



## Council Report

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**Report Number:** FIRE2022-001

**Meeting Date:** April 19, 2022

**Title:** Fire Service Fleet

**Author and Title:** Terry Jones, Fire Chief

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### Recommendation(s):

**That** Report FIRE2022-001, **Fire Service Fleet**, be received; and

That the procurement process begin immediately for the acquisition of one (1) replacement pumper truck and one (1) replacement tanker truck.

**Department Head:** \_\_\_\_\_

**Financial/Legal/HR/Other:** \_\_\_\_\_

**Chief Administrative Officer:** \_\_\_\_\_

## **Background:**

At the Council Meeting of March 21, 2021, Council adopted the following resolution:

### **CR2021-189**

That report PUR2021-003, Request for Proposal 2020-79-CP Supply and Delivery of One New Rescue Pumper, be received

### **CR2021-190**

That Council, in conjunction with Staff and any outside professional help, look at the equipment the Fire Department is currently using and how we can go forward with a more affordable option while maintaining the level of service.

This report addresses that direction.

## **Rationale:**

To address Resolution **CR2021-190**, Performance Concepts Consulting was retained by the City of Kawartha Lakes in 2021 to execute a Fire Service Modernization Review under the provincial Audit and Accountability Fund. The review included an evaluation of the Fire Service planning initiatives and reports such as the 2020 Master Fire Plan and the Fire Truck Specification Review completed in 2017. The review also included an evaluation of existing Kawartha Lakes Fire Service delivery performance metrics as well as financial and cost data sets (capital and operating budgets, asset management plan, etc.).

The Fire Service has reviewed the recommendations regarding fire fleet in the Fire Modernization Review report, Master Fire Plan report and the Fire Truck Specification Review report.

The Modernization Review found that the tanker shuttle certification for the City of Kawartha Lakes is at risk of being discontinued and recommends that the Fire Service continue the life cycle replacement of various fire trucks. That report can be reviewed on the City's website: [Fire Services Modernization Review](#)

The three options in the report are listed below.

**Option 1** - delivers a “big bang” solution by bringing Kawartha Lakes into immediate compliance in 2022 and every year thereafter. Tanker Shuttle cancellation risk is definitively eliminated. However, Option 1 does so by requiring unaffordable \$750K to \$4.7M annual funding contributions for a number of years - including an immediate quintupling of the current \$1.1 M budgeted capital replacement contribution for 2022. Option 1 generates choppy capital funding streams over time and fails to deliver a window of capital spending “smoothing” over the next 3 years.

**Option 2** addresses the existing lifecycle replacement compression problem by establishing a “zone of near compliance” that limits the replacement period for any pumper/tanker to 22 years or less. Problematically there are more “red shaded” non-compliance years than there are “black shaded” compliance years. It is unclear whether persistent 2-year replacement lateness would pass muster for maintaining Tanker Shuttle accreditation. On a positive note, the annual capital funding streams would be noticeably less choppy than Option 1.

**Option 3** represents a smooth approach to lifecycle replacement. This option would require an annual contribution in the amount of 2.35 million applied annually and recommends the purchase of three trucks per year. This option would catch up the backlog of the life cycle replacement by 2025. There is a high probability that this option will ensure long-term Tanker Shuttle accreditation and safeguard existing insurance discounts for residents.

The Modernization Review recommends option 3 and notes in their report that without significant changes in the fire truck replacement financial plan the tanker shuttle certification will be eliminated which would cause the elimination or reduction of home insurance discounts for Kawartha Lakes households.

The Master Fire Plan notes that by ensuring that the vehicles are being replaced on a regular schedule, the City is demonstrating due diligence towards ensuring a dependable response fleet for the Fire Department and the community it serves. This in turn will keep the community's fire rating in good stance, which can also reflect on commercial and residential insurance rates.

The Master Fire Plan also noted that there is standard replacement cycles for fire trucks that is based on the FUS (Fire Underwriters Survey) recommendations for front line vehicles. This replacement cycle falls in line with the industry standards of 15 and 20 years, depending on the vehicles function.

A standard that supports a regular replacement schedule of fire vehicles is NFPA 1911, *Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus*. This standard includes guidance on retirement criteria for fire apparatus. NFPA 1911 recommends that all front-run vehicles are replaced on a 15 to 20-year cycle, depending on the community size.

Although there is not currently a standard that legally mandates the replacement of emergency vehicles, it must be kept in mind that it is critical to replace these and other apparatus before they become unreliable. Firetrucks are reassigned during their lifespan throughout the city to extend their life cycle. Over the long term, delaying the

replacement is inadvisable as it will add to the overall maintenance costs of the apparatus and can have an effect on insurance costs based on the Fire Department's FUS rating.

The specifications used by the Fire Service for the purchase of fire trucks was reviewed in 2017. The review team consisted of Fire Service members and members of council.

The following recommendation was passed at the council meeting of November 14, 2017.

**CR2017-975**

**Resolved that** Report FIRE2017-003, Fire Truck Specification Review be received; that council endorse the recommendation of the Fire Truck Specification Review Committee to continue with the purchase of City of Kawartha Lakes Fire Trucks to the current edition of the NFPA1901 standard including the items outlined in Table 1 of report FIRE2017-003; and

**That** the Fire Truck Specification Review Committee be dissolved as it has completed its mandate.

The report of the review committee is attached as Appendix A.

The Fire Truck Specification Review completed in 2017 endorsed NFPA 1901: *Standard for Automotive Fire Apparatus* and included five optional features best suited for Kawartha Lakes:

- Ensure that the City's Fire Service truck specifications upholds the legislated requirements under the *Provincial Fire Protection and Prevention Act (FPPA)*, NFPA 1901 and CANULC-S515,
- Ensure standardization of the fire truck fleet,
- Ensure the fire truck specifications meet the department's requirements to support suppression of fires and mitigation of other hazardous situations,
- Ensure the Fire Services capability to transport personnel and equipment for fire suppression and other hazardous situations.

Standardization of the fire truck fleet refers to:

- Similar truck in all stations for a familiarity point of view from an operational standpoint (Occupational Health and Safety issue and Training Concern)
- Compartment/equipment similarity established through performance management greenbelt projects (Occupational Health and Safety issue and Training Concern)
- Truck movement/placement from station to station

The Modernization Review report concurs with the findings reported in the Master Fire Plan where it states in relation to vehicle replacement and refurbish, the industry standard for the design and replacement of vehicles is NFPA 1901 and NFPA 1911. It is recommended by the Modernization Review, the Master Fire Plan and the Fire Service that these and other related NFPA standards relating to vehicle design, replacement and refurbishing be utilized. The five optional features included in the Fire Specification Review deliver measurable improvement in functionality and reduced maintenance. The Fire Truck Specification Review provides appropriate guidance for the life-cycle replacement of the pumper and tanker fleet required to maintain Tanker Shuttle Accreditation.

The immediate recommendation the Fire Service requires to act on now is to continue the life cycle replacement of the fire trucks. There is no additional funding required to do this in 2022 as there is a Pumper truck approved in the capital budget in 2020 and a Tanker truck approved in the capital budget in 2021. The RFP issued in 2020 showed that the approved budget was not enough to fund the purchase at that time and since then there has been market increases of approximately 15%. There are sufficient funds available in the Fire portion of the fleet reserve. The recent increases in apparatus pricing across Ontario have more to do with supply chain challenges than design specifications and these increases are compounding with time.

The Modernization Review report notes that a significantly larger annual lifecycle dollar contribution will be required in order to comply with O. Reg. 588/17 (Asset Management Planning for Municipal Infrastructure), and the Insurance Bureau of Canada standards to avoid triggering property insurance spikes generated by cancelled tanker shuttle accreditation.

The Fire Service concurs with the recommendation of Option 3 in the Modernization Review and recommends that the procurement process begin immediately for the trucks approved in the 2020 and 2021 capital budget as the hold placed on the procurement of fire trucks has interrupted the pumper and tanker life cycle replacement and asset management plan.

Option 3 of the Modernization Review recommends an increase in the amount transferred annually from the Fire Service operating budget to the fire portion of the fleet reserve. For future years a reserve funding strategy will be considered though asset planning and long term financial planning.

## Alignment to Strategic Priorities

### Good Government

Recommendations in this report will ensure municipal assets are well maintained and well managed. A continuous review of operational efficiencies ensures that best municipal practices are adopted.

### A Vibrant and Growing Economy

Recommendations in this report will support effective Fire Service response operations and service delivery.

### An Excellent Quality of Life

Recommendations in this report will support efficient delivery of Fire Service response operations and assists the general well-being and overall health and safety of residents and employees.

## Financial/Operation Impacts:

FUNDING AVAILABLE FOR TRUCK PURCHASES			
		Funding Source	Amount
Pumper Truck	2020	2020 Capital Budget approved	\$600,000 (189,600 from DC reserve)
Tanker Truck	2021	2021 Capital Budget Approved	\$625,000 (139,375 from DC reserve)
	2022	Uncommitted Fire Fleet Reserve	\$3,173,102

An RFP was released in 2020 for the purchase of the pumper truck approved in the capital budget. The lowest tender that was received was \$75,000 more than the approved budget. It was recommended at the time that the deficit in the project be funded from Development Charges and the Fire portion of the Fleet Reserve. This recommendation was not approved.

More recently the Fire Service has received information that there is approximately a 15% increase in the cost of the trucks since the last RFP was received and the build time has increased to 14 months. There is an expectation that the approved capital budgets do not reflect current market prices for firetrucks and it is recommended that the deficit in these projects be funded from the uncommitted fire fleet reserve.

To catch up the back log of the life cycle replacement of fire trucks the Fire Service recommends the following plan:

YEAR	VEHICLE REPLACING	FUNDING SOURCE	AMOUNT
2022	2000 Pumper	Approved 2020 Capital Budget/Fire Fleet Reserve	Approved Budget = \$600,000 Estimate from Fire Fleet Reserve = \$200,000
2022	2000 Tanker	Approved 2021 Capital Budget/Fire Fleet Reserve	Approved Budget = \$625,000 Estimate from Fire Fleet Reserve = \$225,000
2023 Capital Budget	1999 Pumper 2000 Tanker 2000 Tanker	Fire Fleet Reserve/DC Charges Fire Fleet Reserve/DC Charges Fire Fleet Reserve/DC Charges	Cost to be determined after an RFP is completed
2024 Capital Budget	2001 Pumper 2003 Tanker 2003 Tanker	Fire Fleet Reserve/DC Charges Fire Fleet Reserve/DC Charges Fire Fleet Reserve/DC Charges	Cost to be determined after an RFP is completed

In 2022 there is a balance of \$3,173,102 in the uncommitted Fire portion of the fleet reserve.

A reserve funding strategy will be considered through asset planning and long term financial planning for the future years' annual contribution to the Fire portion of the fleet reserve.

### **Consultations:**

Manager of Corporate Assets  
Treasurer

## **Attachments:**

Appendix A – Fire Truck Specification Review Report



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**Department Head: Terry Jones, Fire Chief**