

Supplementary Budget – Briefing Note**2018 Budget***One page brief per request***Briefing Note required for:****-items >\$50,000****-changes in FTE**

Dept	Division	Business Unit	Item	Base Supp	Amount	FTE Impact
CD	FES	14042	E-Cutters (Jaws of Life) for Volunteer Stations	S	60,000	N/A

BACKGROUND:

-BRIEFLY provide why this is a request
(eg. Based on 3 year history)

Between the years 2000 and 2010 motor vehicle manufacturers moved to a manufacturing process that included ultra-high strength steel (boron and martensite steel) for the purpose of increasing passenger safety. This change involved increasing the percentage of this metal (involved in manufacturing these vehicles) gradually over time. Manufacturers focused on increasing this content in the very same places where first responders cut, spread and stretch vehicles to extricate persons who are trapped as a result of a collision or mishap. By 2016, 47% of each new vehicle was composed of this high strength steel. By 2020 that percentage will increase to 63%. As a result, across North America, fire departments are now scrambling to upgrade their rescue tools. Currently CKFES has (or will have) 8 sets of cutters that are capable of cutting into vehicles to remove roofs, open doors, remove damaged components etc. The initial deployment focus was to first, issue cutters to those stations along Hwy 401 corridor (Orford, Ridgetown, Harwich North, Raleigh North and Tilbury) , and then to the busiest stations. The deployment to those stations along the 401 corridor is now complete. The busiest stations for motor vehicle collision response are: Station 18- Blenheim, Station 4 - Dover, Station 7 - Chatham South, Station 6 - Dresden. This request is for four additional cutters is to continue with our deployment strategy. CKFES requests some discretion in deployment based on station isolation.

COMMENT:

- provide any further details if required, impact to user fees, etc
(eg. Gross expenses, any revenues, subsidies, etc.)

CKFES recommends the purchase of four (4) motor vehicle extrication electric cutters at a cost of approximately \$15,000.00 per cutter. This will enable CKFES to effectively rescue trapped persons by cutting into the high strength metal used in newer (2000 and beyond) motor vehicles. This will also reduce maintenance costs. For example, the new electric cutters run on batteries, while at the same time exerting over twice the force per square inch of new hydraulic cutters (300,000 to 142,000) and six times the force per square inch of old hydraulic cutters (300,000 to 54,000). They also do not require high pressure hydraulic lines, fluids, fuel and parts that have to be replaced on a regular basis. All of the current cutter inventory is now past its realistic life cycle and most parts are now either difficult or impossible to obtain. Battery operated extrication tools are quiet and thereby reduce the stress experienced by persons trapped in vehicles.