS' communication and alerting system and response protocols:
  - A Computer Aided Dispatch Upgrade project that will run in conjunction with the Predictive Modeling/Dynamic Staging software program to aid in the deployment of fire apparatus and future resource requirements.
  - A predictive modeling software project that consists of two components, A Fill-in/Dynamic Staging solution as well as Predictive Modeling solution to determine the most strategic and efficient deployment of fire resources and apparatus. (Approved in 2014 for completion in 2015.)
  - A GPS repeaters project that will improve the communication between fire stations and fire vehicles. The installation of GPS repeaters at all stations will provide uninterrupted satellite signals indoors that will eliminate delays to re-acquire satellite signals when front line vehicle's onboard GPS receivers lose signals in fire stations. (Approved in 2014 for completion in 2015.)

3. *Implement fire traffic pre-emption to improve fire response times.*

- Traffic control pre-emption gives emergency response vehicles a green light at specific signalized intersections and has shown to improve fire response times and reduce the risk of collision involving response vehicles, particularly in congested areas.
- The implementation of pre-emptive traffic light signaling that will improve fire response is currently under discussion as this initiative will impact both the Transportation Division and the Toronto Transit Commission (TTC).

*Radio Communication System Replacement Project Status Update*

- The Radio Communications System Replacement project is a corporate initiative involving three Programs: Fire Services, Toronto Police Service and Emergency Medical Services and does not reside in any one of these Programs' Capital Plans.
- The project was originally approved in 2012 with a total project cost of \$70.000 million. However, in June 2012, the contract with Motorola Solutions Canada was finalized and the total project cost was revised to \$51.705 million (approved in 2013 Capital Budget), a reduction \$18.295 million. The project was originally anticipated to be completed by mid-2014 but has now been delayed to mid-2015 due to the following:
  - In 2013, the project experienced issues relating to civil construction work at tower sites which impacted both the schedule and funding such as:

1. Several existing sites had space restrictions or landlord concerns which were not identifiable until in-project equipment layout designs were completed. Several steps were taken to address these issues including equipment room expansion, two new equipment shelters and a new site build (additional funding of \$1.500 million).
  2. An in-project audit of existing site equipment rooms indicated requirements for environmental upgrades prior to equipment installation, with examples including air conditioning, fire suppression and security alarms (additional funding of \$1.400 million).
- During a Project Steering Committee meeting held in December 2013, the financial impact of the issues identified was raised and the decision was to monitor the expenditure in 2014 as majority of the construction costs were estimates at that time.
  - In 2014, as a result of the issues identified above, the civil construction work at tower sites cost exceeded the budget by \$5.1 million which was partially offset by savings of \$1.3 million in other areas.
  - The impact of higher than expected construction costs has resulted in a funding shortfall of \$3.786 million that is required in 2015 to cover the remaining implementation milestone payments and management fees.
  - The 2015 Capital Budget includes an increase in project cost of \$3.786 million resulting in a revised project cost of \$55.491 million.

*Toronto Radio Infrastructure - Amendment to Contract 47016848 with Motorola Solutions Canada*

- An amendment to an existing contract with Motorola Solutions Canada is required due to the added constructions costs and added lifecycle costs related to equipment change order.
- The Motorola contract consists of two clearly delineated parts: one-time implementation and 15 year post-implementation. As reported to council, the project encountered cost overruns as a result of higher than expected construction costs earlier in the project. The contract item related to civil construction work has been over spent by \$2.7 million. The amendment will re-align contract items associated with change orders and restore contingency for remainder of the project.

Table 1 –Contract Values

| <b>Contract 47016848</b>                   | <b>Award Value(s)</b> | <b>Amendment</b> | <b>Revised Total Contract Value(s)</b> |
|--|-----------------------|------------------|--|
| One-time Implementation Project (Capital)  | 41,781                | 2,730            | 44,511                                 |
| 15 Year Post Warranty Services (Operating) | 18,773                | 300              | 19,073                                 |
| <b>TOTAL</b>                               | <b>60,554</b>         | <b>3,031</b>     | <b>63,585</b>                          |

*All contract values net of HST.*

- The impact of the one-time implementation portion of the amendment of \$2,730,000 net of all taxes (\$2,788,048 net of tax recoveries) is included in the 2015 Capital Budget for the Toronto Radio Infrastructure project. The incremental impact of the 15-year post implementation portion



of the amendment of \$300,000 net of all taxes (\$305,280 net of tax recoveries) is included in the three emergency services' 2015 Operating Budget , proportioned according to the Radio Infrastructure Governance Agreement as follows:

- Toronto Police Service – 80%
- Toronto Fire Services – 13%
- Toronto Paramedic Services – 7%

## Issues Impacting the 10-Year Capital Plan

### *Toronto Fire Services Master Fire Plan*

As a result of the Fire Services/EMS Efficiency Study, many of the consultant's recommendations were related to fire resources and apparatus, inspection and enforcement and prevention and education. These recommendations highlighted the need for the City to update its Fire Master Plan. The City's Fire Master Plan was last reviewed and updated in 2007.

A Fire Master Plan is a combination of a strategic and operational plan that sets out a road map for fire programs and services over the short and medium time frame. The Plan also anticipates growth and how communities will change over the time frame of the plan.

An updated Fire Master Plan is expected to be completed by the 1<sup>st</sup> quarter of 2015 which will incorporate the following:

- Recommendations resulting from the Fire Services/EMS efficiency review that were adopted by City Council in July 2013 (listed below) and consideration of the results of a City-wide risk assessment including impacts to the community fire risk profile used to establish insurance ratings.
  - *Refer the following recommendations to the Fire Chief to commence or continue implementation and report further as required:*
    - a) *Adopt an aggressive enforcement policy for Fire Code violations that impact upon the immediate life safety of the occupants of a building;*
    - b) *Establish annual Fire Code Compliance inspections of high risk occupancies;*
    - c) *Pursue mobile technology solutions to improve the efficiency of inspection and enforcement of Fire Code requirements;*
    - d) *Train fire suppression crews on key areas of the Ontario Fire Code and utilize them to augment incident prevention and inspection activities;*
    - e) *Establish a Policy requiring building owners to cover the full City cost to inspect premises for non-compliance of orders issued under the Ontario Fire Code; and*
    - f) *Implement Business Intelligence reporting software and enhance business analysis capability;*
  - *Request the Fire Chief to move forward with the fire accreditation process with target completion by 2015/2016;*

- *Request the Fire Chief to implement a strategy to increase the focus on prevention, public education, and inspection to reduce the incidence of fires and other emergencies and report further through 2013 and future years' Committee process as required;*
- *Request the Fire Chief to continue to implement dynamic staging and predictive modelling to improve the City's fire deployment and determine the most strategic and service and cost efficient placement of fire resources and apparatus; and*
- *Request the Fire Chief to explore an enhanced use of fire pre-emption including leveraging technology through other related traffic congestion management initiatives to improve fire response and report further as required;*
- The planned improvements across all fire programs and services; and
- Alignment with the updated Official Plan to ensure that fire requirements resulting from growth are considered.
  - *Note: The Official Plan sets out the vision for where and how Toronto will grow to the year 2031. The City is currently undertaking a statutory 5-Year Review of its Official Plan as required by the Planning Act.*

The 2015-2024 Capital Budget and Plan includes the construction of three new fire stations consistent with the approved 2007 Fire Master Plan as well as the renovation/replacement of one existing fire station. The two new fire stations are anticipated to be completed in 2016 and 2017 and one fire station is planned to start in 2023.

- The *Station B (Station #144) - Keele St. (Downsview)* project was approved in 2012 with a total project cost of \$9.885 million and anticipated to be completed in 2016.
- The *Station A (Station #414) – Hwy 27 and Rexdale Blvd* project was approved in 2014 with a total project cost of \$8.342 million and anticipated to be completed in 2017.
- The *Station G (Station #124) - Sunnybrook* project (\$9.254 million) is a new fire station scheduled to begin in 2023 to address the gaps in service levels in the Sunnybrook area as identified in a KPMG study completed in 1999 and the Master Fire Plan approved in 2007.



# Appendices

## Appendix 1

### 2014 Performance

#### 2014 Key Accomplishments

In 2014, Fire Services accomplished the following:

- Completed the following projects:
  - The construction of a new station at Midland and Eglinton, *Station D#221* was completed in August 2014. The project's total capital expenditures of \$7.640 million represent 100% of the approved project cost.
  - The *Replacement of HUSAR Equipment* project for \$0.050 million which represents 100% of the total project cost approved in 2014.
  - Delivered and placed in service 6 Pumper/Rescues, one HUSAR Roll-Off truck, 40 various light vehicles. 5 Pumper/Rescues that were delivered in December 2013 were also placed in service in 2014.
- Continued making progress on the following projects:
  - The *Self-Contained Breathing Apparatus* project with a significant number of equipment delivered in 2014 and the balance to be delivered in the 1st quarter of 2015. The project was delayed due to NFPA Standard revisions governing the design of the current equipment to address health & safety concerns.
  - The *Construction of the Chaplin Station* project that was delayed due to issues with moving the sewer lines that required approval from the Ministry of Environment. The project is anticipated to be completed in 2015.
  - The *specialized trucks and equipment* are being outfitted to meet Fire Services requirements and delivery of 7 specialized trucks is expected in 2015.
  - The *Dynamic Staging Predictive Modelling* project is currently under negotiations and implementation is scheduled in 2015.

## 2014 Financial Performance

**Table 9**  
**2014 Budget Variance Analysis (In \$000's)**

| 2014 Approved | Actuals at Year End |         | Unspent Balance |           |
|---------------|---------------------|---------|-----------------|-----------|
| \$            | \$                  | % Spent | \$ Unspent      | % Unspent |
| 22,544        | 8,552               | 37.9%   | 13,992          | 62.1%     |

## 2014 Experience

Toronto Fire Services' (TFS) capital expenditures for the period ended December 31, 2014 totalled \$8.552 million or 37.9 % of the 2014 approved cash flow of \$22.544 million. \$13.883 million of the unspent cash flow funding has been carried forward to 2015.

Of the funds spent, \$1.237 million was incurred for projects that were completed in 2014, including the following:

- The *Station D – New Station#221-Eglinton and Midland* project's capital expenditures totalled \$1.187 million, representing 91.6% of the 2014 approved cash flow of \$1.296 million. The project, completed at a cost of \$7.640 million representing 98.6% of the total approved project cost of \$7.531 million, provided funding for a new station in Eglinton and Midland that will improve emergency response times in the central Scarborough area.
- The *Replacement of HUSAR equipment* project's capital expenditures totalled \$0.050 million, representing 100% of the 2014 approved cash flow of \$0.050 million. The project provided funding for the purchase of depleted stock and supplementary equipment required by Fire Services' Heavy Urban Search & Rescue (HUSAR) Team.

The under spending in 2014 is mainly driven by delays in the following projects:

- The *Station B (Stn 144 - Keele Street (Downsview))* project's capital expenditures totalled \$3.902 million, representing 81.5% of the 2014 approved cash flow of \$4.786 million. The purchase of land was delayed with unspent cash flow funding of \$0.884 carried forward into 2015 to begin station design and site preparation.
- The *Replacement of Fire Station #135 (Chaplin)* project's capital expenditures totalled \$1.408 million or 52.8% of the 2014 approved cash flow of \$2.668 million. The project was delayed as the construction permit was not issued until approval to relocate sewer lines from the Ministry of Environment was received. Funding of \$1.261 million has been carried forward to 2015 to continue building construction.
- The *Self-Contained Breathing Apparatus-Replacement* project's capital expenditures totalled \$1.940 million or 34.8% of the 2014 approved cash flow of \$5.581 million. The completion of the project is now projected to occur in the second quarter of 2015 due to a delay in the revision of the National Fire Protection Association (NFPA) standard governing the design of the current equipment to address health & safety concerns. As a result, \$3.642 million of the unspent cash flow funding was carried forward to 2015 to complete the project.

- The *Predictive Modelling Tool* project with a 2014 approved cash flow of \$0.300 million had no spending as of year-end. The project was delayed while TFS underwent a multi-stage procurement process which involved the use of an information gathering phase to determine the availability of desired software requirements and the availability of potential suppliers prior to the issuance of an RFP. The contract for the Predictive Modelling/ Dynamic Staging project is expected to be finalized by April of 2015 and implementation completed by the end of June 2015. As a result, \$0.300 million of the unspent cash flow funding was carried forward to 2015.
- The *Emergency Phone System Replacement* project, with a 2014 approved cash flow of \$1.000 million did not have any capital expenditures as of December 31, 2014. The project was delayed due to 911 regulatory changes mandated by the CTRC that came into effect on January 1, 2015. Upgrades to support text to 911 were completed prior to year end to meet regulatory changes. Unspent 2014 cash flow funding of \$1.000 million has been carried forward to 2015 to develop the larger scale upgrade work plan for both primary and back up communications centres.
- The *Fire Station GPS Repeaters* project, with a 2014 approved cash flow of \$0.275 million did not have any capital expenditures as of December 31, 2014. The Request For Quotation (RFQ) was delayed due to resource constraints postponing the development of the product specifications required by TFS. As a result, \$0.275 million of the unspent cash flow funding was carried forward to 2015 to complete the project.
- The *Station A (Station #414) – Hwy 27 and Rexdale Blvd* project's expenditures totalled \$0.023 million or 0.7% of the 2014 approved cash flow of \$3.517 million. The project was delayed as the original site for the fire station was no longer available. An alternate site was found and the land purchase is expected to occur in April 2015. As a result, \$3.494 million of the unspent cash flow funding was carried forward to 2015 to complete the land purchase.
- The *Specialized Trucks & Equipment* project, with a 2014 approved cash flow of \$2.470 million did not have any capital expenditures as of December 31, 2014. These are custom designed trucks that are beyond normal parameters of the standard apparatus used by TFS and additional lead time was required for the delivery of these trucks. The total 2014 cash flow of \$2.470 million was carried forward into 2015.
- The *Mobile Work Station Enhancement* project's capital expenditures totalled \$0.042 million representing 8.5% of the 2014 approved cash flow of \$0.500 million. Software compatibility issues resulted in project delays. Unspent cash flow funding of \$0.457 million was carried forward to 2015 for the installation, testing and roll out of Wi-Fi components at select stations.

### Impact of the 2014 Capital Variance on the 2015 Budget

- Based on more updated information on the status of the 2014 capital projects, the Program requires 2-year carry forward funding of \$3.942 million (includes additional carry forward funding of \$1.034 million approved by City Council on May 6, 2015) for two projects, the *Self-Contained Breathing Apparatus* project (\$3.642 million) and *Predictive Modelling/Dynamic Staging* project (\$0.300 million).

- The Program also requires 1-year carry forward funding of \$9.942 million (includes a reduction in carry forward funding of \$0.112 million approved by City Council on May 6, 2015) for the following 8 projects:
  - *Chaplin Fire Station (Stn #135)* - \$1.261 million
  - *Emergency Phone System Replacement* - \$1.000 million
  - *Fire Station GPS Repeaters* - \$0.275 million
  - *Station A (Stn #414) Hwy 27 and Rexdale Blvd* – 3.494 million
  - *Specialized Trucks and Equipment* - \$2.470 million
  - *Mobile Workstation Network Enhancement* - \$0.458 million
  - *Station B (Stn 144) – Keele St (Downsview)* - \$0.884 million
  - *Training Simulators Rehabilitation* - \$0.100 million
- The 2-year carry forward funding of \$3.942 million and the 1-year carry forward funding of \$9.942 million are included in the 2015 Capital Budget.

Appendix 2

**Table 10**  
**2015 Capital Budget; 2016 to 2024 Capital Plan (\$000s)**

| Project  | Total Project Cost | 2015          | 2016          | 2017         | 2018       | 2019         | 2015 - 2019   | 2020         | 2021         | 2022       | 2023         | 2024         | 2015 - 2024 Total |
|--|--------------------|---------------|---------------|--------------|------------|--------------|---------------|--------------|--------------|------------|--------------|--------------|-------------------|
| Station B (Stn 144) Keele St. (Downsview)                    | 9,885              | 2,000         | 3,998         |              |            |              | 5,998         |              |              |            |              |              | 5,998             |
| Replacement of Fire Station 135 - Chaplin Station            | 7,334              | 5,000         | 1,030         |              |            |              | 6,030         |              |              |            |              |              | 6,030             |
| Self Contained Breathing Apparatus                           | 5,824              | 2,608         |               |              |            |              | 2,608         |              |              |            |              |              | 2,608             |
| Emergency Phone System Replacement                           | 1,000              | 925           |               |              |            |              | 925           |              |              |            |              |              | 925               |
| Predictive Modelling Tool/Dynamic Staging                    | 365                | 365           |               |              |            |              | 365           |              |              |            |              |              | 365               |
| Station A (Stn 414) Hwy 27 and Rexdale Blvd                  | 8,342              | 3,517         | 2,000         | 2,825        |            |              | 8,342         |              |              |            |              |              | 8,342             |
| Fire Station GPS Repeaters                                   | 275                | 275           |               |              |            |              | 275           |              |              |            |              |              | 275               |
| Specialized Trucks& Equipment                                | 3,250              | 2,470         | 780           |              |            |              | 3,250         |              |              |            |              |              | 3,250             |
| Mobile Workstation Network Enhancement                       | 500                | 300           |               |              |            |              | 300           |              |              |            |              |              | 300               |
| Replacement of HUSAR Equipment                               | 50                 | 50            |               |              |            |              | 50            |              |              |            |              |              | 50                |
| Training Simulators  | 100                | 100           |               |              |            |              | 100           |              |              |            |              |              | 100               |
| Bunker Suits Lifecycle Replacement                           | 3,900              | 200           | 3,700         |              |            |              | 3,900         |              |              |            |              |              | 3,900             |
| Repair the Special Operations Water Simulator                | 250                | 250           |               |              |            |              | 250           |              |              |            |              |              | 250               |
| Renovation/Repurposing of Fire Station 424                   | 980                | 780           | 200           |              |            |              | 980           |              |              |            |              |              | 980               |
| Computer Aided Dispatch Upgrade                              | 1,255              | 703           | 552           |              |            |              | 1,255         |              |              |            |              |              | 1,255             |
| Emergency Communication System Enhancement                   | 895                | 447           | 448           |              |            |              | 895           |              |              |            |              |              | 895               |
| Thermal Imaging Cameras                                      | 1,450              | 725           | 725           |              |            |              | 1,450         |              |              |            |              |              | 1,450             |
| Station G (New Station 124) - Sunnybrook                     | 9,254              |               |               |              |            |              |               |              |              |            | 5,336        | 3,918        | 9,254             |
| Replacement of HUSAR Equipment                               | 450                |               | 50            | 50           | 50         | 50           | 200           | 50           | 50           | 50         | 50           | 50           | 450               |
| Replacement of Portable Radios                               | 10,050             |               |               | 5,000        |            |              | 5,000         |              |              |            |              | 5,050        | 10,050            |
| Fire Prevention - South District Consolidation               | 500                |               | 500           |              |            |              | 500           |              |              |            |              |              | 500               |
| Training Simulators Rehabilitation                           | 900                |               | 100           | 100          | 100        | 100          | 400           | 100          | 100          | 100        | 100          | 100          | 900               |
| Bunker Suits Lifecycle Replacement                           | 4,300              |               |               |              |            |              |               | 4,300        |              |            |              |              | 4,300             |
| Defibrillators Lifecycle Replacement                         | 2,100              |               | 1,000         |              |            |              | 1,000         |              | 1,100        |            |              |              | 2,100             |
| Mobile Radios Lifecycle Replacement                          | 2,700              |               |               |              |            |              |               |              |              |            | 2,700        |              | 2,700             |
| Technical Rescue Simulator Repair                            | 250                |               | 250           |              |            |              | 250           |              |              |            |              |              | 250               |
| East Training - New Bulding of the Fire Ground               | 1,000              |               |               |              |            | 1,000        | 1,000         |              |              |            |              |              | 1,000             |
| Existing East Training Bldg - Extend Bays                    | 400                |               |               |              | 400        |              | 400           |              |              |            |              |              | 400               |
| Burn House Burners/Technology Replacement                    | 200                |               |               |              | 200        |              | 200           |              |              |            |              |              | 200               |
| Replace Aging Propane Pumps and Vaporizers                   | 250                |               | 250           |              |            |              | 250           |              |              |            |              |              | 250               |
| The East/West Burn Houses - Wall Flame Protection            | 250                |               |               | 250          |            |              | 250           |              |              |            |              |              | 250               |
| Purchase of Gas Metres for Fire Investigators                | 70                 |               |               |              | 70         |              | 70            |              |              |            |              |              | 70                |
| Emergency Fire Communication Workstation Console Replacement | 600                |               | 50            | 550          |            |              | 600           |              |              |            |              |              | 600               |
| <b>Total (including carry forward funding)</b>               | <b>78,929</b>      | <b>20,715</b> | <b>15,633</b> | <b>8,775</b> | <b>820</b> | <b>1,150</b> | <b>47,093</b> | <b>4,450</b> | <b>1,250</b> | <b>150</b> | <b>8,186</b> | <b>9,118</b> | <b>70,247</b>     |



## Appendix 3

### 2015 Capital Budget; 2016 to 2024 Capital Plan

## Appendix 4

### 2015 Cash Flow and Future Year Commitments

## Appendix 5

### 2015 Capital Budget with Financing Detail

## Appendix 6 Reserve / Reserve Fund Review

**Table 11: Reserve / Reserve Fund – Specific  
(\$000s)**

| Reserve / Reserve Fund Name                   | Project / SubProject Name and Number        | Projected Balance as at Dec 31, 2014 | Contributions / (Withdrawals) |                |                |                |                |                |                 |                 |                 |                 | 2015- 2024 Total Contributions / (Withdrawals) |
|---|---|--------------------------------------|-------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|--|
|   |   |                                      | 2015 Rec. Budget              | 2016 Plan      | 2017 Plan      | 2018 Plan      | 2019 Plan      | 2020 Plan      | 2021 Plan       | 2022 Plan       | 2023 Plan       | 2024 Plan       |  |
| XR2023/XR2118 Development Charges RF - Fire   | Beginning Balance                           | 5,748.4                              | 5,748.4                       | 3,543.4        | 1,375.4        | 1,989.4        | 4,336.4        | 6,715.4        | 9,109.4         | 11,527.4        | 13,960.4        | 12,802.4        |  |
|   | Station A (Stn 414) - Highway 27/Rexdale    |                                      | (2,144.0)                     | (1,166.0)      | (1,695.0)      |                |                |                |                 |                 |                 |                 | (5,005.0)                                      |
|   | Station B - (Stn 144) Keele St. (Downsview) |                                      | (1,645.0)                     | (2,421.0)      |                |                |                |                |                 |                 |                 |                 | (4,066.0)                                      |
|   | Specialized Trucks                          |                                      |                               | (780.0)        |                |                |                |                |                 |                 |                 |                 | (780.0)  |
|   | Station G (Stn 124)-Sunnybrook              |                                      |                               |                |                |                |                |                |                 |                 | (3,640.0)       | (3,566.0)       | (7,206.0)                                      |
|   | Total Withdrawals                           |                                      | (3,789.0)                     | (4,367.0)      | (1,695.0)      |                |                |                |                 |                 | (3,640.0)       | (3,566.0)       | (17,057.0)                                     |
|   | Total Proposed Contributions                |                                      | 1,584.0                       | 2,199.0        | 2,309.0        | 2,347.0        | 2,379.0        | 2,394.0        | 2,418.0         | 2,433.0         | 2,482.0         | 2,532.0         | 23,077.0                                       |
| <b>Total Reserve Fund Balance at Year-End</b> |   | <b>5,748.4</b>                       | <b>3,543.4</b>                | <b>1,375.4</b> | <b>1,989.4</b> | <b>4,336.4</b> | <b>6,715.4</b> | <b>9,109.4</b> | <b>11,527.4</b> | <b>13,960.4</b> | <b>12,802.4</b> | <b>11,768.4</b> |  |

| Reserve / Reserve Fund Name                   | Project / SubProject Name and Number | Projected Balance as at Dec 31, 2014 * | Contributions / (Withdrawals) |              |              |              |              |              |              |              |              |            | 2015- 2024 Total Contributions / (Withdrawals) |
|---|--------------------------------------|--|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|--|
|   |                                      |  | 2015 Rec. Budget              | 2016 Plan    | 2017 Plan    | 2018 Plan    | 2019 Plan    | 2020 Plan    | 2021 Plan    | 2022 Plan    | 2023 Plan    | 2024 Plan  |  |
| XQ1020 Vehicle Reserve - Fire Equipment       | Beginning Balance                    | 4,936                                  | 6,158                         | 7,181        | 3,703        | 2,301        | 3,523        | 4,745        | 1,668        | 1,790        | 3,013        | 1,535      |  |
|   | Replacement of Portable Radios       |  |                               |              | (2,625)      |              |              |              |              |              |              | (2,638)    | (5,263)  |
|   | Bunker Suits Lifecycle Replacement   |  | (200)                         | (3,700)      |              |              |              | (4,300)      |              |              |              |            | (8,200)  |
|   | Defibrillators Lifecycle Replacement |  |                               | (1,000)      |              |              |              |              | (1,100)      |              |              |            | (2,100)  |
|   | Mobile Radios Lifecycle Replacement  |  |                               |              |              |              |              |              |              |              | (2,700)      |            | (2,700)  |
|   | Total Withdrawals                    |  | (200)                         | (4,700)      | (2,625)      |              |              | (4,300)      | (1,100)      |              | (2,700)      | (2,638)    | (18,263)                                       |
| Contributions / Interest                      |                                      | 1,222                                  | 1,222                         | 1,222        | 1,222        | 1,222        | 1,222        | 1,222        | 1,222        | 1,222        | 1,222        | 1,222      | 12,224   |
| <b>Total Reserve Fund Balance at Year-End</b> |                                      | <b>6,158</b>                           | <b>7,181</b>                  | <b>3,703</b> | <b>2,301</b> | <b>3,523</b> | <b>4,745</b> | <b>1,668</b> | <b>1,790</b> | <b>3,013</b> | <b>1,535</b> | <b>119</b> | <b>119</b>                                     |

**Table 12: Reserve / Reserve Fund Review - Corporate  
(\$000s)**

| Reserve / Reserve Fund Name                   | Project / SubProject Name and Number                                 | Projected Balance as at Dec 31, 2014 * | Contributions / (Withdrawals) |                |                |           |           |           |           |           |           |           | 2015- 2024 Total Contributions / (Withdrawals) |
|---|--|--|-------------------------------|----------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
|   |  |  | 2015 Rec. Budget              | 2016 Plan      | 2017 Plan      | 2018 Plan | 2019 Plan | 2020 Plan | 2021 Plan | 2022 Plan | 2023 Plan | 2024 Plan |  |
| XQ0011 Capital Financing Reserve              | Beginning Balance  | 527,121                                | 527,121                       | 527,848        | 527,454        |           |           |           |           |           |           |           |  |
|   | Station A - Highway 27/Rexdale Contribution from Operating (Payback) |  | 727                           | (394)          | (557)          |           |           |           |           |           |           |           | (951)  |
|   | Total Proposed Contributions / (Withdrawals)                         |  | 727                           | (394)          | (557)          |           |           |           |           |           |           |           | (224)  |
| <b>Total Reserve Fund Balance at Year-End</b> |  | <b>527,121</b>                         | <b>527,848</b>                | <b>527,454</b> | <b>526,897</b> |           |           |           |           |           |           |           |  |

| Reserve / Reserve Fund Name                   | Project / SubProject Name and Number                    | Projected Balance as at Dec 31, 2014 * | Contributions / (Withdrawals) |              |           |           |           |           |           |           |           |           | 2015- 2024 Total Contributions / (Withdrawals) |
|---|---|--|-------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
|   |   |  | 2015 Rec. Budget              | 2016 Plan    | 2017 Plan | 2018 Plan | 2019 Plan | 2020 Plan | 2021 Plan | 2022 Plan | 2023 Plan | 2024 Plan |  |
| XR1012 Land Acquisition Reserve Fund          | Beginning Balance                                       | 11,810                                 | 11,810                        | 8,884        |           |           |           |           |           |           |           |           |  |
|   | Replacement of Fire Station 135- (Chaplin Fire Station) |  | (2,926)                       | (1,030)      |           |           |           |           |           |           |           |           | (3,956)  |
|   | Total Proposed Contributions / (Withdrawals)            |  | (2,926)                       | (1,030)      |           |           |           |           |           |           |           |           | (3,956)  |
| <b>Total Reserve Fund Balance at Year-End</b> |   | <b>11,810</b>                          | <b>8,884</b>                  | <b>7,854</b> |           |           |           |           |           |           |           |           | <b>(3,956)</b>                                 |