



VOLUNTEER FIRE
BRIGADES VICTORIA



Appendix – CFA Information Sheets - 2020

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Appendix – CFA Information Sheets

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

<http://cfaonline.cfa.vic.gov.au/mycfa/Show?pageId=bovVehicleAbout>

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Tanker Costs – VESEP 2020/21



Pricing - Indicative @ August 2020

Funding Source	ULT Landcruiser	Light Tanker Crew Cab	Medium Tanker Addition to Fleet	Medium Tanker Replacement Tanker
Brigade	\$ 21,667	\$ 29,167	\$ 126,667	\$ 58,333
Grant Contribution	\$ 120,833	\$ 193,333	\$ 253,333	\$ 321,667
Total	\$ 142,500	\$ 222,500	\$ 380,000	\$ 380,000

Cost escalation to point of build in 2021/22 allow up to 10% increase.
Options available on some appliances at Brigade cost

Specifications

Detailed information regarding these appliances is available via Brigades on line:-
Brigade, Property & Equipment, Brigade Owned Vehicles, VESEP, Tanker information

Grant Formulas

ULT, Light & Medium Tanker (Replacements)

Cab Chassis

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

Body

- Funded by grant contribution

Medium Tanker – Additions to Fleet

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

Toyota LandCruiser 70 series Workmate 4x4 MY20 cab chassis. The Toyota LandCruiser is an upgraded 3.95 tonne GVM cab chassis with air-conditioning, aftermarket wide alloy wheels, all-terrain tyres and 110 litre fuel tank. The vehicle includes 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.

Body Features

- Full aluminium construction, water-cooled diesel engine pump, locker/pump panel lights parking lights switched.
- Full LED lighting including emergency lights, colour coded valve handles and angled pump control panel.
- 550 litre water tank capacity, live hose reel with 30mx19mm light weight hose and Dial-A-Jet branch, 1 x 65mm delivery, 1 x 20-230 lpm selectable flow nozzle, 1 x air-aspirating foam nozzle, Dosatron foam system, LED work lights, 5.5m permanently connected suction hose.
- Supply and installation of radio (CFA and UHF), lights and sirens, battery guard
- Supply and fitment of decals
- Chainsaw & ancillary equipment

Provision of tools and equipment

- 4 x aluminium lockers, 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.



Indicative Costs

Cab Chassis Costs Funding By Brigade & VESEP	\$65,000
Funding Break up	
Brigade Contribution	\$21,667
Grant Contribution	\$120,833
Total Project Costs	\$142,500

Indicative prices as at August 2020 (excludes GST)
Cost escalation to point of build in 2020/21 up to 10% increase



BRIGADE OWNED VEHICLE BUILD-UP
Ultra-Light Tanker
(VESEP 2020/21)

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	MY20 Toyota LandCruiser 70 Series Workmate (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 (up-rated by Pedders)
1.4	Front Axle capacity rating 1,540kg (up-rated by Pedders)
1.5	Rear Axle capacity rating 2,420kg (up-rated by Pedders)
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 110 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"> • Standard bucket style driver's seat suitable for off-road operation • Standard bucket style passenger seat
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	12 volt electrical system c/w 130 ampere alternator
1.17	Polished aluminium bull bar
1.18	3,500kg rated towbar, c/w towball 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 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** (VESEP Cost)

Fire Pump Set and Associated Equipment

DESCRIPTION	
2.1	GAAM Mk70 / Kubota Z482 (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"> • Delivery manifold consisting of one (1) 65mm Storz coupling outlet • “Tank Fill Line Draughting” plumbing originating from the delivery manifold • 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 • Separate 38mm water “Tank Fill” line fitted with a 38mm external lug coupling • Pump cooling (bleed) line including in-line strainer and check valve
2.4	Pump engine fitted with 12V starter motor, 12V “Energise to Stop” 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 horizontally below rear 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 of the tray frame fitted with an aluminium light mounting frame (headboard)
3.3	Rear of the tray frame fitted with an aluminium light mounting 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) aluminium stowage locker (Standpipe locker, including stowage brackets and listed stowage equipment) located below tray on the nearside rear of the body
3.7	One (1) aluminium stowage locker (Suction Hose locker, including stowage brackets and listed stowage equipment) located below tray on the offside rear of the body
3.8	One (1) 550 litre nominal capacity fabricated aluminium water tank complete with one (1) sight level gauge, centrally located on the tray frame
3.9	One (1) live hose reel c/w 30m x 19mm lightweight Neidner hose and 1 x Dial-A-Jet nozzle
3.10	Live hose reel fitted with a Dosatron Foam System c/w "Off/Water/Foam" 3-way selector valve
3.11	Rear wheels fitted with aluminium mudguards
3.12	CFA radio c/w hand held control head and ignition relay
3.13	CFA portable radio charger (supplied with a CFA portable radio, if vehicle is additional to fleet)
3.14	External rear speaker for CFA radio (mounted on front light mounting frame)
3.15	GME XRS-370C UHF CB radio
3.16	Reversing camera c/w in-dash display
3.17	Reversing buzzer
3.18	Hazard Systems CS202 Hand-Held Siren/Light Controller (or equivalent) with control pad mounted on cabin dash and 100W speaker mounted on bull bar
3.19	Flashing headlights (alternate flashing)
3.20	Four (4) red and blue LED hazard lights (2 at front and 2 at rear of appliance)
3.21	One (1) red and blue LED mini light bar (mounted on front light mounting frame)
3.22	Two (2) LED scene lights (mounted on front light mounting frame)
3.23	One (1) Pump Bay LED scene light (mounted on rear light mounting frame)
3.24	One (1) Rear LED scene light (mounted on rear light mounting frame)
3.25	Two (2) LED combination rear tail/stop/indicator/reversing lamps (on rear bumper bar)
3.26	Two (2) LED reversing lights angled at 45° (c/w separate switch)
3.27	LED locker lights
3.28	LED flexible arm map light in cabin
3.29	Intellitec Battery Guard battery management system with Reset button located 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, " FIRE ", " Emergency 000 " and " Brigade Name " decals and " Aerial ID " number
3.31	Cabin engraved nameplates and decals
3.32	Weighbridge certificate of completed appliance
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 supplied as follows:

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
Cabin Stowage		
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 Dosatron Foam System Operating Manual	✓	
2 x Crew protection blankets – 1.8m x 2m - Red (CFA Part No. BLANKET)	✓	
1 x “SAA/ANZ HB 76:2010 Dangerous Goods – Initial Emergency Response Guide” book	✓	
Front Nearside (PPE) Locker - (NS1)		30kg max. capacity
2 x Crew tum out bags		✓
Rear Nearside (Hose) Locker - (NS2)		
1 x 15 metre x 64mm Duraline delivery hose with 65mm Storz couplings (CFA Part No. HDURALINE64CST15M)	✓	
2 x 30 metre x 38mm synthetic delivery hoses with 38mm external lug couplings (CFA Part No. HOSETW38CP30M)	✓	
2 x 30 metre x 25mm synthetic delivery hoses with 38mm external lug couplings (CFA Part No. HOSETW25CP30M)	✓	
1 x 10 metre x 38mm Duraline 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 TFT DQ-ECF-BD Quadrafog 20-230 litres/min. 500kPa selectable flow nozzle with TFT D75DP-BD ball valve, blue bale arm, blue pistol grip and 38mm external lug coupling	✓	
1 x TFT AYLND-NF long handle forestry gated Wye outlet c/w 3 x 38mm external lug couplings	✓	
1 x Scotty 4080 pistol grip bale shut-off fitted with Scotty 4020 air aspirating foam nozzle and 38mm external lug coupling	✓	
2 x “ OneKey ” spanners (CFA Part No. SSONEKEY)	✓	
Rear Nearside Under-Tray (Standpipe) Locker		
1 x CFA-approved aluminium short barrel service hydrant / standpipe c/w 65mm Storz couplings and 1 x blank cap with chain (CFA Part No. HYDALTWSSST)	✓	
1 x Standpipe key holder c/w 1 x “ OneKey ” spanner (CFA Part No. SSONEKEY)	✓	
Front Offside (Welfare) Locker - (OS1)		30kg max. capacity
1 x Drink cooler (“Esky”)	✓	

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
600ml drink bottles (quantity to suit drink cooler)		✓
1 x CFA First Aid Kit (CFA Part No. F2CFA)	✓	
Rear Offside (Chainsaw) Locker - (OS2)		
1 x Stihl MS311 FarmBoss chainsaw c/w 45-50cm bar and drip tray	✓	
1 x Chainsaw helmet (CFA Part No. HELMCS)	✓	
1 x Earmuffs (pair) (CFA Part No. HELMCSEMUFF)	✓	
1 x Visor (CFA Part No. HELMCSEVISOR)	✓	
1 x Chainsaw chaps - Medium (100cm) (CFA Part No. CHAPSCSM)	✓	
1 x Stihl 3/8" chainsaw chain sharpening kit (to suit the Stihl MS311 chainsaw)	✓	
1 x Scepter 03615 combination chainsaw fuel (6 litre) and chain / bar oil (2.25 litre) canister c/w (CFA Part No. FUELSTROKE50) and (CFA Part No. FUELCHAIN) 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 Firelogistics Backcare Boss 40-001-2603-0192 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 Angus STRBA SK75 (Hoening) stainless steel wire mesh basket strainer	✓	
1 x 10 metre x 12mm synthetic rope	✓	
1 x 4.5kg ABE dry chemical fire extinguisher	✓	
Rear Offside Under-Tray (Suction Hose) Locker		
1 x 5.5 metre x 65mm (pre-connected) flexible suction hose c/w 75mm Storz couplings and 1 x 250mm long stainless steel suction strainer with 75mm Storz coupling	✓	
Tray Stowage		
2 x 4 litre Firebug fixed wand fire lighters / drip torches	✓	
1 x 20 litre Phoscheck WD881 Class 'A' foam drum (CFA Part No. FOAMAC20L)	✓	
1 x 30 metre x 19mm lightweight Neidner (or equivalent) delivery hose c/w 38mm external lug coupling and 1 x SCOTTY "DIAL-A-JET" rotary nozzle c/w 38mm external lug coupling (on live hose reel)	✓	
1 x 65mm Storz to 38mm external lug adaptor (CFA Part No. ST6538ULC)	✓	
1 x Live hose reel rewind handle	✓	
Below-Tray Stowage		
2 x Rake hoes (CFA Part No. RAKEHOEM)	✓	
2 x Wheel chocks	✓	
1 x Removable tongue c/w towball for towbar	✓	
1 x Spare wheel and tyre	✓	
Between Cabin and Tray Stowage		
1 x Long handle shovel	✓	
1 x Axe	✓	
1 x Pulaski	✓	
Water Tank		
1 x Removable strainer (in overhead water tank filler)	✓	

Note: Additional stowage items are not approved

Summary Specification Prepared By:
CFA Fleet and Protective Equipment

Issue 6
21 April 2020

Overview

A new appliance to the CFA fleet, this crew cab light tanker has a nominal 1,700 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 7.5T 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 1,700 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

Cab Chassis Costs Funding By Brigade & VESEP	\$87,500
Funding Break up	
Brigade Contribution	\$29,167
Total Grant Contribution	\$193,333
Total Project Costs	\$222,500

Indicative price is at August 2020 (excludes GST)

Cost escalation to point of build in 2020/21 allow up to 10% increase



BRIGADE OWNED VEHICLE BUILD-UP
Light Tanker Crew Cab
(VESEP 2020/21)

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 MY20 Isuzu NPS 75-155 4x4 Crew (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. 7,500 kg
1.4 Front Axle capacity rating 3,100 kg
1.5 Rear Axle capacity rating 6,000 kg
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) or Automatic Transmission (AT)
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"> • Driver's adjustable spring suspension seat suitable for off-road operation (non-standard) • Front passenger bench seat (with centre seat replaced by document stowage console) • Rear passenger bench seat fitted with three (3) lap-sash seat belts (non-standard)
1.17 Heated and powered exterior main mirrors and independently adjustable convex "spot" mirrors
1.18 24 Volt electrical system c/w 90 ampere alternator
1.19 Polished aluminium bull bar fitted with centrally mounted tow pin
1.20 Two (2) Hella fog lights fitted in bull bar
1.21 Approved metal case Oblan or Donaldson pre-cleaner fitted to the air intake tube
1.22 Vehicle's exhaust discharges horizontally to left-hand side rear 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 (non-standard)
1.27 Crew cabin fitted with "B" Post stiffener (non-standard)
1.28 Crew cabin fitted with electro-hydraulic cab tilt (non-standard)
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** (VESEP Cost)

Fire Pump Set and Associated Equipment

DESCRIPTION	
2.1	GAAM Mk 150 / Kubota D902 (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"> • Delivery manifold consisting of two (2) 38mm external lug coupling outlets and one (1) 65mm Storz outlet • “Tank Fill Line Draughting” plumbing originating from the delivery manifold • Front delivery plumbing consisting of right and left-hand side under-tray 38mm external lug coupling outlets and three (3) 38mm external lug coupling outlets above-tray at front of body • Suction Manifold consisting of a separate permanently connected 8 metre x 75mm flexible suction hose, 65mm Storz “Hydrant Boost” inlet and 64mm water tank inlet • Separate 50mm water “Tank Fill” line fitted with a 65mm Storz coupling located on nearside of body • Front bull bar mounted tyre sprays plumbing originating from the right-hand side under-tray delivery plumbing c/w in-cabin mounted operating valve • Pump cooling (bleed) line including in-line strainer and check valve
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 Oblan C-021ES 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** (VESEP Cost)

Bodywork Build-up Arrangement

DESCRIPTION	
3.1	Aluminium 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 aluminium 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"> • “Drop-down” radiant heat protection curtains fitted to cabin windscreen and side windows • Electrically actuated crew spray protection system sprays fitted to cabin, tyres, pump and rear pump control panel • Cabin rear window replaced with aluminium panel • Sides and rear of the body enclosed with aluminium heatshielding panels • Aluminium infill panels between the cabin and body
3.6	Digital crew communication intercom system between cabin and deck area c/w flashing Magenta “ Call Cabin ” LED light in deck area
3.7	Top of the aluminium heatshielding panels on the offside and nearside front of the body fitted with safety yellow handrailing
3.8	Aluminium double-width stowage locker NS1 (including stowage brackets and listed stowage equipment) located on the nearside of the body
3.9	Aluminium blanket locker (including listed stowage items) located on top of NS1 accessible from the deck on the nearside of the body
3.10	Aluminium 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	Reversing Camera and forward-facing deck camera (integrated with Isuzu Digital Audio-Visual Entertainment Unit in-cabin display)
3.13	1,700 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 aluminium mudguards
3.17	A two (2) battery roll-out battery carrier, complete with radiant heat shielding (on nearside)
3.18	Intellitec Battery Guard battery management system with Reset button located on cabin dash
3.19	Two (2) 24 Volt jump-start/battery charger plugs (one located each side of body)
3.20	Two (2) red and blue LED mini light bars on cabin roof (blanked off to rear)
3.21	Four (4) red and blue LED hazard lights (2 at front and 2 at rear of appliance)
3.22	Alternate flashing headlight system
3.23	Central Coast Siren System
3.24	Low water level indication system
3.25	CFA radio c/w ignition relay
3.26	Rear speaker for CFA 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: <ul style="list-style-type: none"> • One (1) mounted at the offside of the vehicle off the water tank heat shield • One (1) 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

DESCRIPTION	
3.33	One (1) handheld halogen spotlight with flexible cord in 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, " FIRE ", " Emergency 000 " and " Brigade Name " decals and " Aerial ID " 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** (VESEP / **Brigade Cost**)

CFA-approved Stowage equipment is supplied as follows:

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
Nearside Locker (NS1) (Double width)		
1 x CFA First Aid Kit (CFA Part No. F2CFA)	✓	
1 x Emergency "A" Class foam kit (If foam system optioned)	✓	
1 x Small Town Shut-off branch c/w 38mm external lug coupling	✓	
1 x Quell TPB15-38mm 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 (CFA Part No. ST6538ULC)	✓	
2 x 65mm Storz spare bollards	✓	
2 x 64mm spare bollards	✓	
1 x 4.5kg ABE Dry Chemical Fire Extinguisher	✓	
2 x "OneKey" spanners (CFA Part No. SSONEKEY)	✓	
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 Duraline delivery hose c/w 65mm Storz couplings	✓	
1 x 15 metre x 38mm Duraline delivery hose c/w 38mm external lug couplings	✓	
3 x 30 metre x 38mm Duraline delivery hoses c/w 38mm external lug couplings (If dead hose reel fitted)	✓	
2 x 30 metre x 38mm Duraline delivery hoses c/w 38mm external lug couplings (If live hose reel optioned in lieu of Dead Hose Reel)	✓	
1 x Stihl MS311 FarmBoss chainsaw c/w 50cm bar and drip tray	✓	
1 x Chainsaw helmet (CFA Part No. HELMCS)	✓	
1 x Earmuffs (pair) (CFA Part No. HELMCSEMUFF)	✓	
1 x Visor (CFA Part No. HELMCSEVISOR)	✓	
1 x Chainsaw chaps - Medium (100cm) (CFA Part No. CHAPSCSM)	✓	
1 x Stihl 3/8" chainsaw chain sharpening kit (to suit the Stihl MS311 chainsaw)	✓	
1 x Scepter 03615 combination chainsaw fuel (6 litre) and chain / bar oil (2.25 litre) canister c/w (CFA Part No. FUELSTROKE50) and (CFA Part No. FUELCHAIN) 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	✓	
Blanket Locker (On top of NS1)		
3 x Crew protection blankets – 1.8m x 2m - Red (CFA Part No. BLANKET)	✓	
Offside Slide-Out Locker (OS1)		
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 Angus Fire Foamlite B65 Medium expansion Class "A" foam branch c/w 38mm external lug coupling (If foam system optioned)	✓	
1 x Phoenix R200 Low expansion Class "A" foam branch c/w 38mm external lug coupling (If foam system optioned)	✓	
On and Around the Crew Work Platform Area		
1 x Handheld LED spotlight c/w flexible cord and plug	✓	
1 x 4 litre " Firebug " fixed wand firelighter	✓	
1 x 25 litre drink cooler	✓	
600ml drink bottles (quantity to suit drink cooler)		✓
1 x Tank strainer (in water tank fill point)	✓	
2 x 2.5 metre x 38mm Duraline delivery hoses c/w 38mm external lug couplings and 2 x Quell TPB15-38mm brass fog nozzles c/w 38mm external lug couplings	✓	
1 x 2.5 metre x 38mm Duraline delivery hose c/w 38mm external lug couplings and 1 x Small Town shut-off branch c/w 38mm external lug coupling and 12mm nozzle	✓	
1 x 20 metre x 25mm RED Ortac delivery hose c/w 38mm external lug couplings and 1 x Quell TPB15-38mm brass fog nozzle c/w 38mm external lug coupling (on live hose reel) (If live hose reel optioned in lieu of Dead Hose Reel)	✓	
On Rear of Body		
1 x CFA-approved aluminium short barrel service hydrant / standpipe c/w 65mm Storz couplings and 1 x blank cap with chain (CFA Part No. HYDALTWSST)	✓	
Below Tray		
1 x 20 litre Phoscheck WD881 Class 'A' foam drum (CFA Part No. FOAMAC20L) (on slide-out rack located offside) (If foam system optioned)	✓	
2 x Rake hoes (CFA Part No. RAKEHOEM) (located in under-tray locker at rear nearside)	✓	
2 x Wheel chocks (one located on mudguard each side)		
Between Cabin and Body		
1 x Handheld LED spotlight c/w flexible cord and plug	✓	
Suction Hose Locker		
1 x 8 metre x 75mm (pre-connected) flexible suction hose c/w 75mm Storz couplings and 300mm long stainless-steel suction strainer with 75mm Storz coupling	✓	
1 x Suction hose float c/w chain and "D" shackle	✓	
1 x Angus STRBA SK75 (Hoenig) stainless steel wire mesh basket strainer	✓	
In the Cabin		
5 x Crew protection blankets – 1.8m x 2m - Red (CFA Part No. BLANKET)	✓	
1 x Handheld LED spotlight c/w flexible cord and plug	✓	
1 x Tanker Operating manual	✓	
1 x Quenchmaster Foam System operating manual (If foam system optioned)	✓	
1 x Cab Chassis Owner's Manual	✓	
1 x CFA Vehicle & Pump log book	✓	
1 x Pump/Engine Operating Manual	✓	

Description	Contractor and/or CFA F&PE to Supply	CFA Brigade to Supply (see Note)
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

5. OPTIONS (Brigade Cost)**Associated Fitments and Equipment**

Description	Estimated Brigade Cost (excl. GST) (Note 1)	Please (✓) if required
5.1 Live Hose Reel and delivery plumbing with 20 metres of 25mm Red "ORTAC" delivery hose (c/w 38mm external lug couplings) and one (1) Quell TPB15-38mm 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>	\$2,800	
5.2 Class "A" Foam - GAAM Quenchmaster Foam System (including one (1) 20 litre fresh water tank, one (1) foam drum rack, one (1) 20 litre drum of Phoscheck WD881 Class "A" foam, one (1) foam kit and two (2) Angus foam expansion branches)	\$4,700	
Total Brigade Cost	\$	-

Notes:

1. Indicative cost as at April 2020 (excludes GST)

Summary Specification Prepared By:
CFA Fleet & Protective Equipment

Issue 6
21 April 2020

Signed by CFA Fire Brigade

(Brigade Representative)

Date: / /

Approval by District Headquarters

(Operations Manager)

Date: / /

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 1322 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 1322 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 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 rota moulded water tank, 2,350 litres capacity including 650 litres of vehicle/crew spray protection water c/w baffle bones for surge protection.
- Fabricated steel/aluminium tray frame and external roll over protection bar.
- Class A Foam around-the pump proportioning system. Foam drum rack capacity; Two (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 12mm 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 – 1 x 38mm external lug and 2 x 65mm Storz.
- 1 x electric rewind live hose reel c/w 20m of 25mm hose mounted above tray NS rear.
- Aluminium fabricated above tray lockering / stowage including multi function ladder and chainsaw
- Dead hose reel off 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 August 2020 (excludes GST)

Cost escalation to point of build in 2020/21 allow up to 10% increase

Additional Tanker	Funding	Replacement Tanker	Funding
Brigade Contribution	\$126,667	Brigade Contribution	\$ 58,333
Total Grant Contribution	\$253,333	Total Grant Contribution	\$321,667
Total Project Cost	\$380,000	Total Project Cost	\$380,000

MEDIUM TANKER – 2020/21

OVERALL SPECIFICATIONS

❑ GVM:	13T	❑ Overall Length:	7.35 m
❑ Crew:	5	❑ Overall Height:	3.0 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 1322 4x4** Crew Cab Chassis
- ❑ Engine – 158 kW (212HP) 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, reversing camera
- ❑ Air over hydraulic braking system (*incl. ABS*)
- ❑ Aluminum bull bar & electric cab tilt
- ❑ Cabin internal support bar (*B post stiffener*)
- ❑ **Thermaguard SUPER THERM™** 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

- ❑ Polyethylene rota molded water tank – 2,350 litres capacity (including 650 litres for a vehicle/crew spray protection system) c/w baffle bones for surge protection.
- ❑ Fabricated steel/aluminum tray frame & external roll over protection bar
- ❑ 2 Staged **GAAM Mk 300D** pump/22kW **Hatz 2L41C** diesel engine (**Output: 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 TFT 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 - 1 x Ø38mm (*external lug*) and 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 NS rear undertray locker (*NS 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 **StormKing Mountain®** radiant heat protection curtain
- ❑ **Quenchmaster** CF700CFA inductive Class “A” foam system c/w slide-out drum rack for 2 x 20 litre Carboys (*OS 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** (slide out for pump bay maintenance access) - 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. (*OS rear undertray*)
- ❑ 20L fresh water tank
- ❑ NS undertray welfare locker c/w 25L removable esky – sufficient for 24 x 600ml water bottles



Weight Loadings for Common Diesel 4x4 FCV's.

m

Vehicle	Gross Vehicle Mass (GVM)	Tare Weight (Standard Vehicle – No Accessories)		Available Payload	
Nissan Navara RX, 4WD Double Cab	2910 kgs	1892 kgs		1018 kgs	
Nissan Navara SL, 4WD, Double Cab	2910 kgs	Manual- 1928 kgs	Auto- 1934 kgs	Manual- 982 kgs	Auto- 976 kgs
Nissan Navara ST, 4WD, Double Cab	2910 kgs	Manual- 1947 kgs	Auto- 1953 kgs	Manual- 963 kgs	Auto- 957 kgs
Nissan Navara ST X, 4WD	2910 kgs	Manual- 1971 kgs	Auto- 1977 kgs	Manual- 939 kgs	Auto- 933 kgs
Nissan Navara RX, 4WD, Double cab, (Cab Chassis only)	2910 kgs	Manual- 1764 kgs	Auto- 1780 kgs	Manual- 1146 kgs	Auto- 1130 kgs
Toyota Prado GX, Manual/Auto (5-seater)- with rear door mounted tyre.	2990 kgs	Manual- 2230 kgs	Auto- 2240 kgs	Manual- 760 kgs	Auto- 750 kgs
Toyota Prado GXL, Manual/Auto- with rear door mounted tyre.	2990 kgs	Manual- 2315 kgs	Auto- 2325 kgs	Manual- 675 kgs	Auto- 665 kgs
Toyota Prado VX, Auto only- with rear door mounted tyre.	2990 kgs	2385 kgs		605 kgs	
Toyota Landcruiser LC200 GX, Auto	3350 kgs	2640 kgs		710 kgs	
Toyota Landcruiser LC200 GXL, VX, Auto	3350 kgs	2740 kgs		610 kgs	
Toyota Landcruiser LC70 Wagon Work Mate	3060 kgs	2275 kgs		785 kgs	
Toyota Landcruiser LC70 Wagon GXL	3060 kgs	2265 kgs		795 kgs	
Toyota Landcruiser LC70 Double Cab Work Mate (Cab Chassis only)	3300 kgs	2190 kgs		1110 kgs	
Toyota Landcruiser LC70 Double Cab GXL (Cab Chassis only)	3300 kgs	2175 kgs		1125 kgs	
Toyota Hilux Work Mate, Double Cab, Manual/Auto	3000 kgs	Manual- 2045 kgs	Auto- 2045 kgs	Manual- 955 kgs	Auto- 955 kgs
Toyota Hilux SR, Double Cab, Manual/Auto	3000 kgs	Manual- 2050 kgs	Auto- 2045 kgs	Manual- 950 kgs	Auto- 955 kgs
Toyota Hilux SR 5, Double Cab, Manual/Auto	3000 kgs	Manual- 2040 kgs	Auto- 2045 kgs	Manual- 960 kgs	Auto- 955 kgs
Toyota Hilux Work Mate, Double Cab, Auto, (Cab Chassis only)	3000 kgs	1950 kgs		1050 kgs	
Toyota Hilux SR, Double Cab, Manual/Auto, (Cab Chassis only)	3000 kgs	Manual- 1955 kgs	Auto- 1955 kgs	1045 kgs	
Holden Colorado LS, Double Cab, Manual/Auto	3150 kgs	Manual- 2072 kgs	Auto- 2065 kgs	Manual – 1078 kgs	Auto- 1085 kgs
Holden Colorado LTZ, Double Cab, Manual/Auto	3150 kgs	Manual- 2144 kgs	Auto- 2137 kgs	Manual – 1006 kgs	Auto- 1013 kgs
Holden Colorado LTZ, Double Cab, Auto only (Cab Chassis only)	3150 kgs	2163 kg		987kgs	
Holden Colorado LS, Double Cab, Manual/Auto (Cab Chassis only)	3150 kgs	Manual- 1927 kgs	Auto- 1920 kgs	Manual – 1223 kgs	Auto- 1230 kgs
Ford Ranger XLS, Double Cab, 3.2L, Manual/Auto	3200 kgs	Manual- 2191 kgs	Auto- 2209 kgs	Manual- 1009 kgs	Auto- 991 kgs
Ford Ranger XLT, Double Cab, 3.2L, Manual/Auto	3200 kgs	Manual- 2212 kgs	Auto- 2230 kgs	Manual- 988 kgs	Auto- 970 kgs
Ford Ranger XL, Double Cab, 3.2L, Manual/Auto (Cab Chassis only)	3200 kgs	Manual- 1995 kgs	Auto- 2012 kgs	Manual- 1205 kgs	Auto-1188 kgs
Mitsubishi Triton GLX, Double Cab, Manual only (Cab Chassis only)	2900 kgs	1805 kgs		1095 kgs	
Mitsubishi Triton GLX, Double Cab, Manual/Auto	2900 kgs	Manual- 1950 kgs	Auto- 1955 kgs	Manual- 950 kgs	Auto- 945 kgs
Mitsubishi Triton GLX-R, Double Cab, Manual/Auto	2900 kgs	Manual- 1961 kgs	Auto- 1966 kgs	Manual- 939 kgs	Auto- 934 kgs
Mitsubishi Pajero GLX Manual / Auto	3030 kgs	2302 kgs		728 kgs	
Mitsubishi Pajero GLS Manual / Auto	3030 kgs	2319 kgs		711 kgs	

Toyota Hilux data is not current- no current data available. *

Weight Loadings for Common Diesel 4x4 FCV's.

Vehicle	Gross Vehicle Mass (GVM)	Tare Weight (Standard Vehicle – No Accessories)		Available Payload	
Mazda BT 50 XT, Double Cab, 3.2L Manual/Auto	3200 kgs	Manual- 2020 kgs	Auto- 2036 kgs	Manual- 1180 kgs	Auto- 1164kgs
Mazda BT 50 XTR, Double Cab, 3.2L Manual/Auto	3200 kgs	Manual- 2091 kgs	Auto- 2105 kgs	Manual- 1109 kgs	Auto- 1095 kgs
Mazda BT 50 GT, Double Cab, 3.2L Manual/Auto	3200 kgs	Manual- 2147 kgs	Auto- 2161 kgs	Manual- 1053 kgs	Auto- 1039 kgs
Mazda BT 50 XT, Double Cab, 3.2L, Manual (Cab Chassis only)	3200 kgs	Manual- 1932 kgs	Auto- 1946 kgs	Manual- 1268 kgs	Auto- 1254 kgs
VW Amarok Core, Dual Cab, Auto, V6	3080 kgs	2091 kgs		989 kgs	
VW Amarok V6 Sportline, Dual Cab, Auto	3080 kgs	2104 kgs		976 kgs	
VW Amarok V6 Highline, Dual Cab, Auto	3080 kgs	2174 kgs		906 kgs	
VW Amarok V6 Ultimate, Dual Cab, Auto	3080 kgs	2244 kgs		836 kgs	
Isuzu D-Max, LS-T, Double Cab, Auto	3050 kgs	2026 kgs		1024 kgs	
Isuzu D-Max LS-U, Double Cab Manual/Auto	3050 kgs	2021 kgs		1029 kgs	
Isuzu D-Max, LS-M, Double Cab, Manual/Auto	3050 kgs	2001 kgs		1049 kgs	
Isuzu D-Max,SX, Double Cab, Manual/Auto	3050 kgs	2016 kgs		1034 kgs	
Isuzu D-Max SX, Double Cab Manual/Auto (Cab Chassis only)	3050 kgs	Manual- 1886 kgs	Auto- 1891 kgs	Manual- 1164kgs	Auto- 1159 kgs

Definition & Requirements of a Field Command Vehicle

A four wheel drive off road vehicle of an appropriate size to operate in the bush. An FCV would be 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.

An FCV is to be built to the following specifications:

- Wagon or twin cab conventional vehicle diesel with snorkel intake
- Must be licensed to carry 4 or 5 people
- White or Red in Colour
- Fire Blankets
- Standard Light Bar, Grill lights & siren (funded separately)
- Two CFA radios, portable and one UHF radio (funded separately)
- Standard CFA Livery (funded separately)

Other Information

- All applications must be supported by a GVM weight pro forma as GVM upgrades will not be considered for any FCV vehicle.
- Brigades/Groups to supply VESEP Project Coordinator quotes in accordance with Victorian Government procurement guidelines for all components of the project. Coordination required between Brigade/Group and suppliers.
- Additional items will require District approval and be included within weight calculations

The GVM weight pro forma is available on Brigades on Line:- Brigade / Property & Equipment / Brigade owned vehicle / Equipment information. GVM upgrades are not permitted on any FCV.

For replacement vehicles previously funded through the program the \$2 : \$1 funding formulae will now only be applied to the net change over value (ie: cost less trade in value)



Grant Formula

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

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 a six speed 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 4x4 Utility (White)

- Five Star ANCAP Rating
- 3.2l Turbo Charged Diesel Engine
- 6 Speed automatic Transmission
- Dual batteries, and reversing alarm
- Nudge bar, 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
- Side Steps
- Towbar with flat pin wiring plug
- All-terrain tyres
- Two CFA Tait radios
- Driving Light Bar (RF Comms Safe Compatible)
- Reverse Camera
- GVM 3200kg
- Pre-Collision Assist (AEB with Pedestrian Detection)
- Lane Keeping Aid with Driver Alert System
- Automatic High Beam
- A genuine Ford bulbar can be provided in lieu of side steps



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 powder coated service body with lift up doors. Transferable between cab chassis.
- Full aluminium construction
- Roll out under tray rear drawer
- Rubber matting
- Tie down points
- 12 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
- Six USB charging points (4 inside cabin, 2 inside body)
- Central locking of all above tray locker doors wired to Ford remote
- Adjustable shelves
- Fire protection for cab chassis electrical wiring looms
- ENGEL Fridge
- Fridge Tilt/ Slide bracket.
- VASS Certification
- One UHF radio (GME)
- Rear seat map light
- Whiteboards



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
 - be exceeded
- For replacement vehicles previously funded through the CSESP or VESEP program the \$2 : \$1 funding formulae will be applied to the net change over value (ie: cost less sale value exc GST). The existing CSESP/VESEP FCV vehicle to be disposed of by the Brigade/Group. See example below.

Grant Formula

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

Indicative Costs - exc GST

Brigade Contribution	\$26,667
Grant Contribution	\$53,333
Total Project Costs	\$80,000

Example of previously funded CSESP/VESEP vehicle formula.

Total Project Cost	\$80,000
Less estimated sale price	\$20,000
Total Project Application	\$60,000

Brigade Contribution	\$20,000 + estimated sale value of existing FCV
Grant Contribution Maximum	\$40,000

Indicative prices as at August 2020 (excludes GST)

Cost escalation to point of build in 2021 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) : 1.5 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 65mm Storz deliveries (near side)
- 9m 100mm 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 dry chemical extinguisher	Offside 2 Locker
10L diesel fuel container	2 x 25L eskies
Shovel, aluminium hydrant, 2 x traffic cones	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

Brigade Contribution	\$22,500
Total Grant Contribution	\$45,000
Total Project Costs	\$67,500

Indicative price is at April 2020 (excludes GST)

Cost escalation to point of build in 2020/21 allow up to 10% increase

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 chequer plate tray frame and drawbar
- Single 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) : 1.1 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 65mm Storz deliveries (near side)
- 9m 100mm 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 (2x65mm-15m, 1x38mm-15m)	Esky
Miscellaneous adaptors	First aid kit
General Tray	Forward Wheel Arch Lockers x (2)
4.5kg dry chemical extinguisher	Wheel chocks, jack and wheel brace
10L diesel fuel container	Stabiliser pads
Shovel, aluminium hydrant, rakehoe, 2 x traffic cones	Miscellaneous
Mussel c/w 100 mm Storz	

VESEP 2020/21 Single Axle Trailer Pump



Indicative Cost

Brigade Contribution	\$18,333
Total Grant Contribution	\$36,667
Total Project Costs	\$55,000

Indicative price is at April 2020 (excludes GST)
Cost escalation to point of build in 2020/21 allow up to 10% increase

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 has developed a standard technical specification for general purpose trailers for single or tandem axles. If considering an application please review the specifications to ensure compliance.

Details

The detailed technical specifications is available on Brigades on Line & CFA Intranet :-

Brigades On Line

[Home](#) > [Running a Brigade](#) > [Property & Equipment](#) > [Brigade Owned Vehicles](#) > Equipment Information

Intranet

[Home](#) > [Fire & Emergencies](#) > [Vehicles](#) > [Brigade Owned Vehicles](#) > Equipment Information

GST

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.

VESEP 2020/21

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 & Utility Proban covered chainsaw chaps high visibility orange</p> <p><i>SLC Product Codes</i></p> <p>CHAPSCS Available in short, medium & long lengths</p>		<p>\$228.00</p>
<p>Professional Safety Helmet (supplied with visor and ear muffs)</p> <ul style="list-style-type: none"> • <i>Helmet includes CFA logo</i> <p><i>SLC Product Codes</i></p> <ul style="list-style-type: none"> • HELMCS - Helmet • HELMCSEMUFF - Ear Muffs • HELMCSVISOR - Visor 		<p>\$95.00</p>

Indicative Cost

Funding Breakup

Brigade Contribution	\$ 108.00
Grant Contribution	\$ 215.00
Total Project	\$ 323.00

Pricing – Indicative @ May 2020

The Pelican 9430 Remote Area Lighting System (RALs) is an approved CFA product.



Details

- Up to 15 hours of burn time
- 3000 Lumens of brightness
- Fully extendable mast with 360 degree rotating head
- Low Battery Warning system
- Waterproof Rubber Activation Switch
- Mast Extension Lock
- Maintenance Free LED Array with 50,000 hours of life expectancy



Pricing – Indicative @ April 2020

Costs for the unit are approximately \$1,600

GST

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

- Purpose built aluminium trailer with egress ramp
- Two portable toilets
- Wash basin station
- Waste disposal bin



Indicative Costs

Funding Break up

Brigade Contribution	\$ 8,333
Grant Contribution	\$16,667

Total Project Costs	\$25,000
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Indicative prices as at April 2019 (excludes GST)
Cost escalation to point of build in 2019/20 up to 10% increase

The CFA has two approved Thermal Imaging Camera suppliers and models

Model: - Draeger UCF 9000

Features a 90mm high definition screen and will operate in a temperature range of -40 to 1000 degrees Celsius

The package includes:-

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

Pricing @ April 2020 - \$9725 exc GST

Brigade Contribution \$ 3242

VESEP Contribution \$ 6483



Model: - 3M Scott V320

Features a 90mm screen size and will operate in a temperature range of -20 to 650 degrees Celsius.

The package includes:-

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

Pricing @ April 2020 - \$3014 exc GST

Brigade Contribution \$ 1005

VESEP Contribution \$ 2009



Grant Formula

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

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

Toyota LandCruiser 70 Series Workmate 4x4 MY20 cab chassis, turbo-diesel, manual, front wheel flares and GVM Upgrade to 3,780 kg. Fitted with alloy bull bar, bonnet protector, reversing camera, headlight protectors, 3,500kg towbar, tow ball, towbar wiring, floor mats, air conditioning, intercooler guard, steering guard and engine air intake heat shield, 16" x 7" alloy rims, all-terrain tyres, registration and on-road costs.

Big Fill Body

- Aluminium tray and lockers
- Decals, emergency lights, sirens, radios, scene lights, spot light, reversing beeper, reversing camera and green "Quickfill" lights
- Water-cooled diesel engine powered centrifugal pump
- Pelican remote area lighting system c/w tripod and in-vehicle charger
- (4x) 2.4m clear "Heliflex" suction hoses, suction strainer, Hoenig wire basket, float and rope
- (2x) 100mm/65mm Storz spanners
- (4x) 30m x 64mm delivery hoses
- (2x) 15m x 64m delivery hoses
- (2x) 30m x 38mm delivery hoses
- Aluminium service hydrant
- Selection of hose adaptors
- (2x) Witches hats
- (2x) Rake hoes
- (2x) Portable Green flashing lights
- Tow strap
- Shovel and axe
- First aid kit
- (2x) Woollen fire blankets
- Drinking water cooler
- Tool box (c/w pliers, adjustable spanner, screwdrivers)
- 4.5kg AB dry chemical fire extinguisher & bracket
- Provision for limited Brigade stowage items. Maximum 50kg (excepting crews)
- Operating Manuals



Indicative Cost

Cab Chassis Costs Funding By Brigade & VESEP	\$65,000
Funding Break up	
Brigade Contribution	\$21,667
Grant Contribution	\$130,833
Total Project Costs	\$152,500

Indicative price is at April 2020 (excludes GST)
 Cost escalation to point of build in 2020/21 allow up to 10% increase

	BRIGADE OWNED VEHICLE BUILD-UP Big Fill (VESEP 2020/21)
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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 MY20 Toyota LandCruiser 70 Series Workmate Cab Chassis of 4WD (4x4) configuration (with dual range transfer case) and a two (2) person single cabin
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) 3,780kg (Upated by MDT)
1.4 Front Axle capacity rating 1,540kg (Upated by MDT)
1.5 Rear Axle capacity rating 2,300kg
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
1.9 Limited slip differential fitted to rear axle
1.10 Ventilated disc service brakes fitted with ABS, Brake Assist, Vehicle Stability Control, Hill Assist Control, Electronic Brake Force Distribution and “A-Trac”
1.11 Five (5) 16” x 7” alloy rims fitted with all-terrain tyres (including spare wheel)
1.12 Fuel tank capacity 110 litres (non-standard)
1.13 Cabin interior including engine immobilizer, idle-up control, tilt-adjustable steering wheel, power steering, fully integrated air-conditioning, driver and passenger airbags, curtain shield and driver’s knee airbags
1.14 Front seating incorporating: <ul style="list-style-type: none"> • Standard bucket style driver’s seat suitable for off-road operation • Standard bucket style passenger seat
1.15 Air cleaner snorkel fitted to the engine air intake and air cleaner fitted with flameproof air filter element (non-standard)
1.16 12 volt electrical system c/w 130 ampere alternator
1.17 Polished aluminium bull bar
1.18 3,500kg rated towbar, c/w towball 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

DESCRIPTION	
2.1	GAAM Mk500 / Isuzu 4LE2 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"> • Delivery consisting of two (2) 65mm Storz ball valve controlled outlets angled downwards at 30° above tray-level at rear • Suction consisting of a 100mm Storz inlet angled downwards at 15° above tray-level at rear
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	Hazard Systems CS202 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 (" Quickfill ") 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	Intellitec Battery Guard 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, " FIRE ", " Emergency 000 " and " Brigade Name " decals and " Aerial ID " number
3.31	Cabin engraved nameplates and decals
3.32	Weighbridge certificate of completed appliance
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)
Nearside Front Locker NS1 (Front)		
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	✓	
Nearside Front Locker NS1 (Rear)		
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	✓	
Nearside Rear Locker NS2		
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	✓	
Offside Front Locker OS1		
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		✓
Rear Suction Hose Locker		
3 x Suction hose - 100mm x 2.4m long CLEAR <i>Heliflex</i> c/w 100mm Storz swivel couplings	✓	
1 x Suction hose - 100mm x 2.1m long CLEAR <i>Heliflex</i> c/w 100mm Storz swivel couplings and 300mm long Suction Strainer fitted with 100 Storz coupling	✓	
Tray		
2 x Witches hat	✓	
1 x Fire extinguisher – 4.5kg Dry Chemical (AB)	✓	
2 x Rake hoes (<i>CFA Part No. RAKEHOEM</i>)	✓	
Undertray		
2 x Wheel chock (one each side)	✓	
1 x Towbar gooseneck and tow ball	✓	
1 x Shovel – long handle (located nearside front of tray)	✓	
Nearside Undertray Locker		
1 x CFA-approved aluminium short barrel service hydrant / standpipe c/w 65mm Storz couplings and 1 x blank cap with chain (<i>CFA Part No. HYDALTWSST</i>)	✓	
Offside Undertray Locker		
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	✓	
In-Cabin		
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 14
22 April 2020

Signed by CFA Fire Brigade

(Brigade Representative)

Date: / /

Approval by District Headquarters

(Operations Manager)

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 drivers license.

Cab Chassis – Isuzu NNR 45-150

- 4x2, 4.5 Tonne GVM
- Seating for a crew of 4
- Tow bar fitted
- Vehicle can be driven on a standard drivers license

Cab Chassis will differ from the photo supplied

Body Construction

- Aluminium lock tube 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 portable water tank
- CFA standard striping and decaling
- Stowage for brigade supplied equipment including portable generators, tables, chairs, tent, esky etc, estimated 650kg
 - Front through locker Volume 3.1m³ Nominal
 - Rear locker Volume 2.2m³ Nominal
- Brigade Funded option available:
 - 3m manually operated awning (each side), Thule Omnistor 4900 or an equivalent.
 - Ventilated fuel locker, mounted under frame



Indicative Costs

Funding Break up

Brigade Contribution	\$40,000
Grant Contribution	\$80,000

Total Project Costs \$120,000

Option Awning (per side) – Additional Brigade Contribution \$1,400

Option Fuel Locker – Additional Brigade Contribution \$750

Indicative prices as at April 2020 (excludes GST)

Cost escalation to point of build in 2020/21 up to 10% increase



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)
- Version 2 – 4 x 2 short body (manual)
- Version 3 – 4 x 2 long body (auto)

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 (wheelbase shortened to 3,395mm)
- Version 3 - Hino 921(or equivalent) 4x2 Crew Auto cab chassis with 8.5T GVM (wheelbase shortened to 3,870mm)

Body

- Prefabricated aluminum framed body (SES specification)
- Storage compartments can be configured to suit user requirements (see GA drawings)
- 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)
- Seating for 5 crew (including 3 x lap/sash seat belts in rear)
- Storage console between driver and front passenger seats
- Nearside awning
- Minor brackets and straps for Brigade storage 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:

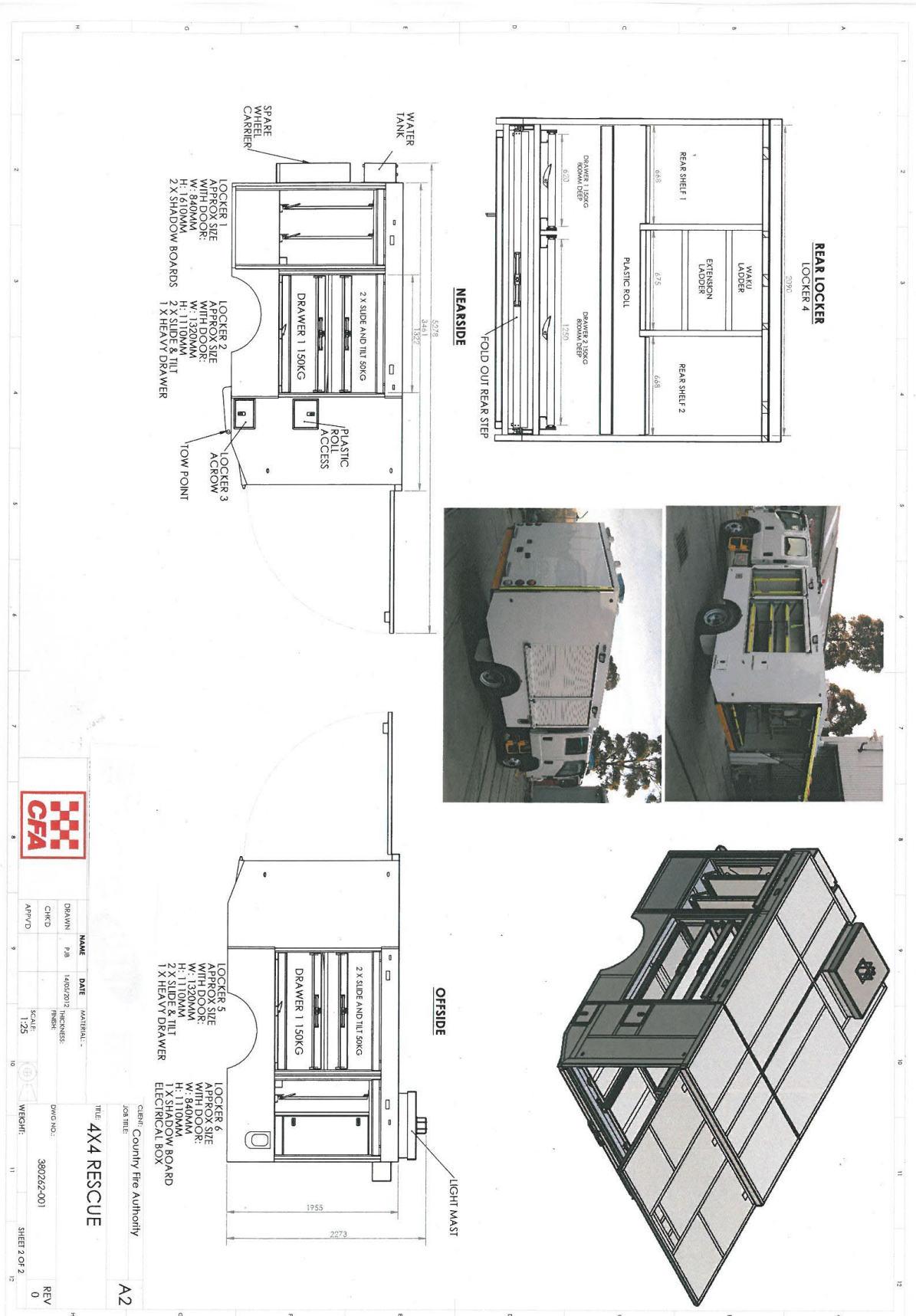
- Red painted cab and body
- Aluminum bullbar
- Inbuilt hydraulic powered 8kVA 240V generator system
- Inbuilt engine powered alternator with 8kVA 240V inverter system
- 240V reticulated power system
- Wheel arch lockers (x 2)
- Inbuilt 240V compressed air system (240V generator or 240V inverter system 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)

Indicative Costs as at August 2020 (excludes GST)

Cost escalation to point of build in 2021 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	\$ 77,500	\$ 75,000	\$74,167
VESEP Contribution	\$150,000	\$150,000	\$148,333
Total Project Costs (excluding options)	\$227,500	\$225,000	\$222,500

General Assembly Drawing – 4x4 short body (Version 1) and 4x2 short body (Version 2)



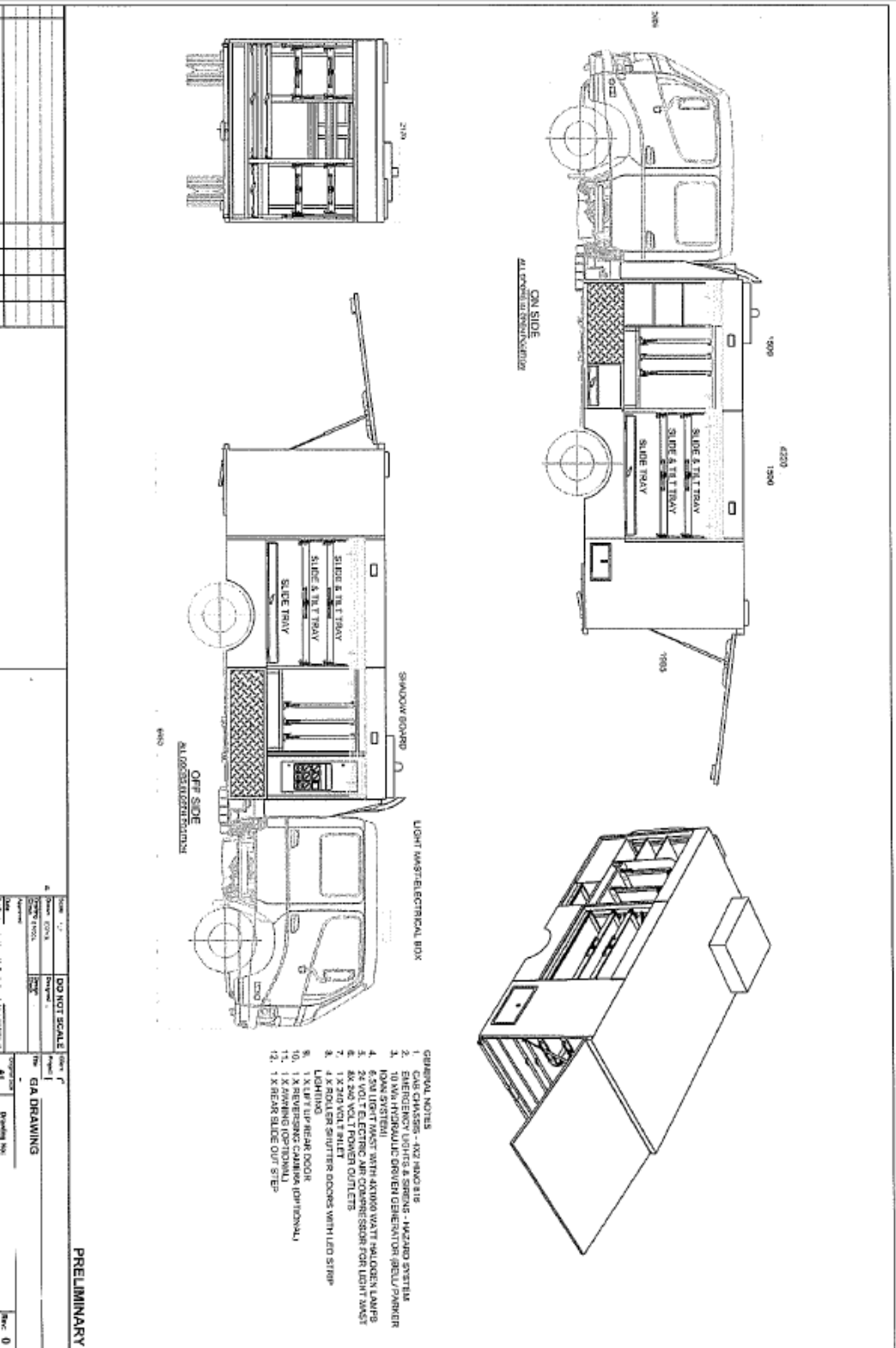
NAME	DATE	MATERIAL
DRAWN PAB	14/05/2012	INCHES
CHKD		FINISH
APPVD		SCALE 1:25

TITLE	DWG NO.	SCALE	REV
4X4 RESCUE	380262-001	1:25	0

CLIENT: County Fire Authority
 JOB TITLE: A2
 SHEET 2 OF 3

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

General Assembly Drawing – 4x2 long body (version 3)



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

The Side x Side vehicle is used to assist with fuel reduction burns as an efficient and safe method of lighting. It can also be used for herbicide spraying. A rear tilt tray provides flexibility making the vehicle suitable for a variety of roles at staging areas, technical rescue, etc.

Vehicle

The two seater, four wheel all-terrain vehicle travels on low pressure tyres and can operate in 2 or 4 wheel drive mode. It is fitted with a ROPS certified roll frame.

- 800cc (approx.) in line, water cooled Diesel
- Constant variable transmission, 2WD/4WD
- Front and rear differential lock
- Ground clearance 280mm or above
- Dimensions (approx.) L 3018mm, W 1520mm, H 1905mm
- Weight approx. 700kg

**NOTE: a base frame will be fabricated in the tray for mountain the burner unit / spray unit*

Features

- Electronic Power Steering
- Windscreen
- Roof Kit

Safety features include

- Lap sash seatbelts
- Head rests

Trailer

11' x 6' Heavy Duty Tandem Trailer

- Chequer plate floor
- 65 x 35 RHS chassis
- 40 x 40 RHS cross members
- 75 x 50 RHS drawbar
- 15" deep chequer plate sides
- 40mm square duraflex axles
- 5 leaf x 60mm roller rocker springs
- 9" hydraulic override brakes on front axle
- Full width gas spring assisted ramp
- Tie down points with individual wheel load restraint straps
- Full length braced tie rails each side
- Spare wheel
- Multi volt LED lights
- 8" quick release jockey wheel
- Hot Dip Galvanising
- ADR to 2000kg gross

**NOTE: trailer construction specification may vary*

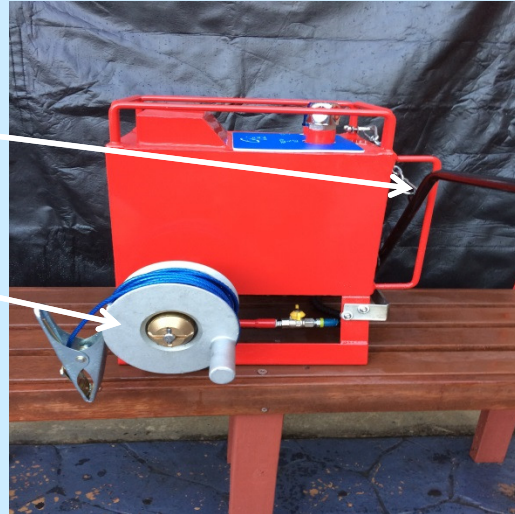




Side x Side Equipment

- AS/NZS 2906-2001 compliant 25lt burn fuel container with drip torch
- Red/blue warning lights front and rear facing
- GME 80 channel UHF radio
- Ground "earthing" cable for attachment to refueling container / tank attached
- First Aid Kit
- 1.5kg Dry powder fire extinguisher
- Helmet brackets (x2)

Optional Extra: 300lt herbicide container with spray attachment and 12v power point wired in vehicle



Indicative Cost

Brigade Contribution	\$13,000
Total Grant Contribution	\$26,000

Total Project Costs excluding options \$39,000

Options : 300lt herbicide container with spray attachment including 12V power point \$ 2,000

Indicative price is at April 2020 (excludes GST)
Cost escalation to point of build in 2020/21 allow up to 10% increase

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.



Background

CFA Steering Committee has indicated that one of the priorities for this funding round is to assist Brigades / Groups with grants for minor works and equipment that enhance 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, not requiring a building permit.

Items

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

- Kitchen refurbishments/Fridge
- Stove/Oven
- Tables/ Chairs
- Air Conditioning
- Hot water Services
- Carpet/Lino
- Furniture
- Crockery/Cultery

Grant Formula

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



Background

The VESEP program continues with the Minor works category with a project value of \$100K.

Outline

These projects are of a larger scale and will require full scoping and planning. Brigades and Groups interested must pre register the project with the VESEP Land & Buildings Project Manager and should also discuss with their local Catchment Officer, Asset Project Officer and Assistant Chief Fire Officer.

The total project value is to be less than \$100K.
(\$66,667 VESEP and \$33,333 Brigade contribution)

Projects with a total project cost greater than \$100K will not be considered.
Projects that have not been pre registered with the VESEP Minor Works Project Manager will not be considered.

Executive Manager Land & Buildings VESEP Minor Works Project Manager

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Grant Formula

\$2 VESEP to \$1 Brigade – to a maximum VESEP contribution of \$66,667