



Subject: **Bush Buggies Replacement**

Meeting Date: Tuesday, August 20, 2024

Prepared By: Debra Grosfield, CLGM Protective Services Manager

Presented By: Debra Grosfield, CLGM Protective Services Manager and Dan Marsellus, Rural Fire Chief

STRATEGIC PLAN ALIGNMENT: (Check all that apply)									
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
High Quality Infrastructure		Economic Resilience		Quality of Life		Effective Leadership		Level of Service	

**RELEVANT LEGISLATION:**

Provincial (cite)- N/A

Council Bylaw/Policy (cite)- Intermunicipal Collaboration Framework – Fire Sub Agreements 2020-2024

**BACKGROUND/PROPOSAL:**

5-year Fire Agreements were negotiated with partner municipalities of Acme, Carbon, Linden, Trochu and Three Hills on operating funding and capital purchases in 2020-2024. The agreements detail which capital apparatus are to be replaced by which municipality and when the replacements are due. Bush Buggies were part of the capital schedule as you will see in more detail in the presentation attached.

As part of the negotiations, the specified Bush Buggies are to be replaced by Kneehill County as the grass fires largely occur within the County.

Our recommendation is largely based on risk assessment and historical call volumes and responses. Our area has seen drier conditions in recent years, coupled with windy conditions. These conditions create fuel for grass fires. Historical call volumes show a steady number of grass fires, even with fire bans in place every spring, and most of the summers in recent years.

Carbon Bush Buggy – replacement was to be in 2023, we are asking for this to be considered in 2025.

Three Hills Bush Buggy – replacement in 2024, we are asking for this to be considered in 2025.

**DISCUSSION/OPTIONS/BENEFITS/DISADVANTAGES/OTHER CONSIDERATIONS:**

Our current truck set ups are different as each department built their own trucks, some with donated chassis, and different multi-purposes to align with their specific department needs. Going forward, and as Kneehill County replaces these trucks, we would standardize these units, regardless of the Type.



**Option 1: Type 7 Bush Buggy, Sustain Plus - Cost \$320,000**

## Benefits

1. Trucks are light weight units built on 3/4 T and 1 T chassis
2. This sustains our current service level by bringing all units up to a baseline standard.

## Limitations

1. Pump is only capable of 38 litres per minute (10 gallons per minute). Need 2 pumps in new builds.
2. Does not have capacity to pump in larger diameter hose due to pressure of pump.
3. Low ground clearance in current designs, this would change in new builds.
4. Lighter gross vehicle weight limits water needed and will need to fill more frequently on scene.
5. Limited storage due to weight and water carried.
6. Will require trucks to be built in pieces and then combined, by a qualified fire equipment company, working with our fire staff on this project.

**Option 2: Type 6 Bush Buggy, Increase Level of Service - Cost \$390,000**

## Benefits

1. 2 pumps – Same as Type 5 & 7
2. Tank capacity is triple that of a Type 7
3. Weight - Trucks are built for higher weight capacity, increasing the volume of water that can be transported. Recommend a 550 or 5500 chassis.
4. Will be set up to use larger diameter hose (38 mm Forestry hose).
5. Towing capability for future expansion if needed (required for Carbon due to terrain).
6. Better storage design and options. Weight capacity of the truck allows for this over a Type 7.
7. Option of front monitor for pump and roll capability – Will offer thermal protection to vehicle not available in Type 7

## Limitations

1. Water capacity may still be low for what is needed on scene but will have more capacity than Type 7.

**Option 3: Type 5 Bush Buggy, Exceed Level of Service - Cost \$470,000**

## Benefits

1. Same Pump set up as Type 6
2. Tank capacity is triple that of a Type 6 (from 560 to 1510 litres)
3. Trucks are built for higher gross weight capacity, increasing the volume of water that can be transported.
4. Towing capability for future expansion if needed.
5. Front mounted monitor to expand pump and roll capability.
6. Option for a rapid-fire attack apparatus for structure and wildland purpose. Type 6 and 7 do not have water capacity to make this possible.

## Limitations

1. Cost is higher
2. Weight of truck



**FINANCIAL & STAFFING IMPLICATIONS:**

Should Council choose Type 7 Bush Buggies, we will see a staffing impact during the building of these trucks as parts of the trucks will be built by different companies and brought together for builds.

Should Council choose Type 6 or Type 5 Bush Buggies, these will be ordered and pre-built directly from a fire apparatus manufacturer.

The cost of vehicles has increased significantly in recent years post-pandemic. The four engines we purchased in 2019/2020 were a total price of \$2,100,000. Those four trucks in today's market are nearing 4 million. We are cognizant of the price of these units, and the request is to balance the risk with the cost.

We have been funding these replacements through our capital replacement plan since 2020, as per the Fire Services Agreements, however at a replacement cost of \$100,000-150,000.

**RECOMMENDED ENGAGEMENT:**

Directive Decision (Information Sharing, One-Way Communication)

Tools:	Inter-Municipal Agreement	Other:	Fire
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**ATTACHMENTS:**

Bush Buggy presentation.

**COUNCIL OPTIONS:**

1. To approve Type 7 Bush Buggies for Carbon and Three Hills at a cost of \$320,000 each in the 2025 Budget.
2. To approve Type 6 Bush Buggies for Carbon and Three Hills at a cost of \$390,000 each in the 2025 Budget.
3. To approve Type 7 Bush Buggies for Carbon and Three Hills at a cost of \$470,000 each in the 2025 Budget.

**RECOMMENDED MOTION:**

That Council approve Type 6 Bush Buggies for Carbon and Three Hills at a cost of \$390,000 each in the 2025 Budget, with funds to come from the Capital Equipment Reserve.

**FOLLOW-UP ACTIONS:**

Adjust the Capital Equipment Plan to reflect the updated costing of the vehicles.

Update Capital Projects for 2025 Budget review, to include the Bush Buggies.

**APPROVAL(S):**

Mike Haugen, Chief Administrative Officer

Approved-

