
2017 OPERATING BUDGET BRIEFING NOTE

Cost Savings and Service Level Impacts Associated with Removing One Toronto Fire Services Crew / Truck from Service

Issue / Background:

At its meeting of January 12, 2017, Budget Committee directed the Fire Chief & General Manager of Toronto Fire Services to produce a budget briefing note on the cost savings and impact on service delivery with the removal of one truck from service.

This briefing note outlines the cost savings and the service level impacts associated with the elimination of one (1) frontline emergency response crew and truck.

Key Points:

Financial Impact

Eliminating one frontline emergency response crew / truck from service results in the elimination of one full crew. Each full crew is comprised of a total of 21 staff positions – 4 Captains and 17 Firefighters.

Removing one crew / truck from service would result in annual savings of \$2,499,132 gross and net.

Table 1: Summary of one (1) crew / truck reduction scenario

	Annual Cost Impact	FTEs	Trucks/Crews
Remove one crew / truck from service	\$2,499,132	21	1

Service Level Reduction Methodology

In order to determine which crew / truck would be eliminated in the event of a Council directed reduction in fire protection service levels, a comprehensive analysis was undertaken to identify the crew / truck that would represent the least overall impact if removed from service.

The methodology for identifying the crew / truck that would be eliminated includes identifying the crew / truck with the least number of emergency responses in 2015 and 2016. Only trucks / crews from multi-truck fire stations were considered. Specialized trucks, including hazardous

materials, high rise, squads and air/light trucks were not considered for reduction within the scenarios. Also, Fire Station 335 (Toronto Island) was exempted and was therefore not considered.

Table 2 outlines the number of emergency responses completed by the 3 least busy trucks in 2015 and 2016 in accordance with the above-stated methodology.

Table 2: Crew / Truck reductions

Rank	Truck/Crew	Emergency Responses in 2015 / 2016*	Ward	Command	District
1	A321	2015 - 903 2016 - 730 2 year total: 1,663	Ward 26 Don Valley West, Councillor Burnside	South	32
2	A411	2015 - 879 2016 - 964 2 year total: 1,843	Ward 7 York West; Councillor Mammoliti	West	41
3	A324	2015 - 964 2016 - 913 2 year total: 1,877	Ward 30 Toronto-Danforth; Councillor Fletcher	South	32

* For context, in 2015 and 2016, the busiest truck in the TFS fleet was Pumper 314, with 4,658 emergency responses in 2016 and 4,711 emergency responses in 2015 for a two-year total of 9,369.

As outlined in Table 2, Aerial 321 would be removed from service in the event that Council were to direct a one (1) crew / truck reduction in 2017.

Aerial 321 is assigned to Fire Station 321, located at 231 McRae Drive in the Bayview Avenue and Eglinton Avenue East area.

City-Wide Performance and Service Impact

To determine the predicted performance impacts arising from a one (1) crew / truck reduction, both *Total Response Time* for the first responding crew / truck and the time required for the assembly of an *Effective Firefighting Force* were considered.

Total Response Time

- Total Response Time is the elapsed time from the initial notification of an emergency to the arrival of the first crew / truck on the emergency scene.
- The NFPA Performance Benchmark for Total Response Time is 6:20min, 90% of the time.
- As noted in Table 3, on a city-wide basis in 2016, TFS met this performance benchmark 82.33% of the time.
- Removing one truck from service is anticipated to result in a 0.3% reduction in City-wide performance for Total Response Time, resulting in an anticipated after-reduction performance of 82.03%.
 - This is estimated to result in an additional 333 emergency incidents falling below the Total Response Time performance standard of 6:20min.

Table 3: Performance to NFPA Standard Benchmarks - Total Response Time (6:20min)

Scenario	% Incidents Meeting Target	# of Incidents Not Meeting Target
2016 Performance*	82.33%	19,638
Impact of removing 1 Crew / Truck	-0.30%	333
Estimated Performance*	82.03%	19,972

*Based on 111,139 emergency incidents city-wide in 2016

Effective Firefighting Force

- Effective Firefighting Force Response Time is the elapsed time from initial notification to arrival of the number of Firefighters required at a fire in order to safely and effectively perform fire suppression operations. The number of Firefighters varies depending upon occupancy type and occupancy risk level.
- The NFPA Performance Benchmark for Effective Firefighting Force is 10:20min, 90% of responses.
- As noted in Table 4, on a City-wide basis in 2016, TFS met this performance benchmark 87.31% of the time.
- Removing one truck from service is anticipated to result in a 0.4% reduction in City-wide performance for Effective Firefighting Force, resulting in an anticipated after-reduction performance of 86.91%.
 - This is estimated to result in an additional 64 emergency incidents falling below the Effective Firefighting Force performance standard of 10:20min.

Table 4: Performance to NFPA Standard Benchmarks Effective Firefighting Force (10:20min)

Scenario	% Incidents Meeting Target	# of Incidents Not Meeting Target
2016 Performance*	87.31%	2,042
Impact of removal of 1 Crew / Truck	-0.40%	64
Estimated Performance*	86.91%	2,107

*Based on 16,094 fires city wide in 2016

Ward Performance and Service Impact

As noted in Table 5, the five most impacted Wards would be Wards 26, 25, 22, 34 and 29 with anticipated impacts to Total Response Time and Effective Firefighting Force performance as shown below.

Table 5: Ward Performance

Total Response Time (6:20 min, 90% of the time)	Ward 26 Don Valley West Councillor Burnside		Ward 25 Don Valley West Councillor Robinson		Ward 22 St. Paul's Councillor Matlow		Ward 34 Don Valley East Councillor Minnan-Wong		Ward 29 Toronto-Danforth Councillor Fragedakis	
	% met	# not met	% met	# not met	% met	# not met	% met	# not met	% met	# not met
2016 Performance	69%	698	76%	514	89%	293	69%	673	87%	207
% Service Level Performance Impact	-7%	166	-3%	57	-2%	48	-1%	17	-1%	11
Estimated Performance (based on 2016 data)	61%	863	73%	572	87%	341	68%	691	86%	219
Effective Firefighting Force (10:20 min, 90% of the time)	Ward 26 Don Valley West Councillor Burnside		Ward 25 Don Valley West Councillor Robinson		Ward 22 St. Paul's Councillor Matlow		Ward 34 Don Valley East Councillor Minnan-Wong		Ward 29 Toronto-Danforth Councillor Fragedakis	
	% met	# not met	% met	# not met	% met	# not met	% met	# not met	% met	# not met
2016 Performance	79%	64	84%	38	89%	42	62%	68	91%	17
% Service Level Performance Impact	-8%	24	-4%	8	-2%	7	-1%	3	-1%	2
Estimated Performance (based on 2016 data)	71%	88	80%	46	87%	49	61%	71	90%	19

Additional Implications

- *Fire Underwriters' Survey (FUS)*
 - FUS has advised that the 4 crews / trucks eliminated in the 2014 budget represented all remaining redundancy within TFS and that any further reductions would constitute a fire protection service level reduction.
 - TFS will likely be unable to achieve the increase in Toronto's PFPC from the existing 3 to 2 (as previously directed by Council) without additional staffing.
 - At its meeting of December 16, 17, and 18, 2013, City Council approved Toronto Fire Services strategies to improve the Public Fire Protection Classification (PFPC) from Class 4 to Class 3 and from Class 3 to Class 2: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.CD25.1>
 - In 2014, FUS estimated that transitioning from PFPC 3 to PFPC 2 would reduce commercial and multi-residential insurance premiums by a further \$7.4 million annually in Toronto.

- *TFS Transformation Plan*
 - The reduction of frontline crews / trucks may affect the opportunity to move forward with the TFS Transformation Plan in its current state. Transformation Plan actions such as the items noted below will need to be reassessed as a result:
 - The launch of NFPA Inspector and Public Educator qualifications into the TFS Operations Division may be delayed and will need to be reassessed.
 - The launch of the new Operations-Based Fire Code Re-inspection Program may be delayed and will need to be reassessed.
 - Further, the opportunity to transition from FUS PFPC 3 to PFPC 2, by leveraging Operations crews (and without adding the corresponding 33 Fire Prevention staff) is likely to be delayed and will need to be reassessed.
 - This is as a result of corresponding delays in 2017 Operations Firefighter recruit classes.

Prepared by: Matthew Pegg, Fire Chief & General Manager (I)

Further information: Matthew Pegg, Fire Chief & General Manager (I), 416-338-9051, matthew.pegg@toronto.ca

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