



VOLUNTEER FIRE  
BRIGADES VICTORIA



**Appendix**  
**CFA Information Sheets –**  
**2023/24**

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### Appendix – CFA Information Sheets

All information sheets are also available to download from the CFA website

<https://www.members.cfa.vic.gov.au/programs/vesep>

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# Tanker Costs – VESEP 2023/24



Pricing - *Indicative @ April 2023*

Funding Source	Ultra Light Tanker	Light Tanker Crew Cab	Medium Tanker Addition to Fleet	Medium Tanker Replacement Tanker
Brigade	\$24,167	\$31,667	\$151,667	\$61,000
Grant Contribution	\$128,333	\$ 223,333	\$303,333	\$394,000
<b>Total</b>	<b>\$152,500</b>	<b>\$ 255,000</b>	<b>\$455,000</b>	<b>\$455,000</b>

Cost escalation to point of build in 2023/24 allow up to 10% increase.  
Options available on some appliances at Brigade cost

## Specifications

Detailed information regarding these appliances is available via Members on line:-  
<https://www.members.cfa.vic.gov.au/programs/vesep>

## Grant Funding Formulas

### *Ultra Light Tanker*

### *Light Tanker*

### *Medium Tanker (Replacements)*

#### **Cab Chassis**

- \$2 VESEP to \$1 Brigade

#### **Body**

- Funded by grant contribution

### *Medium Tanker (Additions to Fleet only)*

#### **Body & Cab Chassis**

- \$2 VESEP to \$1 Brigade



### Overview

The Ultra-Light Tanker delivers increased water, enhanced fire suppression capability and ergonomic features. This vehicle is licensed to carry 2 people including the driver. The vehicle has a manual transmission and does not require an endorsed licence to drive. The body and cab chassis conform to CFA operational safety standards. These appliances are not designed to have personnel operating from the tray area. The ULT's primary role for wildfire is to perform first attack on spot sized / remote / difficult-to-access types of fires where these fires are safe to approach. It is also designed to perform support for back operations, mopping up and patrolling duties.

### Cab Chassis – Toyota LandCruiser 70 Series Workmate 4x4

- 4.5L V8 turbo charged diesel engine c/w 5 speed manual transmission
- Upgraded 3.95 tonne GVM cab chassis with aftermarket wide alloy wheels, all-terrain tyres and 100 Litre fuel tank.
- Aluminium bull bar
- Air-conditioning, reversing camera, reversing alarm
- Map light, 2 x fire blankets, 2 x drink bottle holders,
- CFA map book holder, siren and emergency light controller, portable radio charger and CFA radio speakers.
- **Optional 3,500 kg towbar (at Brigade cost).**

### Body Features

- Full aluminium construction, water-cooled diesel engine pump (500 l/min @ 500 Kpa) and rear pump control panel
- Full LED lighting including emergency lights, locker/pump panel lighting and work lights
- 550 litre (nominal) water tank capacity, live hose reel with 30m x Ø19mm light weight hose and Dial-A-Jet branch, 1 x Ø65mm delivery, 1 x 20-230 lpm selectable flow nozzle, 1 x air-aspirating foam nozzle, Class A Dosatron foam system (or equivalent), 5.5m permanently connected suction hose.
- Radios (CFA and UHF), emergency response lights and sirens
- Vehicle livery package

### Lockering/tools and equipment

- 4 x aluminium lockers above tray
- Chainsaw & ancillary equipment, 2 x rake hoes, shovel, 2 x drip torches, tool box, emergency Class "A" foam kit, first aid kit, collapsible knapsack, service hydrant, 4.5kg AB dry chemical extinguisher, Hazmat guidebook, esky.



### Indicative Costs

Indicative prices as at March 2023 (excludes GST)  
 Cost escalation to point of build in 2023/24 up to 10% increase

Cab Chassis Costs Funding By Brigade & VESEP (excluding optional tow bar)	\$72,500
<b>Funding Break up</b>	
Brigade Contribution	\$24,167
Grant Contribution	\$128,333
<b>Total Project Costs</b>	<b>\$152,500</b>

### Option (Brigade Cost)

Tow bar	\$1,100
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	<b>BRIGADE OWNED VEHICLE BUILD-UP</b> <b>Ultra-Light Tanker</b> <b>(VESEP 2023/24)</b>
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## 1. CAB CHASSIS

**Cab Chassis and associated fitments/equipment – including modifications to conform to CFA’s operational safety standards**

DESCRIPTION
1.1 <b>Toyota LandCruiser 70 Series Workmate</b> (or equivalent) cab chassis of 4WD (4x4) configuration and a two (2) person single cabin with 5 Star ANCAP safety rating
1.2 Cab chassis powered by a common rail direct injection turbo charged 4.5 litre V8 diesel engine with air to air intercooler. (Maximum Power: 151kW @ 3,400 RPM. Maximum Torque: 430Nm @ 1,200-3,200 RPM) compliant with ADR 80/03 (Euro 5) Emission Standards
1.3 Gross vehicle mass rating (GVM) 3,950kg ( <b>uprated by Multi Drive</b> )
1.4 Front Axle capacity rating 1,540kg ( <b>uprated by Multi Drive</b> )
1.5 Rear Axle capacity rating 2,420kg ( <b>uprated by Multi Drive</b> )
1.6 Wheelbase 3,180mm
1.7 Turning circle 14.4m kerb-to-kerb
1.8 Manual transmission with five (5) forward gears and one (1) reverse gear (with dual range transfer case)
1.9 Automatic locking front hubs
1.10 Ventilated disc service brakes fitted with ABS, Brake Assist, Vehicle Stability Control, Hill Start Assist Control, Electronic Brake Force Distribution and Active Traction Control
1.11 Five (5) 16" x 7" alloy rims (non-standard) fitted with all-terrain tyres (including spare wheel)
1.12 Fuel tank capacity 100 litres (non-standard)
1.13 Cabin interior including engine immobilizer, cruise control, idle-up control, tilt and telescopic steering column, power steering, fully integrated air-conditioning, driver and passenger SRS airbags, curtain shield and driver’s knee airbags, emergency locking retractor seatbelts
1.14 Front seating incorporating: <ul style="list-style-type: none"> <li>• Standard bucket style driver’s seat suitable for off-road operation</li> <li>• Standard bucket style passenger seat</li> </ul>
1.15 Air cleaner snorkel fitted to the engine air intake and air cleaner fitted with a flameproof air filter element (non-standard)
1.16 12V electrical system c/w 130 ampere alternator
1.17 Polished aluminium bull bar
1.18 3,500kg rated towbar, c/w towball and wiring ( <b>OPTIONAL</b> )
1.19 Bonnet protector
1.20 Two (2) headlight protectors
1.21 Intercooler bonnet guard
1.22 Steering arm protector
1.23 Engine turbo air intake heat shield
1.24 Two (2) front wheel fender flares
1.25 Two (2) rubber floor mats
1.26 Vehicle’s exhaust discharges to rear of vehicle on nearside
1.27 Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical
1.28 Compliance to Australian Design Rules (ADR’s), relevant standards, regulations and Codes of Practice

## 2. **FIRE PUMP & PLUMBING**

### Fire Pump Set and Associated Equipment

DESCRIPTION	
2.1	<b>GAAM Mk70 / Kubota Z482</b> (or equivalent) single-stage centrifugal fire pump close coupled to a water-cooled diesel engine, with a minimum closed pump pressure of 900 kPa and a nominal flow rate of 500 litres/min. at 500 kPa – sufficient for two (2) 38mm lines with a 3 metre suction lift
2.2	Pump priming performed by a hand-operated diaphragm pump
2.3	Pump plumbing arrangement (All plumbing manufactured from stainless steel) <ul style="list-style-type: none"> <li>• Delivery manifold consisting of one (1) 65mm Storz coupling outlet</li> <li>• <b>“Tank Fill Line Draughting”</b> plumbing originating from the delivery manifold</li> <li>• Suction Manifold consisting of a separate permanently connected 5.5m x 64mm flexible suction hose with 75mm Storz couplings and suction strainer, and a 64mm water tank inlet</li> <li>• Separate 38mm water <b>“Tank Fill”</b> line fitted with a 38mm external lug coupling</li> <li>• Pump cooling (bleed) line including in-line strainer and check valve</li> </ul>
2.4	Pump engine fitted with 12V starter motor, 12V <b>“Energise to Stop”</b> solenoid and controls (powered from cab chassis 12V battery)
2.5	Pump controls and instrument panel mounted at the rear of the vehicle
2.6	Pump engine fuel system supplied from the cab chassis diesel fuel tank via a separate 12V fuel pump, header tank and fuel filter
2.7	Pump engine exhaust system discharges to rear of vehicle on nearside
2.8	Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical

## 3. **BODYWORK**

### Bodywork Build-up Arrangement

DESCRIPTION	
3.1	Aluminium tray frame
3.2	Front of the tray frame fitted with an aluminium light mounting frame (headboard)
3.3	Rear of the tray frame
3.4	Two (2) aluminium stowage lockers (NS1 & NS2, including stowage brackets and listed stowage equipment) located above tray on the nearside front of the body
3.5	Two (2) aluminium stowage locker (OS1 & OS2, including stowage brackets and listed stowage equipment) located above tray on the offside front of the body
3.6	One (1) aluminum stowage locker (Suction Hose locker, including stowage brackets and listed stowage equipment) located below tray on the offside rear of the body
3.7	One (1) 550 litre nominal capacity fabricated aluminium water tank complete with one (1) sight level gauge, centrally located on the tray frame
3.10	One (1) live hose reel c/w 30m x 19mm lightweight <b>Neidner</b> hose and 1 x <b>Dial-A-Jet</b> nozzle
3.11	Live hose reel fitted with a <b>Dosatron</b> Foam System c/w <b>“Off/Water/Foam”</b> 3-way selector valve
3.12	Rear wheels fitted with aluminium mudguards
3.13	CFA radio c/w handheld control head and ignition relay
3.14	CFA portable radio charger (supplied with a CFA portable radio, if vehicle is additional to fleet)
3.15	External rear speaker for CFA radio (mounted on front light mounting frame)
3.16	<b>GME XRS-370C</b> UHF CB radio
3.17	Reversing camera c/w in-dash display
3.18	Reversing buzzer

DESCRIPTION
3.19 <b>Hazard Systems CS202</b> Hand-Held Siren/Light Controller (or equivalent) with control pad mounted on cabin dash and 100W speaker mounted on bull bar
3.20 Flashing headlights (alternate flashing)
3.21 Four (4) red and blue LED hazard lights (2 at front and 2 at rear of appliance)
3.22 One (1) red and blue LED mini light bar (mounted on front light mounting frame)
3.23 Two (2) LED scene lights (mounted on front light mounting frame)
3.24 One (1) Pump Bay LED scene light
3.25 One (1) Rear LED scene light
3.26 Two (2) LED combination rear tail/stop/indicator/reversing lamps (on rear bumper bar)
3.27 Two (2) LED reversing lights angled at 45° (c/w separate switch)
3.28 LED locker lights
3.29 LED flexible arm map light in cabin
3.30 CFA reflective Red/Yellow chequer striping, reflective yellow striping at rear and outline profile of body and cabin, CFA logos, " <b>FIRE</b> ", " <b>Emergency 000</b> " and " <b>Brigade Name</b> " decals and " <b>Aerial ID</b> " number
3.31 Cabin engraved nameplates and decals
3.32 Weighbridge certificate of completed appliance ( <u>typical</u> )
3.33 Registration
3.34 Operating instructions
3.35 Stowage supplied as per Section 4
3.36 Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical
3.37 Compliance to Australian Design Rules (ADR's), relevant standards, regulations and Codes of Practice

#### 4. STOWAGE

CFA-approved Stowage equipment supplied as follows:

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
<b>Cabin Stowage</b>		
2 x 600ml drink bottles		✓
CFA Map book(s)		✓
2 x Crew		✓
1 x CFA Portable Radio (either supplied by CFA after delivery if vehicle is additional to fleet, or supplied by Brigade after delivery if a replacement vehicle)	✓	✓
2 x All-weather rubber floor mats	✓	
1 x Cab Chassis Jack, Jack handle, Spare Wheel Winch Handle and Tools	✓	
1 x Cab Chassis Operating Manual	✓	
1 x Pump Operating Manual	✓	
1 x CFA Vehicle & Pump Log Book	✓	
1 x CFA Radio Operating Manual	✓	
1 x Tanker Operating and Spare Parts Manual	✓	
1 x <b>Dosatron</b> Foam System Operating Manual	✓	
2 x Crew protection blankets – 1.8m x 2m - Red ( <b>CFA Part No. BLANKET</b> )	✓	
1 x " <b>SAA/ANZ HB 76:2010 Dangerous Goods – Initial Emergency Response Guide</b> " book	✓	
<b>Front Nearside (PPE) Locker - (NS1)</b>		<b>15kg max. capacity</b>
2 x Crew turn out bags		✓

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
<b>Rear Nearside (Hose) Locker - (NS2)</b>		
1 x 15 metre x 64mm <b>Duraline</b> delivery hose with 65mm Storz couplings (CFA Part No. <b>HDURALINE64CST15M</b> )	✓	
2 x 30 metre x 38mm synthetic delivery hoses with 38mm external lug couplings (CFA Part No. <b>HOSETW38CP30M</b> )	✓	
2 x 30 metre x 25mm synthetic delivery hoses with 38mm external lug couplings (CFA Part No. <b>HOSETW25CP30M</b> )	✓	
1 x 10 metre x 38mm <b>Duraline</b> delivery hose with 38mm external lug couplings	✓	
1 x 65mm Storz to 64mm x 3TPI female loose nut adaptor	✓	
1 x 65mm Storz to 64mm x 5TPI female loose nut adaptor	✓	
1 x 65mm Storz to 64mm x 3TPI male adaptor	✓	
1 x 65mm Storz to 75mm Storz adaptor	✓	
1 x <b>TFT DQ-ECF-BD Quadrafog</b> 20-230 litres/min. 500kPa selectable flow nozzle with <b>TFT D75DP-BD</b> ball valve, blue bale arm, blue pistol grip and 38mm external lug coupling	✓	
1 x <b>TFT AYLND-NF</b> long handle forestry gated Wye outlet c/w 3 x 38mm external lug couplings	✓	
1 x <b>Scotty 4080</b> pistol grip bale shut-off fitted with <b>Scotty 4020</b> air aspirating foam nozzle and 38mm external lug coupling	✓	
2 x <b>“OneKey”</b> spanners (CFA Part No. <b>SSONEKEY</b> )	✓	
<b>Front Offside (Welfare) Locker - (OS1)</b>		
1 x Drink cooler (“Esky”)	✓	
600ml drink bottles (quantity to suit drink cooler)		✓
1 x CFA First Aid Kit (CFA Part No. <b>F2CFA</b> )	✓	
<b>Rear Offside (Chainsaw) Locker - (OS2)</b>		
1 x <b>Stihl MS311 FarmBoss</b> chainsaw c/w 45-50cm bar and drip tray	✓	
1 x Chainsaw helmet (CFA Part No. <b>HELMCS</b> )	✓	
1 x Earmuffs (pair) (CFA Part No. <b>HELMCSEMUFF</b> )	✓	
1 x Visor (CFA Part No. <b>HELMCSVISOR</b> )	✓	
1 x Chainsaw chaps - Medium (100cm) (CFA Part No. <b>CHAPSCSM</b> )	✓	
1 x <b>Stihl 3/8”</b> chainsaw chain sharpening kit (to suit the <b>Stihl MS311</b> chainsaw)	✓	
1 x <b>Scepter 03615</b> combination chainsaw fuel (6 litre) and chain / bar oil (2.25 litre) canister c/w (CFA Part No. <b>FUELSTROKE50</b> ) and (CFA Part No. <b>FUELCHAIN</b> ) identification tags	✓	
1 x 5 litre fire lighter / drip torch metal fuel container c/w identification tag	✓	
1 x small tool bag c/w basic tool assortment	✓	
1 x Plastic funnel (to suit chainsaw & drip torch)	✓	
1 x <b>Firelogistics Backcare Boss 40-001-2603-0192</b> collapsible knapsack	✓	
1 x Short handle bolt cutters	✓	
1 x Emergency “A” Class foam kit	✓	
1 x Suction hose float c/w chain and “D” shackle	✓	
1 x <b>Angus STRBASK75 (Hoenig)</b> stainless steel wire mesh basket strainer	✓	
1 x 10 metre x 12mm synthetic rope	✓	
1 x 4.5kg ABE dry chemical fire extinguisher	✓	
<b>Rear Offside Under-Tray (Suction Hose) Locker</b>		
1 x 5.5 metre x 65mm (pre-connected) flexible suction hose c/w 75mm Storz couplings & 1 x 250mm long stainless-steel suction strainer c/w 75mm Storz coupling	✓	
<b>Tray Stowage</b>		
1 x CFA-approved aluminum long barrel service hydrant / standpipe c/w 65mm Storz couplings and 1 x blank cap with chain (CFA Part No. <b>HYDALTWLST</b> )	✓	
1 x Standpipe key holder c/w 1 x <b>“OneKey”</b> spanner (CFA Part No. <b>SSONEKEY</b> )	✓	
2 x 4 liter <b>Firebug</b> fixed wand fire lighters / drip torches	✓	

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
1 x 30 metre x 19mm lightweight <b>Neidner</b> (or equivalent) delivery hose c/w 38mm external lug coupling and 1 x <b>SCOTTY "DIAL-A-JET"</b> rotary nozzle c/w 38mm external lug coupling (on live hose reel)	✓	
1 x 65mm Storz to 38mm external lug adaptor ( <b>CFA Part No. ST6538ULC</b> )	✓	
1 x Live hose reel rewind handle	✓	
<b>Below-Tray Stowage</b>		
2 x Rake hoes ( <b>CFA Part No. RAKEHOEM</b> )	✓	
1 x 20 litre <b>Phoscheck WD881</b> Class 'A' foam drum ( <b>CFA Part No. FOAMAC20L</b> )	✓	
2 x Wheel chocks	✓	
1 x Removable tongue c/w towball for towbar	✓	
1 x Spare wheel and tyre	✓	
<b>Between Cabin and Tray Stowage</b>		
1 x Long handle shovel	✓	
1 x Axe	✓	
1 x Pulaski	✓	
<b>Water Tank</b>		
1 x Removable strainer (in overhead water tank filler)	✓	

**Note:** Additional stowage items are not approved

CFA specifications are general in nature and are subject to change without notice during tender and manufacturing

**Optional Extras  
Fully Funded by Brigade**

<b>Description</b>	<b>Estimated Brigade Cost exc GST per unit</b>	<b>Please (✓) if required</b>
3,500kg rated towbar, c/w towbar and wiring	\$1,100	
<b>Total Brigade Cost</b>	<b>\$</b>	

Signed by CFA Fire Brigade

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Date: / /

Summary Specification Prepared By:  
CFA Fleet and Protective EquipmentIssue 9  
March 2023

## Overview

The crew cab light tanker has a nominal 2,000 litre tank which will include a new body and a new diesel powered pump. The body is mounted on an Isuzu NPS 75-155 4 x 4 crew cab chassis. The body and cab chassis conform to CFA operational safety standards.

## Cab Chassis

Isuzu NPS 75-155 cab chassis of 4WD (4x4) crew cab configuration and (uprated) 8.0T GVM, powered by a turbocharged diesel engine with nominal maximum power output: 114 kW @ 2,600 RPM and nominal maximum torque output: 419 Nm @ 1,600 – 2,600 RPM.

## Body

The body is fitted with a fabricated aluminium tray frame and roll-over protection frame. The specifications include a 2,000 litre nominal fabricated polypropylene water tank with baffles for surge protection, an electric start water-cooled Kubota D902 diesel powered GAAM Mk150 pump capable of delivering 450 lpm @ 700 kPa. The body has a roll-over protection bar, crew protection system including electrically activated crew protection sprays, cabin mounted radiant heat shielding curtains, a low level water warning alert system, dual pump controls plus pump start facility in cabin, permanently coupled suction hose, dead hose reel, drink cooler, double width stowage locker (nearside) and slide-out locker (offside).

The body can have several optional fitments at Brigade cost. The options as listed: Live hose reel (in lieu of dead hose reel), Class “A” ‘Quenchmaster’ foam system. The tanker is supplied fully stowed with the exception of drinking water and CFA map books.

## Visual Example



## Indicative Cost

Indicative price is at March 2023 (excludes GST)

Cost escalation to point of build in 2023/24 allow up to 10% increase

Cab Chassis Costs Funding By Brigade & VESEP	\$95,000
<b>Funding Break up</b>	
Brigade Contribution	\$31,667
Total Grant Contribution	\$223,333
<b>Total Project Costs</b>	<b>\$255,000</b>

## Options (Brigade Cost)

Live hose reel (in lieu of dead reel)	\$1,850
Quenchmaster Class A Foam System	\$6,000



**BRIGADE OWNED VEHICLE BUILD-UP**  
**Light Tanker Crew Cab**  
**(VESEP 2023/24)**

## 1. CAB CHASSIS

**Cab Chassis and associated fitments/equipment – including modifications to conform to CFA’s operational safety standards**

DESCRIPTION	
1.1	<b>MY21 Isuzu NPS 75-155 4x4 Crew</b> (or equivalent) cab chassis incorporating a forward control five (5) person crew cabin
1.2	Cab chassis powered by a direct injection turbo charged diesel engine. (Maximum Power: DIN-Net – 114 kW @ 2,600 rpm. Maximum Torque: DIN-Net – 419 Nm @ 1,600-2,600 rpm) compliant with ADR 80/03 (Euro 5) Emission standards
1.3	Manufacturer’s allowable G.V.M. 8,000kg ( <b>Upated</b> )
1.4	Front Axle capacity rating 3,100kg
1.5	Rear Axle capacity rating 6,000kg
1.6	Wheelbase 3,395mm
1.7	Turning circle 14 metres, kerb-to-kerb
1.8	Manual transmission with five (5) forward gears & one (1) reverse gear (with dual range transfer case), <u>or</u> Optional Automated Manual Transmission (AMT)
1.9	Limited slip differential fitted to the rear axle
1.10	Vacuum/hydraulic service brakes
1.11	Exhaust brake fitted with automatic disengagement whilst the vehicle is in “neutral”
1.12	Drum parking brake on transmission output shaft
1.13	Tyres – Steel-belted tubeless traction radial off road pattern
1.14	Fuel tank capacity 140 litres
1.15	Cabin Interior including manufacturer’s standard fully integrated air-conditioning, driver and front outboard passenger air bags, electric windows and central locking with remote keyless entry and immobiliser
1.16	Seating incorporating: <ul style="list-style-type: none"> <li>• Driver’s adjustable spring suspension seat suitable for off-road operation (non-standard)</li> <li>• Front passenger bench seat (with centre seat replaced by document stowage console)</li> <li>• Rear passenger bench seat fitted with three (3) lap-sash seat belts (non-standard)</li> </ul>
1.17	Heated and powered exterior main mirrors and independently adjustable convex “spot” mirrors
1.18	24V electrical system c/w 90 ampere alternator.
1.19	Polished aluminum bull bar fitted with centrally mounted tow pin
1.20	Two (2) <b>Hella</b> fog lights fitted in bull bar
1.21	Approved metal case <b>Oblan</b> or <b>Donaldson</b> pre-cleaner fitted to the air intake tube
1.22	Vehicle’s exhaust discharges horizontally to offside of vehicle
1.23	Steel encircling loops fitted around each driveshaft
1.24	All brake and fuel lines constructed from approved fire-resistant material
1.25	50 mm wide “Yellow” step rings fitted to front wheels
1.26	Metal exterior door handles and surrounds ( <i>non-standard</i> )
1.27	Crew cabin fitted with “B” Post stiffener ( <i>non-standard</i> )
1.28	Crew cabin fitted with electro-hydraulic cab tilt ( <i>non-standard</i> )
1.29	Red-painted cabin
1.30	Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical
1.31	Compliance to Australian Design Rules (ADR’s), relevant standards, regulations and Codes of Practice

## 2. FIRE PUMP & PLUMBING

### Fire Pump Set and Associated Equipment

DESCRIPTION	
2.1	<b>GAAM Mk 150 / Kubota D902</b> (or equivalent) single-stage centrifugal fire pump close coupled to a water-cooled diesel engine with a minimum closed pump pressure of 1,150 kPa and a nominal flow rate of 450 litres/min. at 700 kPa – sufficient for two (2) 38mm lines or one (1) 64mm line with a 3-metre suction lift
2.2	Pump priming performed by a hand-operated diaphragm pump
2.3	Pump plumbing arrangement (All plumbing manufactured from stainless steel) <ul style="list-style-type: none"> <li>• Delivery manifold consisting of two (2) 38mm external lug coupling outlets and one (1) 65mm Storz outlet</li> <li>• <b>“Tank Fill Line Draughting”</b> plumbing originating from the delivery manifold</li> <li>• Front delivery plumbing consisting of nearside and offside under-tray 38mm external lug coupling outlets and three (3) 38mm external lug coupling outlets above-tray at front of body</li> <li>• Suction Manifold consisting of a separate permanently connected 8 metre x 75mm flexible suction hose, 65mm Storz <b>“Hydrant Boost”</b> inlet and 64mm water tank inlet</li> <li>• Separate 50mm water <b>“Tank Fill”</b> line fitted with a 65mm Storz coupling located on nearside of body</li> <li>• Front bull bar mounted tyre sprays plumbing originating from the nearside under-tray delivery plumbing c/w in-cabin mounted operating valve</li> <li>• Pump cooling (bleed) line including in-line strainer and check valve</li> </ul>
2.4	Pump engine fitted with 24V starter motor and controls (powered from cab chassis 24V battery)
2.5	Pump controls and instrument panel mounted on the nearside rear of the vehicle with duplicated controls mounted off the roll-over protection bar and pump start controls included in the cabin control panel
2.6	Pump engine fuel system integrated with the cab chassis diesel fuel system
2.7	Pump engine exhaust system discharges vertically at offside rear of body
2.8	Pump engine fitted with <b>Oblan C-021ES</b> combination air filter/pre-cleaner c/w flameproof air filter element
2.9	Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical

## 3. BODYWORK

### Bodywork Build-up Arrangement

DESCRIPTION	
3.1	Aluminum tray frame
3.2	Tray frame fitted with aluminum chequer plate floor panels in the crew and walkway areas
3.3	Front of the tray frame fitted with an aluminum Roll-Over Protection Bar
3.4	Each side of the body fitted with a crew access step, access door and continuous handrailing
3.5	Crew Protection features, including: <ul style="list-style-type: none"> <li>• “Drop-down” radiant heat protection curtains fitted to cabin windscreen and side windows</li> <li>• Electrically actuated crew spray protection system sprays fitted to cabin, tyres, pump and rear pump control panel</li> <li>• Cabin rear window replaced with aluminum panel</li> <li>• Sides and rear of the body enclosed with aluminum heat shielding panels</li> <li>• Aluminum infill panels between the cabin and body</li> </ul>

DESCRIPTION	
3.6	Digital crew communication intercom system between cabin and deck area c/w flashing Magenta <b>"Call Cabin"</b> LED light in deck area
3.7	Top of the aluminum heat shielding panels on the offside and nearside front of the body fitted with safety yellow handrailing
3.8	Aluminum double-width stowage locker NS1 (including stowage brackets and listed stowage equipment) located on the nearside of the body
3.9	Aluminum blanket locker (including listed stowage items) located on top of NS1 accessible from the deck on the nearside of the body
3.10	Aluminum slide-out locker OS1 (including stowage brackets and listed stowage equipment) located on the offside of the body
3.11	Supply and fitment of stowage brackets and listed stowage equipment for the tray area
3.12	Rear view Camera and forward-facing deck camera (integrated with <b>Isuzu Digital Audio-Visual Entertainment Unit</b> in-cabin display)
3.13	2,000 litre (nominal) fabricated HDPE water tank complete with baffles and three (3) sight level gauges, centrally located on the tray frame
3.14	One (1) dead hose reel (Alternative: See Options – Item No. 5.1 for Live Hose Reel In lieu of Dead Hose Reel)
3.15	Rear bumper bar complete with two (2) recovery eyes and combination LED rear tail lamps
3.16	Rear wheels fitted with aluminum mudguards
3.17	A two (2) battery roll-out battery carrier, complete with radiant heat shielding (on nearside)
3.18	<b>Intellitec Battery Guard</b> battery management system with Reset button located on cabin dash
3.19	Two (2) 24V jump-start/battery charger plugs (one located each side of body)
3.20	Two (2) red/blue alternating LED mini light bars on cabin roof (blanked off to rear)
3.21	Four (4) red/blue alternating LED hazard lights (2 at front and 2 at rear of appliance)
3.22	Alternate flashing headlight system
3.23	Siren System
3.24	Low water level indication system
3.25	CFA mobile radio system c/w ignition relay and rear speaker
3.26	<b>GME XRS-370C</b> UHF CB radio
3.27	CFA portable radio charger (and CFA portable radio, if vehicle is additional to fleet)
3.28	Three (3) flexible arm-type LED map reading lights in cabin (one on dash and two in rear)
3.29	Stowage lockers illuminated with internal LED lighting
3.30	Tray access steps and under-tray plumbing illuminated with LED lighting
3.31	Crew area LED lighting installed in the walkway and pump bay areas of the body
3.32	Two (2) handheld LED spotlights with flexible cords mounted in the crew area with provision for mounting off either the left, or right-hand side of the roll-over protection bar and additional stowage brackets in crew area
3.33	Alley lights fitted to sides of cabin
3.34	One (1) CFA-approved 560mm (minimum length) LED driving light bar (on bullbar)
3.35	Two (2) small Green slow burn LED lights (mounted above vehicle front and rear registration plates, visible to "Road Safety" cameras)
3.36	CFA reflective Red/Yellow chequer striping, reflective yellow striping at rear and outline profile of body and cabin, CFA logos, <b>"FIRE"</b> , <b>"Emergency 000"</b> and <b>"Brigade Name"</b> decals and <b>"Aerial ID"</b> number
3.37	Engraved nameplates and decals
3.38	Stowage equipment supplied as per Section 4
3.39	Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical
3.40	Compliance to Australian Design Rules (ADR's), relevant standards, regulations and Codes of Practice

#### 4. **STOWAGE**

CFA-approved Stowage equipment is supplied as follows:

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
<b>Nearside Locker (NS1) (Double width)</b>		
1 x CFA First Aid Kit <i>(CFA Part No. F2CFA)</i>	✓	
1 x Emergency "A" Class foam kit <i>(If foam system optioned)</i>	✓	
1 x Small Town Shut-off branch c/w 38mm external lug coupling	✓	
1 x <i>Quell TPB15-38mm</i> brass fog nozzle c/w 38mm external lug coupling	✓	
1 x 64mm x 3TPI female loose nut – 75mm Storz adaptor	✓	
1 x 65mm Storz – 75mm Storz adaptor	✓	
1 x 65mm Storz – 64mm x 3TPI male adaptor	✓	
1 x 65mm Storz to 38mm external lug adaptor <i>(CFA Part No. ST6538ULC)</i>	✓	
2 x 65mm Storz spare bollards	✓	
2 x 64mm spare bollards	✓	
1 x 4.5kg ABE Dry Chemical Fire Extinguisher	✓	
2 x <i>"OneKey"</i> spanners <i>(CFA Part No. SSONEKEY)</i>	✓	
1 x Combined live/dead hose reel handle	✓	
6 x 38mm external lug coupling washers	✓	
4 x 64mm x 3TPI female-coupling washers	✓	
2 x 65mm Storz coupling (delivery) washers	✓	
3 x 38mm spare bollards	✓	
1 x 10 metre x 64mm <i>Duraline</i> delivery hose c/w 65mm Storz couplings	✓	
1 x 15 metre x 38mm <i>Duraline</i> delivery hose c/w 38mm external lug couplings	✓	
3 x 30 metre x 38mm <i>Duraline</i> delivery hoses c/w 38mm external lug couplings <i>(If dead hose reel fitted)</i>	✓	
2 x 30 metre x 38mm <i>Duraline</i> delivery hoses c/w 38mm external lug couplings <i>(If live hose reel optioned in lieu of Dead Hose Reel)</i>	✓	
1 x <i>Stihl MS311 FarmBoss</i> chainsaw c/w 50cm bar and drip tray	✓	
1 x Chainsaw helmet <i>(CFA Part No. HELMCS)</i>	✓	
1 x Earmuffs (pair) <i>(CFA Part No. HELMCSEMUFF)</i>	✓	
1 x Visor <i>(CFA Part No. HELMCSVISOR)</i>	✓	
1 x Chainsaw chaps - Medium (100cm) <i>(CFA Part No. CHAPSCSM)</i>	✓	
1 x <i>Stihl</i> 3/8" chainsaw chain sharpening kit (to suit the <i>Stihl MS311</i> chainsaw)	✓	
1 x <i>Scepter 03615</i> combination chainsaw fuel (6 litre) and chain / bar oil (2.25 litre) canister c/w <i>(CFA Part No. FUELSTROKE50)</i> and <i>(CFA Part No. FUELCHAIN)</i> identification tags	✓	
1 x 5 litre fire lighter / drip torch metal fuel container c/w identification tag	✓	
1 x Plastic fuel funnel (to suit chainsaw and drip torch)	✓	
1 x CFA Hazardous Tree Kit	✓	
<b>Blanket Locker (On top of NS1)</b>		
3 x Crew protection blankets – 1.8m x 2m - Red <i>(CFA Part No. BLANKET)</i>	✓	
<b>Offside Slide-Out Locker (OS1)</b>		
1 x Vehicle jack	✓	
1 x Jack handle	✓	
1 x Wheel nut spanner	✓	
1 x Spare wheel winch handle	✓	
1 x Toolbox c/w basic tool assortment	✓	
1 x Warning triangle set	✓	
1 x 20 metre x 12mm synthetic rope	✓	

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
1 x Axe	✓	
1 x <b>Angus Fire Foamlite B65</b> Medium expansion Class "A" foam branch c/w 38mm external lug coupling <b>(If foam system optioned)</b>	✓	
1 x <b>Phoenix R200</b> Low expansion Class "A" foam branch c/w 38mm external lug coupling <b>(If foam system optioned)</b>	✓	
<b>On and Around the Crew Work Platform Area</b>		
2 x Handheld LED spotlight c/w flexible cord and plug (located on roll-over protection bar at front of body, transferrable between nearside and offside of deck)	✓	
1 x 4 litre <b>"Firebug"</b> fixed wand firelighter	✓	
1 x Tank strainer (in water tank fill point)	✓	
2 x 2.5 metre x 38mm <b>Duraline</b> delivery hoses c/w 38mm external lug couplings and 2 x <b>Quell TPB15-38mm</b> brass fog nozzles c/w 38mm external lug couplings	✓	
1 x 2.5 metre x 38mm <b>Duraline</b> delivery hose c/w 38mm external lug couplings, 1 x Small Town shut-off branch c/w 38mm external lug coupling & 12mm nozzle	✓	
1 x 20 metre x 25mm RED <b>Ortac</b> delivery hose c/w 38mm external lug couplings and 1 x <b>Quell TPB15-38mm</b> brass fog nozzle c/w 38mm external lug coupling (on live hose reel) <b>(If live hose reel optioned in lieu of Dead Hose Reel)</b>	✓	
<b>Below Tray</b>		
1 x 20 litre <b>Phoscheck WD881</b> Class 'A' foam drum <b>(CFA Part No. FOAMAC20L)</b> (on slide-out rack located offside) <b>(If foam system optioned)</b>	✓	
2 x Rake hoes <b>(CFA Part No. RAKEHOEM)</b>	✓	
1 x CFA-approved aluminum long barrel service hydrant / standpipe c/w 65mm Storz couplings and 1 x blank cap with chain <b>(CFA Part No. HYDALTWLST)</b> (located in nearside rear under-tray locker)	✓	
1 x 25 litre drink cooler (located in nearside under-tray slide-out carrier)	✓	
600ml drink bottles (quantity to suit drink cooler)		✓
2 x Wheel chocks (one located on mudguard each side)		
<b>Suction Hose Locker</b>		
1 x 8 metre x 75mm (pre-connected) flexible suction hose c/w 75mm Storz couplings & 300mm long stainless-steel suction strainer with 75mm Storz coupling	✓	
1 x Suction hose float c/w chain and "D" shackle	✓	
1 x <b>Angus STRBASK75 (Hoenig)</b> stainless steel wire mesh basket strainer	✓	
<b>In the Cabin</b>		
5 x Crew protection blankets – 1.8m x 2m - Red <b>(CFA Part No. BLANKET)</b>	✓	
1 x Vehicle Operating manual	✓	
1 x Cab Chassis Owner's Manual	✓	
1 x CFA Vehicle & Pump log book	✓	
1 x CFA portable radio (either supplied by CFA after delivery if additional to fleet, or supplied by Brigade after delivery if a replacement appliance)	✓	✓
1 x CFA Map book		✓
5 x Wildfire helmets		✓

**Note: Additional stowage items are not approved**

CFA specifications are general in nature and are subject to change without notice during tender and manufacturing

**Optional Extras**  
**Fully Funded by Brigade**

Description	Estimated Brigade Cost exc GST per unit	Please (✓) if required
Live Hose Reel and delivery plumbing with 20 metres of 25mm Red <b>"ORTAC"</b> delivery hose (c/w 38mm external lug couplings) and one (1) <b>Quell TPB15-38mm</b> brass fog nozzle (c/w 38mm external lug coupling) tray mounted on the left-hand side rear of the vehicle <i>(in lieu of Item No. 3.13 – Dead Hose Reel)</i>	\$1,850	
Class "A" Foam - <b>GAAM Quenchmaster</b> Foam System (including one (1) 20 litre freshwater tank, one (1) foam drum rack, one (1) 20 litre drum of <b>Phoscheck WD881</b> Class "A" foam, one (1) foam kit and two (2) <b>Angus</b> foam expansion branches)	\$6,000	
<b>Total Brigade Cost</b>	<b>\$</b>	

Signed by CFA Fire Brigade

\_\_\_\_\_  
 (Brigade Representative)

Date:    /    /

Summary Specification Prepared By:  
 CFA Fleet & Protective Equipment

Issue 9  
 March 2023

## Overview

Each Medium Tanker project includes a cab chassis and body with a diesel powered pump. The body is mounted on a Hino GT 500 1528 or equivalent.

The body and cab chassis are to conform to CFA operational standards. The vehicle is licensed to carry five personnel including the driver and is designed primarily for a wildfire role.

## Cab Chassis

Hino GT 500 1528 cab chassis of 4WD (4x4) turbo charged diesel engine with six speed (5 forward & 1 reverse) automatic transmission and two speed transfer case (4x4). Incorporates five (5) person crew – two in the front and 3 in rear. All seats fitted with lap/sash seatbelts. The cab is fitted with an internal “B” pillar intermediate support bar. Radiant heat protection curtains are fitted to all cabin windows and the vehicle is fitted with a spray protection system with switch activation from cabin and crew tray area.

## Body

- Polyethylene water tank, 2,500 litres capacity including 650 litres of vehicle/crew spray protection water.
- Fabricated steel/aluminium tray frame and external roll over protection bar.
- Class A Foam around-the pump proportioning system c/w 2 x 20 litre carboys.
- 2 staged fire fighting pump with air-cooled diesel engine. Nominal output 900l/min @ 700kpa
- Water-cooled diesel driven Ultra High Pressure System (UHPS) (nom. 25 l/min @100 bar) connected to 1 x Ø12mm 60m electric rewind live hose reel mounted above tray OS rear and fitted with aspirating fog gun nozzle.
- 1 x electric bull bar mounted monitor fitted with adjustable nozzle (100-450 l/min) c/w in cabin joystick controller.
- Rear deliveries – 2 x Ø65mm Storz.
- 1 x electric rewind live hose reel c/w 20m of Ø25mm hose mounted above tray NS rear.
- Aluminium fabricated above tray lockering/stowage including multi function ladder and chainsaw
- Dead hose reel near side rear under tray
- Electric priming pump
- Tray mounted crew protection drop down awning
- **BA Bracket (optional item at Brigade cost)**



## Indicative Costs

Indicative price is at March 2023 (excludes GST)

Cost escalation to point of build in 2023/24 allow up to 10% increase

Additional Tanker	Funding	Replacement Tanker	Funding
Brigade Contribution	\$151,667	Brigade Contribution	\$61,000
Total Grant Contribution	\$303,333	Total Grant Contribution	\$394,000
<b>Total Project Cost</b>	<b>\$455,000</b>	<b>Total Project Cost</b>	<b>\$455,000</b>

## Options (Brigade Cost)

BA Bracket \$3,100

## MEDIUM TANKER – 2023/24

### OVERALL SPECIFICATIONS

□ GVM:	14.5T	□ Overall Length:	7.35 m
□ Crew:	5	□ Overall Height:	3.05 m
□ Operating Weight:	11.8T ( <i>with 5 crew</i> )	□ Turning Circle:	17.0 m ( <i>nom.</i> )
		□ Exit Angle:	24°

### CREW CAB CHASSIS (4x4)

- **Hino GT Series 500 1528** (or equivalent) 4x4 Crew Cab Chassis
- Engine – 206 kW (280 HP) turbo-charged, intercooled, 6-cylinder diesel engine
- Six (6) speed (5 forward & 1 reverse) automatic transmission
- Seating for five (5) crew – 2 in the front & 3 in the rear (*all seats fitted with lap/sash seatbelts*)
- 200L fuel tank
- 11R22.5" **Bridgestone M857** tubeless tyres
- Air conditioning, electric windows, fog lights, rear view camera
- Air over hydraulic braking system (*incl. ABS*)
- Aluminum bull bar & electric cab tilt
- Cabin internal support bar (*B post stiffener*)
- CFA approved radiant heat protection curtains fitted to all cabin windows
- Vehicle/crew spray protection system (with 2 position switch activation – cabin and ROPS)

### FIREFIGHTING BODY and PLUMBING

- Welded polyethylene water tank – 2,500 litres capacity (including 650 litres for a vehicle/crew spray protection system) c/w baffles for surge protection.
- Fabricated steel/aluminum tray frame & external roll over protection bar
- 2 Staged **GAAM Mk 300D** pump/22kW **Hatz 2L41C** diesel engine (or equivalent) (**900 l/min @ 700 kPa**)
- Electric priming pump
- Water cooled diesel driven Ultra High-Pressure System (UHPS) (**nom. 25l/min @ 100 bar**) connected to 1 x Ø12mm 60m electric rewind hose reel fitted with aspirating fog gun nozzle.  
**Note:** UHPS nearside rear mounted on a slide out frame (*for maintenance access*)  
UHPS fitted with stand alone inductive foam system
- Major plumbing including:
  - 1 x electric bull bar mounted monitor fitted with adjustable nozzle (*nom. min. 100-450 l/min capacity*) c/w remote "in cabin" joystick controller
  - Rear deliveries - 2 x Ø65mm (*Storz*)
  - NS/OS forward below tray deliveries (*per side*) - 1 x Ø38mm (*external lug*)
  - 1 x electric rewind live hose reel c/w 20m Ø25mm hose (*mounted above tray NS rear*)
  - Rear below tray hydrant boost – 1 x Ø65mm (*Storz*)
  - Hard suction c/w permanently connected 9m of Ø75mm "wire whipped" suction hose fitted in OS rear undertray locker (*OS deployed*)
  - NS undertray Ø65mm tank fill (*Storz*)
- Vehicle control system including:
  - CANBUS multiplexing
  - Cabin forward console – pump & emergency response system control
  - Deck console – pump control
  - Rear console – pump controls and tank/pump indication
- ROPS mounted "Crew Protection Drop Down Awning" with CFA approved radiant heat protection curtain
- **Quenchmaster CF700CFA** (or equivalent) inductive Class "A" foam system c/w slide-out drum rack for 2 x 20 litre Carboys (*NS undertray*) feeding all deliveries & monitors  
**Note:** UHPS Class "A" foam capable via dedicated inductive system
- Aluminium fabricated above tray lockering/stowage (*comparable to 2.4C*) including:
  - **NS1** - optional BA – gas strut top hinged
  - **NS2** - hose, adaptors, chainsaw – gas strut top hinged
  - **OS1** - salvage gear
  - **NS Cabin/Body** – PPE/Miscellaneous gear
  - Capacity to stow 4 x Ø64mm & 5 x Ø38mm hose (*incl. dead hose reel*)
- **Little Giant 10103 MT22** Multi-function ladder (*min. 5.8m extended length*) OS mounted between the cabin and body on a slide out frame
- Dead hose reel. (*NS rear undertray*)
- 20L freshwater tank
- NS undertray welfare locker c/w 25L removable esky

**Optional Extras**  
**Fully Funded by Brigade**

<b>Description</b>	<b>Estimated Brigade Cost exc GST per unit</b>	<b>Please (✓) if required</b>
BA Pantograph Bracket (manually operated) plus stowage bracketry for 2 x spare cylinders and BA control board. <i>Fitted to nearside</i>	\$3,100	
<b>Total Brigade Cost</b>	<b>\$</b>	

Signed by CFA Fire Brigade

\_\_\_\_\_ Date:    /    /

Summary Specification Prepared By:  
CFA Fleet and Protective Equipment

Issue 12  
March 2023

CFA specifications are general in nature and are subject to change without notice during tender and manufacturing.



### Definition & Requirements of a Field Command Vehicle

#### Overview

- A FCV is a four wheel drive off road vehicle of an appropriate size to operate in the bush.
- The FCV delivers enhanced incident management capability and ergonomic features. This vehicle is licensed to carry 5 people including the driver.
- The vehicle has an automatic transmission and does not require an endorsed license to drive.
- The FCV is used in a range of incident management roles including; incident control in a level 1 fire, Operations Officer, Sector Commander, Strike Team Leader, Ground Observer or Staging Area activities for level 2 or 3 incidents.

#### Cab Chassis – Ford Ranger XL Five Star ANCAP Rating

- 2.0L Bi-Turbo Charged Diesel Engine
- Automatic Transmission
- Dual batteries, and reversing alarm
- Bulbar (Poly), snorkel and tinted windows
- Bluetooth
- AUX/USB/iPod integration
- Cruise control with steering wheel mounted buttons
- eLocking Rear Differential
- Dynamic Stability Control (DSC)
- Emergency Brake Assist
- Rubber dish style floor mats
- Heavy Duty canvas seat covers
- Towbar with flat pin wiring plug
- All-terrain tyres
- Two CFA Tait radios
- LED Driving Lights (RF Comms Safe Compatible)
- Reverse Camera
- GVM 3230kg
- Pre-Collision Assist (AEB with Pedestrian Detection)
- Lane Keeping Aid with Driver Alert System
- Automatic High Beam
- Vinyl Floor Covering
- Manual Single Zone Climate Control



Image- XLT Model Ford Ranger



#### Option – Ford Ranger XLT 4x4 Utility (White) - Standard Differences are:

- Colour touch screen with Satellite Navigation and Apple Car Play & Android Auto
- Carpet Floor Covering
- GVM- 3280 kg
- Alloy wheels, Side Steps, Adaptive Cruise, Tyre Pressure Monitoring
- LED Headlights, LED Daytime running lights, fog lights, Rain sensing wipers

*CFA specifications are general in nature and are subject to change without notice during tender and manufacturing*

### Emergency Warning Systems & Livery

(These items are funded separately)

- Light Bar Multi Colour 360 Degree Red/Blue Alternating.
- Grill lights Multi Colour Red/Blue Alternating
- Siren System 100w with siren/lights integrated controller
- Standard CFA Livery
- Flashing headlights

### Body

- Purpose built service body with lift up doors. Transferable between cab chassis
- Full aluminium construction
- Roll out under tray rear drawer
- Rubber matting
- Tie down points
- 12v to 240v Invertor
- Under tray lockers
- LED internal locker lights main compartment
- LED work lights
- 4.5kg AB dry chemical extinguisher
- One Tait Portable Radio Charger- rear cabin
- Six USB charging points (4 inside cabin, 2 inside body)
- Central locking of all above tray locker doors wired to Ford remote
- Adjustable shelves
- Bushman's Stand-up Fridge – 65Ltr
- VASS Certification
- One UHF radio (GME- 80 Chanel)
- Rear seat map light
- Whiteboards
- Available Payload- approx. 180kg  
(incl. 5 crew- nominal)



### Body Layout





### Other Information

- These vehicles are fully project managed by CFA Headquarters and delivered to the local District Office when completed. This vehicle is a standard design therefore additional items or design changes will not be accommodated.
- There will be no requirement for Brigades/Groups to obtain specific quotes for any components.
- GVM upgrades will not be considered for any FCV vehicle.
- Light bar, siren, livery and radios are funded separately and do not require a brigade contribution.
- All additional items to be stowed will require District approval and not cause the GVM of the FCV to be exceeded

### Grant Formula

Equipment grants are funded by VESEP & Brigade, \$2 VESEP to \$1 Brigade with a maximum VESEP contribution of \$150,000.

#### Indicative Costs - ex GST

##### XL Cab Chassis

Brigade Contribution	\$29,666
Grant Contribution	\$59,334
<b>Total Project Costs</b>	<b>\$89,000</b>

#### Indicative Costs - ex GST

##### XLT Cab Chassis

Brigade Contribution	\$32,666
Grant Contribution	\$65,334
<b>Total Project Costs</b>	<b>\$98,000</b>

Indicative prices as of April 2023 (excludes GST)  
Cost escalation to point of build in 2023/24 up to 10% increase

### Overview

The BA Support concept vehicle has been developed to support in field BA operations and training activities through the provision of BA cylinders, BA facemask cleaning and basic rehab for firefighters.

### Cab Chassis – Ford Ranger XL 4x4 Utility (Extra Cab)

- 4x4, 3230kg GVM
- Seating for a crew of 2
- Turbocharged Diesel Engine (Bi Turbo 2.0Ltr)
- Vehicle can be driven on a standard driver license

### Body Construction

- Purpose built painted body – Transferable between cab chassis
- Full aluminium construction
- Lift-up doors
- Dual batteries
- Reversing alarm and camera
- Driving lights- 7” LED
- Spartan Smart Bar (Poly) Bullbar
- Snorkel
- Towbar with flat pin wiring plug
- Central locking to all above tray lockers
- Adjustable shelves
- Full LED locker and scene lighting
- Standard CFA Livery
- 12 V accessories plugs

- Stowage includes 4.5 kg Dry Chemical Extinguisher
- **BA Cylinder not included in stowage**

- Equipment includes:
  - 1x CFA Radio
  - Portable Radio Charger
  - 70 L Poly-Under Body Water Tanker
  - 12 V Water Pump (7 L/m)
  - 2 Foldable Trestle Tables
  - 2 BA Staging Area Mats
  - 4 Cooler Chairs
  - Whiteboards
  - 1x Defibrillator
  - 1x First Aid Kit



NS Locker



OS Locker



Rear

### Indicative Costs

#### Funding Break up

Brigade Contribution	\$31,000
Grant Contribution	\$62,000
<b>Total Project Costs</b>	<b>\$93,000</b>



Indicative prices as at April 2023 (excludes GST)  
 Cost escalation to point of build in 2023/24 up to 10% increase

## Overview

The Big Fill incorporates an aluminium body and a new water-cooled diesel engine powered pump on a new Toyota LandCruiser cab chassis. These vehicles will be licensed to carry 2 people including the driver. The body and cab chassis conform to CFA operational safety standards.

## Cab Chassis – Toyota LandCruiser 70 Series Workmate 4x4 (typical)

- 4.5L V8 turbo charged diesel engine c/w 5 speed manual transmission
- Upgraded 3.95 tonne GVM cab chassis with aftermarket wide alloy wheels, all-terrain tyres and 100 Litre fuel tank.
- Aluminium bull bar
- Air-conditioning, reversing camera, reversing alarm
- CFA map book holder, siren and emergency light controller, portable radio charger and CFA radio speakers.
- **Optional 3,500 kg towbar (at Brigade cost).**

## Big Fill Body (typical)

- Aluminium tray and lockers
- Decals, emergency lights, sirens, radios, siren lights, spot light, reversing beeper, reversing camera and green “Quickfill” lights
- Water-cooled diesel engine powered centrifugal pump (1,800 l/min @ 700 kPa)
- Pelican remote area lighting system c/w tripod and in-vehicle charger
- 4 x Ø2.4m clear “Helifix” suction hoses, suction rammer, Hoisting wire basket strainer, float and rope
- 2 x 100mm x 65mm Torz spanners
- 4 x 30m x 164mm delivery hoses
- 2 x 15m x Ø24m delivery hoses
- 2 x 30m x Ø38mm delivery hoses
- Aluminium service hydrant
- Selection of hose adaptors
- 2 x witches hats
- 2 x rake hoes
- 2 x portable green flashing lights
- Tow strap
- Shovel and axe
- First aid kit
- 2 x Woollen fire blankets
- Drinking water cooler
- Tool box (c/w pliers, adjustable spanner, screwdrivers)
- 4.5kg ABE dry chemical fire extinguisher & bracket
- Provision for limited Brigade stowage items. Maximum 50kg (excepting crews)
- Operating Manuals



## Indicative Cost

Indicative price is at March 2023 (excludes GST)

Cost escalation to point of build in 2023/24 allow up to 10% increase

Cab Chassis Costs Funding By Brigade & VESEP \$72,500

### Funding Break up

Brigade Contribution	\$24,167
Grant Contribution	\$145,833
<b>Total Project Costs</b>	<b>\$170,000</b>

## Options (Brigade Cost)

Towbar	\$1,100
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	<b>BRIGADE OWNED VEHICLE BUILD-UP</b> <b>Big Fill</b> <b>(VESEP 2023/24)</b>
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## 1. CAB CHASSIS (VESEP/Brigade Cost)

**Cab Chassis and associated fitments/equipment – including modifications to conform to CFA’s operational safety standards**

DESCRIPTION
1.1 <b>Toyota LandCruiser 70 Series Workmate</b> Cab Chassis of 4WD (4x4) configuration and a two (2) person single cabin with 5 Star ANCAP safety rating
1.2 Cab chassis powered by a common rail direct injection turbo charged 4.5 litre V8 diesel engine with air to air intercooler. (Maximum Power: 151kW @ 3,400 RPM. Maximum Torque: 430Nm @ 1,200-3,200 RPM) compliant with ADR 80/03 (Euro 5) Emission Standards
1.3 Manufacturer’s allowable G.V.M. 3,950kg ( <b>Upated</b> )
1.4 Front Axle capacity rating 1,540kg ( <b>Upated</b> )
1.5 Rear Axle capacity rating 2,420kg ( <b>Upated</b> )
1.6 Wheelbase 3,180mm
1.7 Turning circle 14.4m kerb-to-kerb
1.8 Manual transmission with five (5) forward gears and one (1) reverse gear (with dual range transfer case)
1.9 Automatic locking front hubs
1.10 Ventilated disc service brakes fitted with ABS, Brake Assist, Vehicle Stability Control, Hill Start Assist Control, Electronic Brake Force Distribution and Active Traction Control
1.11 Five (5) 16” x 7” alloy rims fitted with all-terrain tyres (including spare wheel)
1.12 Fuel tank capacity 100 litres (non-standard)
1.13 Cabin interior including engine immobilizer, idle-up control, tilt and telescopic steering column, power steering, fully integrated air-conditioning, driver and passenger SRS airbags, curtain shield and driver’s knee airbags, emergency locking retractor seatbelts
1.14 Front seating incorporating: <ul style="list-style-type: none"> <li>• Standard bucket style driver’s seat suitable for off-road operation</li> <li>• Standard bucket style passenger seat</li> </ul>
1.15 Air cleaner snorkel fitted to the engine air intake and air cleaner fitted with flameproof air filter element (non-standard)
1.16 12V electrical system c/w 130 ampere alternator
1.17 Polished aluminium bull bar
1.18 3,500kg rated towbar, c/w tow ball and wiring
1.19 Bonnet protector
1.20 Two (2) headlight protectors
1.21 Intercooler bonnet guard
1.22 Steering arm protector
1.23 Engine turbo air intake heat shield
1.24 Two (2) front wheel fender flares
1.25 Two (2) rubber floor mats
1.26 Vehicle’s exhaust discharges horizontally to rear of vehicle on nearside
1.27 Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical
1.28 Compliance to Australian Design Rules (ADR’s), relevant standards, regulations and Codes of Practice

## 2. **PUMP & PLUMBING** (VESEP Cost)

### Pump Set and Associated Equipment

<b>DESCRIPTION</b>	
2.1	<b>GAAM Mk500 / Isuzu 4LE2</b> water-cooled diesel engine powered single stage centrifugal water pump (Nominal flow rate: 1,900 litres/min. at 700kPa) mounted at offside rear of body
2.2	Pump priming performed by 12V electric priming pump
2.3	Pump plumbing arrangement (all plumbing manufactured from stainless steel) <ul style="list-style-type: none"> <li>• Delivery consisting of two (2) 65mm Storz ball valve-controlled outlets angled downwards at 30° above tray-level at rear</li> <li>• Suction consisting of a 100mm Storz inlet angled downwards at 15° above tray-level at rear</li> </ul>
2.4	Pump engine fitted with 12V starter motor and controls (powered from cab chassis 12V battery)
2.5	Pump controls and instrument panel mounted at rear offside of body
2.6	Pump engine fuel system including 12V pump and header tank integrated with the cab chassis diesel fuel system
2.7	Pump engine exhaust system discharges vertically at offside of body
2.8	Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical

### 3. **BODYWORK** (VESEP Cost)

#### Bodywork Build-up Arrangement

DESCRIPTION	
3.1	Aluminium tray frame
3.2	Front and rear of the tray frame fitted with aluminium light mounting frames
3.3	Offside of the tray fitted with an access step and handrailing (for pump maintenance only)
3.4	Two (2) white painted aluminium stowage lockers (NS1 & NS2) located above tray on the <u>nearside</u> of the body
3.5	One (1) white painted aluminium stowage locker (OS1) located above tray on the <u>offside front</u> of the body
3.6	One (1) chequer plate aluminium stowage locker located below tray on the <u>offside rear</u> of the body
3.7	One (1) chequer plate aluminium stowage locker located below tray on the <u>nearside rear</u> of the body
3.8	One (1) aluminium suction hose stowage locker located below tray at <u>rear</u> of the body
3.9	Rear wheels fitted with aluminium mudguards
3.10	CFA radio c/w hand held control head and ignition relay
3.11	External rear speaker for CFA radio (mounted on front light mounting frame)
3.12	CFA portable radio charger (and CFA portable radio, if vehicle is additional to fleet)
3.13	<b>Hazard Systems CS202</b> Hand-Held Siren/Light Controller (or equivalent) with control pad mounted on cabin dash and 100W speaker mounted on bull bar
3.14	Flashing headlights (alternate flashing)
3.15	Four (4) red and blue LED hazard lights (2 at front and 2 at rear of appliance)
3.16	Two (2) red and blue LED mini light bars (mounted on front light mounting frame)
3.17	Green (" <b>Quickfill</b> ") LED beacon (mounted on front light mounting frame between red and blue LED mini light bars)
3.18	Two (2) LED scene lights (mounted on front light mounting frame)
3.19	Rear LED scene light (mounted on rear light mounting frame)
3.20	LED pump bay light (mounted on rear light mounting frame)
3.21	High level LED brake light (mounted on rear light mounting frame)
3.22	Two (2) LED combination rear tail/stop/indicator/reversing lamps (on rear bumper bar)
3.23	Two (2) LED reversing lights angled at 45° (c/w separate switch)
3.24	LED under tray step light
3.25	LED locker lights
3.26	LED flexible arm map light on cabin dash
3.27	Reversing buzzer
3.28	Reversing camera c/w in-dash display
3.29	<b>Intellitec Battery Guard</b> battery management system with Reset switch on cabin dash
3.30	CFA reflective Red/Yellow chequer striping, reflective yellow striping at rear and outline profile of body and cabin, CFA logos, " <b>FIRE</b> ", " <b>Emergency 000</b> " and " <b>Brigade Name</b> " decals and " <b>Aerial ID</b> " number
3.31	Cabin engraved nameplates and decals
3.32	Weighbridge certificate of completed appliance ( <u>Typical</u> )
3.33	Registration
3.34	Operating instructions
3.35	Stowage supplied as per Section 4
3.36	Includes CFA Ergonomic Vehicle Design Guidelines (in its latest version) applied to equipment designs wherever practical
3.37	Compliance to Australian Design Rules (ADR's), relevant standards, regulations and Codes of Practice

#### 4. **STOWAGE** (VESEP / Brigade Cost)

CFA-approved Stowage equipment is supplied as follows:

Item	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
<b>Nearside Front Locker NS1 (Front)</b>		
1 x Remote Area Lighting System - YELLOW – <i>Pelican Cat. No. 9430</i>	✓	
1 x 12/24V Vehicle Charger - <i>Pelican Cat. No. 9436</i>	✓	
1 x Tripod - <i>Pelican Cat. No. 9430TP</i>	✓	
1 x GREEN LED flashing light - <i>Lightman VSC14000</i> with GREEN lens	✓	
1 x Roadside GREEN flashing light - <i>E-Flare 700-EF510(G)</i> with GREEN lens	✓	
<b>Nearside Front Locker NS1 (Rear)</b>		
2 x Delivery hose - <i>Duraline</i> - 64mm x 15 metre c/w 65mm Storz couplings ( <i>CFA Part No. HDURALINE64CST15M</i> )	✓	
2 x Delivery hose - <i>Duraline</i> - 64mm x 30 metre c/w 65mm Storz couplings	✓	
2 x Delivery hose - canvas – 64mm x 30 metre c/w 65mm Storz couplings	✓	
2 x Delivery hose - canvas - 38mm x 30 metre c/w 38mm external lug couplings	✓	
<b>Nearside Rear Locker NS2</b>		
2 x <i>Quell TPB15-38mm</i> brass fog nozzles c/w 38mm external lug couplings	✓	
2 x 65mm Storz to 38mm external lug adaptor ( <i>CFA Part No. ST6538ULC</i> )	✓	
1 x Adaptor – 65mm Storz - 64mm x 5TPI female loose nut	✓	
1 x Adaptor – 65mm Storz - 64mm x 3TPI female loose nut	✓	
2 x Adaptor – 65mm Storz - 64mm x 3TPI male	✓	
1 x Adaptor – 65mm Storz – 50mm female camlock	✓	
1 x Adaptor – 65mm Storz – 75mm female camlock	✓	
1 x Adaptor – 65mm Storz – 75mm male camlock	✓	
1 x Blank cap – 65mm Storz	✓	
1 x <i>Hoening</i> basket strainer	✓	
1 x Float (polystyrene or plastic) with long chain	✓	
1 x Rope (synthetic) – 10mm x 10m long	✓	
2 x <i>“OneKey”</i> spanners ( <i>CFA Part No. SSONEKEY</i> )	✓	
2 x Storz suction/delivery washer – 100mm	✓	
4 x Storz delivery washer – 65mm	✓	
4 x Rubber washer – 64mm	✓	
6 x Rubber washer – 38mm	✓	
1 x Tool kit (c/w assorted tools)	✓	
1 x Tow strap (4,000kg minimum) – 50mm x 6m long	✓	
<b>Offside Front Locker OS1</b>		
1 x CFA First Aid Kit ( <i>CFA Part No. F2CFA</i> )	✓	
1 x Axe	✓	
1 x Drink Cooler (e.g. <i>“Eskey”</i> 20-26 litre, or equivalent)	✓	
20 x Drinking water - 600ml bottle		✓
2 x Personal PPE		✓
2 x Crew protection blankets – 1.8m x 2m - Red ( <i>CFA Part No. BLANKET</i> )		✓
2 x Camp chair		✓
4 x Tent pole		✓
1 x Insect repellent		✓
2 x Ear plugs (packet of disposable plugs)		✓
4 x Goggles (spare pairs)		✓
4 x Leather gloves (spare pairs)		✓
1 x Rubberised gloves (spare pair)		✓
2 x Tarpaulin – 3m x 6m		✓

Item	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
4 x Tent rope		✓
4 x Tent peg		✓
<b>Rear Suction Hose Locker</b>		
3 x Suction hose - 100mm x 2.4m long CLEAR <b>Heliflex</b> c/w 100mm Storz swivel couplings	✓	
1 x Suction hose - 100mm x 2.1m long CLEAR <b>Heliflex</b> c/w 100mm Storz swivel couplings and 300mm long Suction Strainer fitted with 100 Storz coupling	✓	
<b>Tray</b>		
2 x Witches hat	✓	
1 x Fire extinguisher – 4.5kg Dry Chemical (AB)	✓	
2 x Rake hoes ( <b>CFA Part No. RAKEHOEM</b> )	✓	
<b>Undertray</b>		
2 x Wheel chock (one each side)	✓	
1 x Towbar gooseneck and tow ball	✓	
1 x Shovel – long handle (located nearside front of tray)	✓	
<b>Nearside Undertray Locker</b>		
1 x CFA-approved aluminium long barrel service hydrant / standpipe c/w 65mm Storz couplings and 1 x blank cap with chain ( <b>CFA Part No. HYDALTWLST</b> )	✓	
<b>Offside Undertray Locker</b>		
1 x Collector – 100mm Storz swivel coupling – 65mm Storz couplings (x2) c/w flap valves	✓	
1 x "Y" breach – 65mm Storz coupling – 65mm Storz couplings (x2) gated outlets	✓	
<b>In-Cabin</b>		
1 x CFA Radio Operating Manual	✓	
1 x CFA Vehicle and Pump log book	✓	
1 x Cab Chassis Operating Manual	✓	
1 x Cab Chassis Jack and Tools	✓	
1 x CFA Portable Radio (supplied by CFA after delivery – if appliance is additional to fleet, or, supplied by Brigade after delivery – if appliance is a replacement)	✓	✓
1 x Appliance Operating Manual	✓	
1 x Pump Operating Manual	✓	
2 x Crew (2 @ 100kg each)		✓
1 x Melways		✓
1 x Map book		✓
1 x Note pad and pens		✓
1 x Fuel card		✓
1 x Torch		✓

**Note:** Discretionary Brigade-supplied items (except crew, as shown) – 50kg maximum allowance

**Additional stowage items are not approved**

Prepared By:  
CFA Fleet & Protective Equipment  
Issue 16  
March 2023

Signed by CFA Fire Brigade

\_\_\_\_\_  
(Brigade Representative)

Date: / /

Approval by District Headquarters

\_\_\_\_\_  
(Assistant Chief Fire Officer)

Date: / /

### Overview

The Rehabilitation Unit supports the health and wellbeing of members at prolonged incidents or where members are working in hot or strenuous conditions. The body and cab chassis conforms with CFA operational safety standards. This vehicle can be driven on a standard car driving license.

### Cab Chassis – Isuzu NNR 45-150 (or equivalent)

- 4x2, 4.5 Tonne GVM c/w Automated Manual Transmission (AMT)
- Seating for a crew of 4
- 3,500 kg towbar
- Vehicle can be driven on a standard car driving license

### Body Construction

- Aluminium lock tube framing clad with white aluminium sheeting
- 2 x side roller shutters, 1 x rear lift up door
- 1 x manually operated pneumatic light mast with 4 LED lights
- Scene lighting, reverse camera
- Emergency response controls
- 100L non potable water tank
- CFA standard livery



- Storage for brigade supplied equipment (e.g. portable generators/tables/chairs/marquee/esky) estimated 620kg
  - Front through locker volume 3.1m<sup>3</sup> Nominal
  - Rear locker volume 2.2m<sup>3</sup> Nominal
- Brigade funded options available:
  - 3m manually operated awning (each side), Thule Omnistor 4900 or an equivalent.
  - Ventilated fuel locker, mounted OS undertray behind rear wheels



### Indicative Costs

Indicative prices as at March 2023 (excludes GST)  
 Cost escalation to point of build in 2023/24 up to 10% increase

#### Funding Break up

Brigade Contribution	\$44,167
Grant Contribution	\$88,333

**Total Project Costs** **\$132,500**

Option Awning (per side) – Additional Brigade Contribution	\$2,200
Option Fuel Locker – Additional Brigade Contribution	\$1,100



## REHABILITATION UNIT – 2023/24

### OVERALL SPECIFICATIONS

- |                     |                             |                   |                                |
|---------------------|-----------------------------|-------------------|--------------------------------|
| □ GVM:              | 4.5T                        | □ Overall Length: | 5.80 m                         |
| □ Crew:             | 4                           | □ Overall Height: | 2.60 m                         |
| □ Operating Weight: | 4.0T ( <i>with 4 crew</i> ) | □ Overall Width:  | 2.63 m ( <i>over mirrors</i> ) |
|                     |                             | □ Turning Circle: | 11.8 m ( <i>kerb to kerb</i> ) |

### CREW CAB CHASSIS (4x2)

- Isuzu NNR 45-150 4x2 Crew Cab Chassis (or equivalent)
- Engine – 110 kW (147HP), 4-cylinder diesel engine
- Six (6) speed Automated Manual Transmission
- Seating for four (4) crew – 2 in the front & 2 in the rear (*all seats fitted with lap/sash seatbelts*)
- 100L fuel tank
- 195/85 R16 tyres
- Air conditioning, electric windows, rear view camera
- Hydraulic Dual Circuit braking system (*incl. ABS, EBD, ESC and AEB*)

### MULTIPURPOSE BODY

- Vehicle control system including:
  - Cabin forward console – emergency response system control
- Plug in point for CFA radio in rear compartment
- 240V plug in for in station charging with automatic plug eject
- Aluminium fabricated lockering including:
  - **NS1** – roll up locker door, with shelving and tie down straps for gear
  - **OS1** - roll up locker door, with shelving and tie down straps for gear
  - **REAR** - top hinged lift up door with gas struts, with shelving and tie down straps for gear

### CFA SUPPLIED STOWAGE

- 100L freshwater tank
- 4.0m manual telescopic light mast with 4 LED lights fitted
- 1.0m x 0.5m whiteboard, including markers
- Fridge slide/s with fridge plug in and optional slide out table
- CFA approved livery (stickers and lights)

### STOWAGE – BRIGADE FUNDED (*space and tie down straps allocated*)

- Folding tables x 3
- Large Marquee x 2
- Slabs of water (24 x 600ml) x 8
- Fridge/s
- Rehab chairs x 10
- Generator x 1 (depending on size)
- First aid kit x 1
- Defib x 1
- Health monitoring x 1
- Space for large and small tubs



**Optional Extras  
Fully Funded by Brigade**

<b>Description</b>	<b>Estimated Brigade Cost exc GST per unit</b>	<b>Please (✓) if required</b>
3m Awning manually operated, Thule Omnistor 4900 or an equivalent – per unit cost <i>Fitment on Nearside and/or Offside</i>	\$2,200	
Nearside Fitment (✓) if required		
Offside Fitment (✓) if required		
Fuel Locker	\$1,100	
<b>Total Brigade Cost</b>	<b>\$</b>	

Signed by CFA Fire Brigade

\_\_\_\_\_ Date:    /    /

Summary Specification Prepared By:  
CFA Fleet and Protective Equipment

Issue 3  
March 2023

\* CFA specifications are general in nature and are subject to change without notice during tender and manufacturing



### Overview

The appliance is a multi-purpose vehicle licensed to carry five (5) crew, including the driver. The rear of the appliance can be configured to suit Brigade's specific requirements. Appliance to be stowed with equipment to secure and clean up after an incident. It is offered in three (3) versions:

- Version 1 – 4 x 4 short body (manual) – approx. 6.6m Long, 2.3m Wide, 2.8m High
- Version 2 – 4 x 2 short body (manual) – approx. 6.6m Long, 2.3m Wide, 2.7m High
- Version 3 – 4 x 2 long body (auto) – approx. 7.4m Long, 2.3m Wide, 2.5m High

### Cab Chassis

- Version 1 - Isuzu NPS 75-155 (or equivalent) 4x4 Crew Cab Chassis with 7.5T GVM
- Version 2 - Isuzu NPR 65-190 (or equivalent) 4x2 Crew Cab Chassis with 6.5T GVM
- Version 3 - Hino 921 (or equivalent) 4x2 Crew Auto Cab Chassis with 8.5T GVM

### Body

- Prefabricated aluminum framed body (SES specification)
- Stowage compartments can be configured to suit user requirements
- White painted cab and body
- Rear lift-up door with gas struts
- Roller access doors each side

### Items included:

- Cab and body painted white
- CFA livery (decals & striping)
- Emergency Lighting
- Scene and locker lighting
- Seating for 5 crew (including 3 x lap/sash seat belts in rear)
- Stowage console between driver and front passenger seats
- Nearside awning
- Minor brackets and straps for Brigade stowage items
- Installation of CFA supplied radio and portable radio charger
- Registration (brigade owned vehicle)

Version 1



Version 2



Version 3



### Options available at additional cost:

- Red painted cab and body
- Aluminum bullbar
- 240V reticulated power system
- Wheel arch lockers (x 2)
- Inbuilt 240V compressed air system (240V generator or 240V inverter system is required)
- Pneumatic light mast – 4m height, external mounting, 3 x standard LED lights, hand pump
- Pneumatic light mast – 4m height, external mounting, 3 x standard LED lights, electric pump
- Pneumatic light mast – 6m height, internal mounting, 4 x high powered LED lights, electric pump
- Pneumatic light mast – 6m height, internal mounting, 4 x high powered LED lights, robotic head, electric pump
- Version 2 - Upgrade to 7.5 tonne GVM (Isuzu NPR 75-190 4 x 2 Crew)
- Version 2 – Automated Manual Transmission (AMT)
- Version 1 – Automated Manual Transmission (AMT)
- Vertical exhaust
- High intensity scene lighting
- Customised shelving/bracketry

### Indicative Costs - ex GST

Indicative Costs as at March 2023 (excludes GST)

Cost escalation to point of build in 2023/24 up to 10% increase

Funding Break up	Version 1 4 x 4 Short Body Manual	Version 2 4 x 2 Short body Manual	Version 3 4 x 2 Long Body Auto
Brigade Contribution	\$81,667	\$78,333	\$81,667
VESEP Contribution	\$163,333	\$156,667	\$163,333
<b>Total Project Costs (excluding options)</b>	<b>\$245,000</b>	<b>\$235,000</b>	<b>\$245,000</b>

### Customised Internal Shelves/Bracketry – Subject to cost



**These specifications are indicative and are subject to change during tendering and manufacturing**

### Overview

The Field Hygiene Unit supports the health and wellbeing of members at prolonged incidents.

- Purpose built steel trailer with egress steps
- Option of one or two portable toilets
- Wash basin station
- Waste disposal bin
- Weight – Single 850kg / Double 1140kg
- Dimensions:
  - *Double toilet:* Length 5500mm, Width 2350mm, Height 2700mm
  - *Single toilet:* Length 5700mm, Width 1880mm, Height 2700mm



### Indicative Costs

#### Funding Break up

#### Single Toilet

Brigade Contribution \$ 5,000  
Grant Contribution \$10,000

**Total Project Costs \$15,000**

#### Double Toilet

Brigade Contribution \$ 9,500  
Grant Contribution \$19,000

**Total Project Costs \$28,500**

Indicative prices as at April 2023 (excludes GST)

Cost escalation to point of build in 2023/24 up to 10% increase

### Overview

The trailer pump has a tandem axle, equipped with a water-cooled diesel engine with a nominal pump output of 2,000 L/min @700 kPa. Primarily utilised for water fill points on the fire ground however can also be connected to a hydrant if necessary.

### Trailer

- Fabricated galvanized steel/aluminum chequer plate tray frame and drawbar
- Tandem axle c/w mechanical override, hydraulic operated, drum brakes
- Jockey wheel, lockable tow coupling and 7 pin electrical connection
- Retractable rear end stabilizers
- 15” Light Truck tyres fitted to Sunraysia rims including spare
- Aggregated Trailer Mass (ATM) : 1.6 Tonne

### Pump and Plumbing

- Water pump coupled to a 38kW water cooled diesel engine c/w noise suppression cowling
- 60L diesel fuel tank
- Electric priming pump
- 2 x Ø65mm Storz deliveries (near side)
- 9m Ø100mm pre connected suction hose fitted to the rear located in a dedicated locker behind tailgate

### Electrical

- 4m extendable hand operated pneumatic light mast c/w 4 x LED lights
- Green “water point” LED strobe (mounted on top of light mast)
- NS control panel incorporating pump controls, gauges, warning lights and light switching
- Single battery and pre connected 240v trickle charging system

### Stowage

- Red painted aluminum fabricated lockering c/w gas strut assisted “hinge up” doors and LED lockering

Nearside 1 locker	Offside 1 locker
Hose (4x65mm-15m, 2x65mm-30m, 1x38mm-15m)	3m x 3m CFA water point marquee
Miscellaneous adaptors	2 x folding chairs
	Miscellaneous tools and first aid kit
General Tray	
4.5kg ABE dry chemical extinguisher	Offside 2 Locker
10L diesel fuel container	2 Eskies
Shovel, aluminium hydrant, 2 x traffic cones, rake hoe	Personal Gear
Mussel c/w 100 mm Storz	
	Forward Wheel Arch Lockers x (2)
	Wheel chocks, jack and wheel brace
	Stabiliser pads
	Miscellaneous



### Indicative Cost

Indicative price is at March 2023 (excludes GST)

Cost escalation to point of build in 2023/24 allow up to 10% increase

Brigade Contribution	\$25,833
Total Grant Contribution	\$51,667
<b>Total Project Costs</b>	<b>\$77,500</b>

It is important to note that GST is not factored into the total project costs, therefore the GST exclusive amount should be used to calculate the Brigade and VESEP contribution

### Grant Formula

Equipment grants are funded by VESEP & Brigade, \$2 VESEP to \$1 Brigade with a maximum VESEP contribution of \$150,000

### Overview

The trailer pump has a single axle, equipped with a water-cooled diesel engine with a nominal pump output of 2,000 L/min @700 kPa. Primarily utilised for water fill points on the fire ground however can also be connected to a hydrant, if necessary.

### Trailer

- Fabricated galvanized steel/aluminum checker plate tray frame and drawbar
- Single axle c/w mechanical override, hydraulic operated, drum brakes
- Jockey wheel, lockable tow coupling and 7 pin flat electrical connection
- Retractable rear end stabilizers
- 15" Light Truck tyres fitted to Sunraysia rims including spare
- Aggregated Trailer Mass (ATM) : 1.2 tonne

### Pump and Plumbing

- Water pump coupled to a 38kW water cooled diesel engine c/w noise suppression cowling
- 60L diesel fuel tank
- Electric priming pump
- 2 x Ø65mm Storz deliveries (near side)
- 9m Ø100mm pre connected suction hose fitted to the rear located in a dedicated locker behind tailgate

### Electrical

- 4m extendable hand operated pneumatic light mast c/w 4 x LED lights
- Green "water point" LED strobe (mounted on top of light mast)
- NS control panel incorporating pump controls, gauges, warning lights and light switching
- Single battery and pre connected 240v trickle charging system

### Stowage

- Red painted aluminum fabricated lockering c/w gas strut assisted "hinge up" doors and LED lockering

Nearside 1 locker	Offside 1 locker
Hose (2xØ65mm-15m, 1xØ38mm-15m)	Esky
Miscellaneous adaptors	First aid kit
General Tray	Forward Wheel Arch Lockers x (2)
4.5kg ABE dry chemical extinguisher	Wheel chocks, jack and wheel brace
10L diesel fuel container	Stabiliser pads
Shovel, rakehoe, 2 x traffic cones	Miscellaneous
Mussel c/w Ø100 mm Storz	



### Indicative Cost

Indicative price is at March 2023 (excludes GST)

Cost escalation to point of build in 2023/24 allow up to 10% increase

Brigade Contribution	\$22,000
Total Grant Contribution	\$44,000
<b>Total Project Costs</b>	<b>\$66,000</b>

It is important to note that GST is not factored into the total project costs, therefore the GST exclusive amount should be used to calculate the Brigade and VESEP contribution

### Grant Formula

Equipment grants are funded by VESEP & Brigade, \$2 VESEP to \$1 Brigade with a maximum VESEP contribution of \$150,000.

## CFA Minimum Standards Requirements

### Overview

Trailers will be offered under VESEP in the following sizes-

- 7x5 Single Axle
- 8x5 Tandem Axle
- 10x6 Tandem Axle.

### Livery Standards

All trailers will include a minimum livery. CFA decals will be displayed in the following locations- left and right-hand sides and rear (three in total).

### Finish/ paint

All trailers will be finished with either paint, powder coat or galvanized.

### Color

If a trailer is not galvanized, the only approved colour is red.

### Compliance

All trailers will comply with the requirements of Vehicle Standards Bulletin (VSB) 1 Revision 6.

### Registration

Registration costs (initial and ongoing) of Brigade owned (VESEP funded) trailers will be at the cost of brigades.

### Lighting

All trailer lighting will be LED. Preference is for readily available and reputable brands. Two reverse lights will be included (1x near side and 1x offside).

### Braking Systems

Trailers above 750kg will require trailer braking. Hydraulic braking is preferred.

### Wiring

Trailer plug will be the 7 pin flat plug. However, each trailer is required to include an adaptor.

### Tyres

Minimum requirement will be 14inch light truck tyres with Ford stud pattern. Each trailer will have a spare tyre secured under the draw bar.

### Rope Rail

Each trailer will include a rope rail to enable securing of loads. Rope rail will be on all 4 sides.

### Jockey Wheel

All trailers will be fitted with a jockey wheel.

*CFA specifications are general in nature and are subject to change without notice during tender and manufacturing*

### Other Information

- Trailers application are for replacement of existing trailer only
- Applications for single or double axel trailers will be based on a 1 for 1 basis with evidence of disposal to be provided once new trailer is received.
- Copy of quote to be supplied with application.
- GST is not factored into the total project costs, therefore the ex-GST amount should be used for the application and to calculate the Brigade and VESEP contribution.

*Note: Additional referencing for trailers please refer to;  
Operations Bulletin 004-2020 Trailers Final 22.07.20,  
including Appx1 & Appx2*

### Grant Formula

Trailer grants are funded by VESEP & Brigade, \$2 VESEP to \$1 Brigade with a maximum VESEP contribution of \$150,000.



# VESEP 2023/24

## Personal Protective Clothing

### Chainsaw Operations



## Overview

CFA has introduced a new standard for Personal Protective Clothing whilst undertaking operational activities using a chainsaw. The new standard includes an outer layer of fire-resistant material (Proban) on the chaps and a new helmet specification (AS/NZS 1801 Type 3).

These items are available through the CFA State Logistics Centre

## Details

Product		Cost Exc GST
<p>Stihl Government &amp; Utility Proban covered chainsaw chaps high visibility orange</p> <p><i>SLC Product Codes</i></p> <p>CHAPSCS - Available in short, medium &amp; long lengths</p>		<p>\$259.10</p>
<p>Professional Safety Helmet (supplied with visor and ear muffs)</p> <ul style="list-style-type: none"> <li>• <i>Helmet includes CFA logo</i></li> </ul> <p><i>SLC Product Codes</i></p> <ul style="list-style-type: none"> <li>• HELMCS - Helmet (\$55.25)</li> <li>• HELMCSEMUFF - Ear Muffs (\$25.93)</li> <li>• HELMCSVISOR - Visor (\$40.90)</li> </ul>		<p>\$122.08</p>

## Indicative Cost

Example of Funding Breakup 1/3<sup>rd</sup> Brigade & 2/3<sup>rd</sup> VESEP

Brigade Contribution	\$ 127.06
Grant Contribution	\$ 254.12
<b>Total Project</b>	<b>\$ 381.18</b>

Pricing – Indicative @ March 2023  
Prices may change

### Overview

This trailer is designed to allow brigades to test a number of lengths of hose quickly and safely to the required standard. The hose testing trailer allows for the safe and efficient testing of multiple lengths of hose using an electric jacking pump. If a failure occurs the hose just “drops” rather than flying around in a dangerous manner.

### Body Construction

- Galvanised tray frame.
- Aluminium chequer plate construction with 3 lockers along the offside.
- Deck access handle
- Stainless steel plumbing.
- LED tail, tool box, work and flood lights.
- Grundfos 50ZH electric testing pump.
- 64mm – 3TPI storz couplings.
- 240 volt single phase operation.
- Mounted hose washer and custom hose winder.
- Hydraulic override brakes.
- Tests to Australian Standards up to 1400kpa.



### Indicative Costs

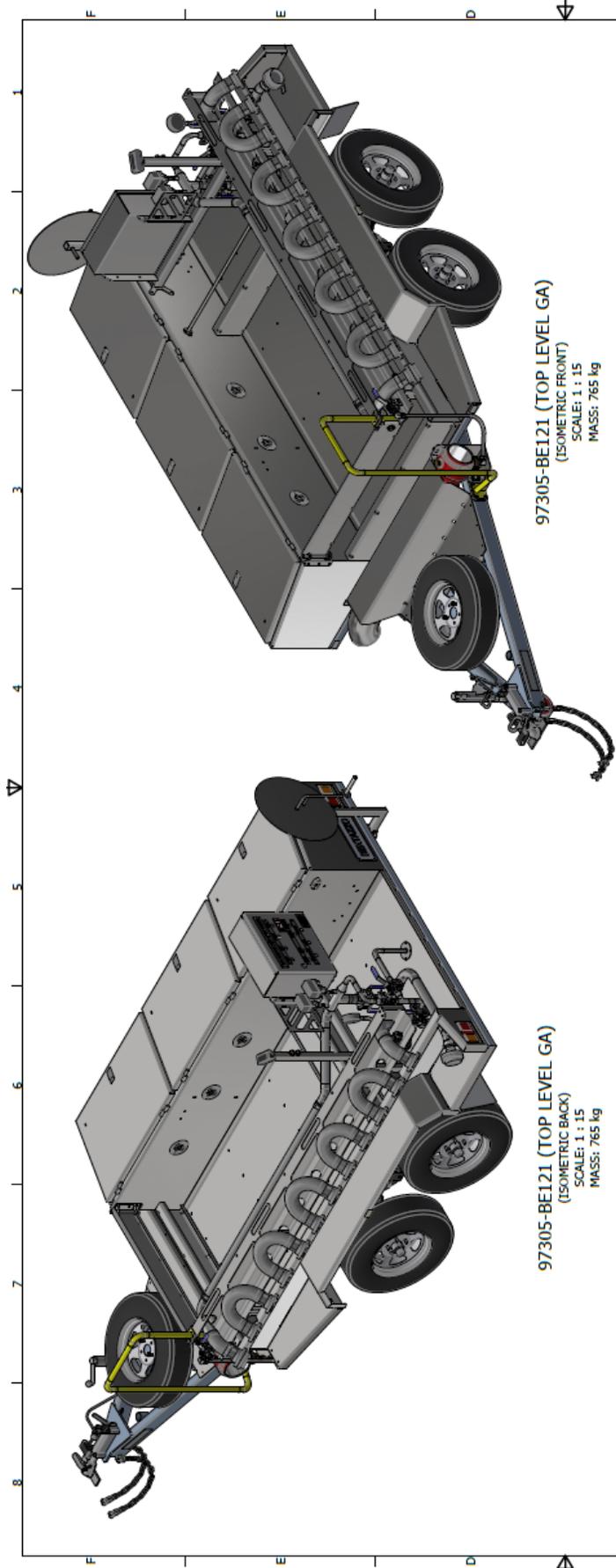
Indicative prices as at March 2023 (excludes GST)

Cost escalation to point of build in 2023/24 up to 10% increase

### Funding Break up

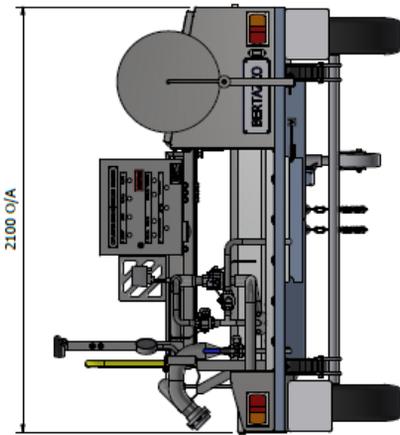
Brigade Contribution	\$17,318
Grant Contribution	\$34,637

<b>Total Project Cost</b>	<b>\$51,955</b>
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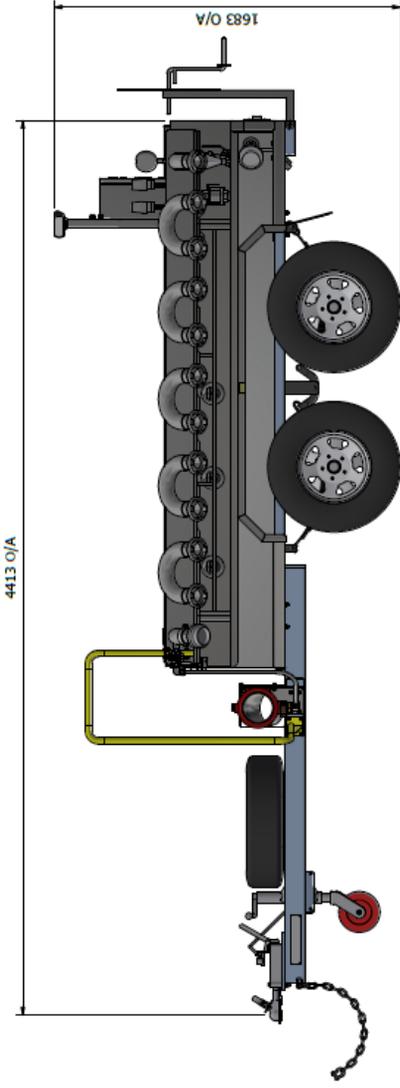


97305-BE121 (TOP LEVEL GA)  
(ISOMETRIC FRONT)  
SCALE: 1 : 15  
MASS: 765 kg

97305-BE121 (TOP LEVEL GA)  
(ISOMETRIC BACK)  
SCALE: 1 : 15  
MASS: 765 kg



2100 O/A



4413 O/A

v/o E891

 <p><b>BERTALLO</b> ENGINEERING &amp; DESIGN 175 BUNNACRE ROAD, BUNNACRE VIC 3086 AUSTRALIA www.bertallo.com.au Phone: 03 9337 1214 Fax: 03 9337 1215</p>	<p>DO NOT SCALE FROM DRAWING! (UNLESS NOTED OTHERWISE) THIS DRAWING IS THE PROPERTY OF BERTALLO ENGINEERING &amp; DESIGN. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED. REPRODUCTION OR TRANSMISSION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF BERTALLO ENGINEERING &amp; DESIGN IS STRICTLY PROHIBITED.</p>	<p>DATE: 20/02/2021 DRAWN BY: D. VAN DER BRUG CHECKED BY: DATE: APPROVED BY: DATE:</p>	<p>CFR HOSE TEST TRAILER &amp; HOSE WASH ASSY</p>	<p>SCALE: 1 : 15 A2</p>	<p>DATE: 20/02/2021 DRAWN BY: D. VAN DER BRUG CHECKED BY: DATE: APPROVED BY: DATE:</p>	<p>CFR HOSE TEST TRAILER &amp; HOSE WASH ASSY</p>	<p>SCALE: 1 : 15 A2</p>	<p>DATE: 20/02/2021 DRAWN BY: D. VAN DER BRUG CHECKED BY: DATE: APPROVED BY: DATE:</p>	<p>CFR HOSE TEST TRAILER &amp; HOSE WASH ASSY</p>
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	<p>AS 1100</p>								
	<p>CFR HOSE TEST TRAILER &amp; HOSE WASH ASSY</p>								

CFA has one approved Thermal Imaging Camera and supplier

### Model: - 3M Scott V320

Features a 90mm screen size and will operate in a temperature range of  $-20^{\circ}\text{C}$  to  $+650^{\circ}\text{C}$ .  
Up to Eight-hour runtime with a removable rechargeable battery.

The package includes:-

- 2 x batteries
- Hard carry case
- 240V charger
- Retractable lanyard

Pricing as at April 2023 - \$3,384 excl. GST

Brigade Contribution \$1,128

VESEP Contribution \$2,256



### Grant Formula

Equipment grants are funded by VESEP & Brigade, \$2 VESEP to \$1 Brigade with a maximum VESEP contribution of \$150,000.



### Background

The 2023-24 program continues the Amenities category to assist Brigades / Groups with grants for minor works and equipment that enhances the CFA member's wellbeing and amenities. The total value of these projects shall be less than \$5K in total (\$3,333 VESEP & \$1,667 Brigade contribution) and should be of a non-structural nature and not requiring a building permit.

### Items

Some suggestions for Volunteer amenities available under the program are listed below but are not limited to:

- Air Conditioning (New installations)
- Hot water Services (Upgrades)
- Kitchen Appliances: Fridge, Dishwasher, Oven, Boiling Water Unit, Crockery, Cutlery
- Furniture / Table / Chairs (Indoor & Outdoor)
- Window Furnishings

### Grant Formula

\$2 VESEP to \$1 Brigade – to a maximum VESEP contribution of \$3,333

### Background

The 2023-24 program continues with the Minor works category to a maximum project value of \$150,000.

### Outline

These projects are of a larger scale and will require full scoping and planning. Brigades and Groups interested must pre-register application details to ensure proposal is fully scoped with the VESEP Land & Buildings Department and should be discussed with their local Catchment Officer, Asset Project Officer and Assistant Chief Fire Officer.

The total project value is to be less than \$150,000.  
(\$100,000 VESEP and \$50,000 Brigade contribution)

Projects with a total project cost greater than \$150,000 will not be considered.

Some suggestions available under the program are but are not limited to:

- Air Conditioning (New installations)
- Hot water Services (Upgrades)
- Kitchen Appliances: Fridge, Dishwasher, Oven, Boiling Water Unit, Crockery, Cutlery
- Furniture / Table / Chairs (Indoor & Outdoor)
- Window Furnishings

### ***VESEP Minor Works Pre-Registration***

All applications must be registered with the VESEP Land & Buildings Project Manager via email [VESEPProject@cfa.vic.gov.au](mailto:VESEPProject@cfa.vic.gov.au) by the 1 June 2023.

**Refer to the VESEP 2023/24 Guidelines for more information regarding pre-registration.**

**Questions:** Matthew Mallett

: 0408 055 163

**Email:** [m.mallett@cfa.vic.gov.au](mailto:m.mallett@cfa.vic.gov.au)

### **Grant Formula**

\$2 VESEP to \$1 Brigade – to a maximum VESEP contribution of \$100,000

Following the introduction of VESEP funding for infrastructure works many brigades across the state have procured and installed static generators at Stations, Group Headquarters and Local Command Facilities.

To ensure a standard approach for maintenance, safety and recurrent costs, CFA has developed a standard specification for CFA Power Continuity.

### Details

Generator Capacity	Estimated Cost
20KVA	\$20,000
30KVA	\$21,000

### Pricing – Indicative @ March 2023

Please Note: The above costs **do not include** installation costs. i.e.: concrete slab, permits, switching arrangements nor commissioning. These costs are estimated between **\$9,000 - \$14,000** subject to site conditions.

Generally, 20kVA generator is applicable to a level 1C or less fire station.  
30kVA generator with an LCF with a for level 2 or above fire stations.

The generator capacity is designed to operate at an optimum operating capacity.

### **VESEP Pre-Registration**

**All** applications must be registered with the VESEP Land & Buildings Project Manager

Via email [VESEPProject@cfa.vic.gov.au](mailto:VESEPProject@cfa.vic.gov.au)

**Refer to VESEP 2023/24 Guidelines for more information regarding pre-registration.**

**Questions:** Matthew Mallett

**☎:** 0408 055 163

**Email:** [m.mallett@cfa.vic.gov.au](mailto:m.mallett@cfa.vic.gov.au)

It is important to note that GST is not factored into the total project costs, therefore the GST exclusive amount should be used to calculate the Brigade and VESEP contribution

### Grant Formula

Equipment grants are funded by VESEP & Brigade, \$2 VESEP to \$1 Brigade with a maximum VESEP contribution of \$150,000.