

# Report

Date December 1, 2021  
Subject Replacement Fire Department Vehicle

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File:

## PURPOSE

To provide Council with the additional information requested regarding the suitability of replacing the ageing Fire Department pick-up with an electric, hybrid or standard fuel vehicle.

## BACKGROUND

At the November 17, 2021 regular Council meeting, Council deferred consideration on the replacement of a Fire Department vehicle pending a report from staff which included a review of the availability and suitability of the department utilizing a hybrid vehicle in place of a standard fuel vehicle.

## DISCUSSION

### Vehicle requirements

- *Towing Capacity, length of travel and required infrastructure*

This vehicle must meet specific requirements of provincial and local fire deployments to accommodate the specific use it will be required for. It must have a towing capacity for the North Cowichan Sprinkler Protection Unit or the trailers that the province supplies for use if deployed provincially. The Fire Department also has four other large trailers with response units such as UTV's and boats. Part of our mutual aid agreement with the Cowichan Valley Regional District (when they do not have drivers or vehicles available) includes towing the CVRD trailer when needed.

Currently, there is a very limited supply of hybrid (fuel/electric) heavy-duty  $\frac{3}{4}$  ton or 1-ton pick-ups available on the market that match the specific needs of the Fire Department. The major local manufacturers, Ford, GMC, Chevy, Dodge or Hyundai all have a form of hybrid pick-up trucks but only have models in  $\frac{1}{4}$  ton and  $\frac{1}{2}$  ton. Some of the manufacturers currently have these pick ups available but not in  $\frac{3}{4}$  ton or 1 ton. With the required payload of five firefighters plus all firefighting gear as well as the towing of a large trailer loaded with sprinkler protection equipment, the requirements for payload and towing limit the pick up to  $\frac{3}{4}$  or 1-ton.

Full vehicle weight including trailer and payload of a fully staffed and equipped vehicle, needs to be considered in order to comply with the *Motor Vehicle Act Regulations*. The *Motor Vehicle Act Regulations* prohibits the operation of unsafe or improperly loaded vehicles that exceed either the Gross Axle Rating (GAWR) or the Gross Vehicle Weight Rating (GVWR). These regulations apply to all types of towing, whether utility or boat towing. These regulations also severely limit the type of pick-up truck available.

When deployed with the sprinkler unit, either locally or provincially, our service agreement identifies the only type of vehicle that can be supplied. The excerpt from the Provincial guidelines for unit deployment states:

- Crew configuration 5-person crew, 2 pick-up trucks required.
- ¾ ton 4-wheel drive capable, with at least five passenger seats with functioning seat belts; (preferred 8 foot box).

When providing fire fighting service, the length of travel is sometimes considerable. The unit members may be required to camp some distance from civilization, and there would be no infrastructure to accommodate electric vehicles. As such, electric vehicles have been ruled out of being a viable option. The 1-ton diesel truck is the most economical vehicle capable of towing the SPU, UTV and boats and travelling that distance without services. Also, provincial deployments have remote fuel depots whereby large vehicles can refuel, and the coordination between resources is extended with the same type of fuel.

## OPTIONS

### 1. **(Recommended Option)** THAT Council:

- (1) Authorize the purchase of a newer "standard fuel" used vehicle, up to a maximum cost of \$70,000 plus tax, to replace the 1999 pick-up truck currently in use by the Fire Department; and,
- (2) Direct staff to amend the 2021-2025 Financial Plan Bylaw to increase the Fire Capital expenditures by \$70,000.

## IMPLICATIONS

The technology for hybrid or electric vehicles for emergency services or heavy towing is not available or has limited availability based on the required infrastructure. Currently, electric pick-up trucks are at least a year or more away with a waiting list, and they don't have the towing capacity or payload required for the heavy trailers that the Fire Department is required to tow.

## RECOMMENDATION

THAT Council:

- (1) Authorize the purchase of a newer "standard fuel" used vehicle, up to a maximum cost of \$70,000 plus tax, to replace the 1999 pick-up truck currently in use by the Fire Department; and,
- (2) Direct staff to amend the 2021-2025 Financial Plan Bylaw to increase the Fire Capital expenditures by \$70,000.

Report prepared by:

*Martin Drakeley*

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Martin Drakeley  
Manager, Fire and Bylaw Services

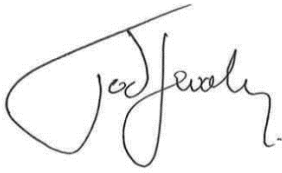
Report reviewed by:

*Ted Swabey*

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Type Director/Manager Name  
Choose Director/Manager's Title.

**Approved to be forwarded to Council:**



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Ted Swabey  
Chief Administrative Officer

Attachments:

(1) 2017-11-17 Staff Report