Overstrand Municipality Vehicle & Equipment Maintenance and Replacement Policy for Fire & Emergency Services, Disaster Management and Security Services

Approved by Council
28 September 2022

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1. DEFINITIONS

For the purpose of this policy and procedures document as well as Code of Practice, the following definitions shall apply:

1.1 Bush Pumper, Firefighting

Any light, mobile vehicular unit with limited pumping and water capacity for off-road operations

1.2 Driver

All persons engaged in the operation of vehicles and plant, being:

1.2.1 Officials are any persons who is permanently or temporarily employed or contracted by the Overstrand Municipality

1.2.2 Occasional driver is not a permanent driver but is required to use a municipal vehicle on an ad hoc basis to perform his/her duties.

1.2.3 An authorized driver is an official of Overstrand Municipality who holds the prescribed applicable valid driver's License and are competent to operate such vehicle, and who has been duly authorized to drive an official vehicle from external service provider by a Vehicle Administrator who has the authority to grant such approval

1.2.4 Professional driver is employed specifically to drive municipal vehicles for general transport purposes.

1.2.5 Operator is employed specifically to operate civil engineering plant.

1.3 Engine, Firefighting

Any ground vehicle providing specified levels of pumping, water, hose capacity, and staffed with a minimum number of personnel as per SANS10090

1.4 Mobile Communications Centre (Mobile Emergency Operations Centre [EOC]; Mobile Command Centre; Continuity of Operations Vehicle)

A vehicle that serves as a self-sustaining mobile operation centre capable of operating in an environment with little to no basic services, facilitating communications between multiple entities using an array of fixed and/or wireless communications equipment, providing appropriate work space for routine support functions, and providing basic services for personnel in short-term or long-term deployments.

1.5 Municipal Vehicle

All vehicles and civil engineering plant, equipment (self-driven or otherwise), motorcycles, boats, trailers, stationary engines, etc. operated on overall management of or on lease or hire from:

i) The Fleet Management Services Division
ii) An external service provider

1.6 Service Provider

i) In respect of municipal-owned vehicles, it shall be the Fleet Management Services.
ii) In respect of non-owned municipal vehicles, it shall be the relevant external service provider.

1.7 Safe Parking

1.7.1 Designated municipal parking

1.7.1 Enclosed premises

1.8 Water Tender

A truck with a permanently mounted water tank with the capabilities of dispensing potable or non-potable water.

1.9 Official Vehicle

All vehicles registered in the name of Overstrand Municipality and all vehicles from the Provincial Government of the Western Cape made available by way of an official agreement to be utilized by Overstrand Municipality.

2. INTRODUCTION

This "Vehicle Maintenance and Replacement Policy" which includes all Fire & Emergency Services, Disaster Management and Security Services vehicles and equipment, is structured to provide Overstrand municipality with the most cost-effective method to maintain Fire & Emergency and Disaster Management and Security Services fleet and equipment. This vehicle Maintenance and Replacement Policy will ensure that all Fire & Emergency and Disaster Management and Security Services vehicles and equipment are serviced on time and properly utilized to ensure an effective and professional service necessary to save lives and properties.

3. LEGAL REQUIREMENTS

3.1 Related Policies and Legislation

- The Constitution of the Republic of South Africa 1996
- Local Government, Municipal Systems Act (No 32 of 2000), as amended
- The Fire Brigade Services Act, Act 99 of 1987
- Disaster Management Act of 2002
- National Road Traffic Act 93 of 1996
- Standard By-law relating to Community Fire Safety P.N. 6454/2007
- SANS 10090:2003 Community Protection Against Fire
- Overstrand Fleet Management Policy
- Code of Conduct for Municipal Staff Members

The measures stated in this policy seek to regulate the use of all Fire & Emergency, Disaster Management and Security Services vehicles and equipment designated for the use by the Fire& Emergency, Disaster Management and Security Services of Overstrand municipality personnel authorized to do so. This policy does not replace the Overstrand fleet management policy and must be read in conjunction with the Overstrand Fleet Management Policy. Any violation of either mentioned policies may lead to disciplinary action.

4. PURPOSE

This policy is intended for the effective and efficient management of all Fire & Emergency Services, Disaster Management & Security Services vehicles and equipment to improve service delivery in Overstrand Municipality.

5. EMERGENCY VEHICLE TYPING

Table 1 - Urban Pumper

RESOURCE	ENGINE (Urban Pumper)							
CATEGORY	• FIREFIGHTING [ESF #4] • HAZARDOUS MATERIALS [ESF#10] • SEARCH & RESCUE [ESF #9]		Call Sign Designation	ENGINE - E-			Drive Train	4x 2 or 4x4 TRUCK
MINIMUM CAPABILITIES		TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V	TYPE VI	TYPE VII
COMPONENT	METRIC							
EQUIPMENT	PUMP CAPACITY (l/min)	3850	2250	1850	1800	190	190	190
	TANK CAPACITY (litres)	1800	1800	1800	2800	1800	1000	800
	HOSE (63mm)	360m (12 X 30m)	300m (10 x 30m)	150m (5 x 30m)	90m	90m	90m	90m
	HOSE (38mm)	300m (10 X 30m)	150m (5x 30m)	300m	90m	90m	90m	60m
	Hose (25mm)	60m	90m	200m	90m	90m	90m	60m
	LADDER	9-10m OR 13.5m / 3 Extension	9-10m / 3 Extension	6 m / 2 extension	--	--	--	--
	Optional: HYDRAULIC RESCUE (JAWS of LIFE)	Full Set with rams and chains	Full Set with rams and chains	Combo–Set	Combo-Set	--	--	--
PERSONNEL	PERSONNEL	4 (excl.driver and Officer)	3 (excl. driver and Officer)	3 (incl. driver)	2 (incl. driver)	2 (incl. driver)	2 (incl. driver)	2 (incl. driver)

Table 2- Water Pumper

RESOURCE	TANKER PUMPER (Water Tender)				
CATEGORY	• FIREFIGHTING [ESF #4] • HAZARDOUS MATERIALS [ESF#10]	Call Sign Designation	TANKER –T-	Drive Train	4x 2 or 4x4, 6 x 6 TRUCK
MINIMUM CAPABILITIES		TYPE I	TYPE II	TYPE III	TYPE IV
COMPONENT	METRIC				
	PUMP CAPACITY (l/min)	1200	1135	450	250
	TANK CAPACITY (litres)	10000	7000	4000	3500
COMMENTS	All Types to have connection compatibility of being able to have direct pump connection to Engine or Bush Pumpers.				

Table 3- Bush Pumper

RESOURCE	BUSH PUMPER (Rural Pumper)				
CATEGORY	• FIREFIGHTING [ESF #4]	Call Sign Designation	PUMPER –BP-	Drive Train	4x4 TRUCK/ MEDIUM TRUCK or LCV
MINIMUM CAPABILITIES		TYPE I	TYPE II	TYPE III	TYPE IV
COMPONENT	METRIC				
EQUIPMENT	PUMP CAPACITY (l/min)	1250	750	450	250
	TANK CAPACITY (litres)	1800	1000	600	600
	HOSE (63mm)	--	--	--	-
	HOSE (38mm)	300m	90m	60m	60m
	Hose (25mm)	200m	90m	60m	60m
PERSONNEL	PERSONNEL	2	2	2	2

Table 4- Incident Command Vehicle

RESOURCE	MOBILE COMMAND UNIT (Also referred to as "Mobile EOC")				
MINIMUM CAPABILITIES		**TYPE I**	**TYPE II**	**TYPE III**	**TYPE IV**
COMPONENT	**METRIC**				
Equipment	**On Scene Video Monitoring**	Through fixed camera system with streaming via 3G/4G or satellite	Through fixed camera system with streaming via 3G/4G or satellite	Through fixed camera system with streaming via 3G/4G	No
	Computer Aided Dispatch	Yes	Yes	Yes	No
	Voice Communication	Landlines, Cellular and Satellite	Landlines, Cellular and Satellite	Cellular or Satellite	Cellular
	Computer /Server Capabilities	Same as Type III	Same as Type III	Hardwired or Wireless LAN with AVR and Power surge protection	Basic 3G Laptop
Personnel	**Function**	Same as Type II except Driver /Operator to be minimum Station Officer rank.	Same as Type III plus: ICT Support Radio Communications Support	Same as Type IV	Driver /Operator
	Deployment Capabilities	All types should be capable of: • Operating in an environment with little or no basic facilities , including no electrical service and phones lines • Providing own power generation and fuel supply to operate a minimum of 3-4 days from station • Sustaining long term deployment as well as short term responses • Facilitating communications between multiple agencies (Provincial and municipal agencies) • Operating as FCP, ICP and EOC • Minimal Set up time			

6. FIRE & EMERGENCY SERVICES, DISASTER MANAGEMENT AND SECURITY SERVICES VEHICLES

6.1 Maintenance and Repairs to Vehicles

6.1.1 All emergency vehicles should be subject to regular, documented maintenance carried out by competent persons.
6.1.2 The developing of a department maintenance program should include the vehicle manufacturer's requirements and recommendations.
6.1.3 Safety checks shall form an integral part of all maintenance programmes.
6.1.4 Defects affecting an emergency vehicle's operational ability should be referred to competent maintenance personnel.
6.1.5 It shall be the responsibility of the driver of a vehicle to report any mechanical or other defect to the Assistant Chief Operations and Training / Municipal Fleet Officer, when a vehicle is returned to him/her at the end of a trip;
6.1.6 While a vehicle is under warranty of the manufacturer only dealers approved by the manufacturer will be used for the repair of a vehicle. All warranty work must be claimed from the dealers;
6.1.7 The department will report to fault to the Municipal Fleet Officer to book pre-authorization and provide the kilometre reading and registration number of the vehicle.
6.1.8 The approved service provider will do a "strip and quote"
6.1.9 For mechanical works over a certain amount an inspector will be sent out to assess the work and determine whether the cost is fair and whether it is necessary to do the work
6.1.10 The service provider will get an instruction on when repair work can proceed
6.1.11 The repairs and/or maintenance will be done in accordance with the quotation and invoicing will take place. Thereafter payment will be processed.

6.2. Replacement Schedule of Vehicles

6.2.1 This replacement program should ensure that newer and older vehicles are spread as evenly as possible throughout the fleet to avoid too many ageing emergency vehicles remaining in commission simultaneously.
6.2.2 Provision must also be made in the replacement program to replace problematic vehicles sooner than the maximum prescribed period. Such vehicles should include units which have high maintenance and repair costs and vehicles which do not serve the purpose for which they were intended.
6.2.3 Replacement of all Fire & Emergency Services, Disaster Management and Security Services vehicles are based on one of the following criteria's:

- SANS 10090:2003 Community Protection Against Fire

Table 5 - Replacement periods (as prescribed by SANS 10090:2003) or

1	2
Type of vehicle/equipment	Period
	Max. number of years service
Pumping appliances	15
Aerial appliances	20
Off-road vehicles	10
Special appliances	20
Light vehicles	8

- The American Public Works Association (APWA),

  A simple subjective points system to rank vehicles for replacement. Vehicle replacement is based on several factors including initial cost, trade-in value, kilometres, type of use, effects of down time relating to the provision of services, maintenance costs and age of the vehicle. The points are totalled, vehicles with the highest score "need immediate attention and vehicle which score exceeds 28 points, needs to be replacement.

Table- 6 Vehicle Replacement Guide *(Source: APWA adapted)*

Factor	**Points**		
Age	One point for every year of chronological age, based on in-service date.		
Kilometres/Hours	One point for each 15,000 km or 1,000 engine hours of use.		
Type of Service	One, three, or five points are assigned based on the type of service the unit is exposed to. For instance, fire pumpers would be given a five because it is classified as severe duty service. In contrast, an administrative sedan would be given a one.		
Reliability	Points are assigned as one, three, or five depending on the frequency that a vehicle is in the shop for repair. A five would be assigned to a vehicle in the shop two or more times per month on average, while a one would be assigned to a vehicle in the shop an average of once every three months or less.		
M&R Costs	One to five points are assigned based on total life M&R costs (not including repair of accident damage). A five is assigned to a vehicle with life M&R costs equal to or greater than the vehicle's original purchase price, while a one is given to a vehicle with life M&R costs equal to 20 percent or less than its original purchase cost.		
Condition	This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, and so on. A scale of one to five points is used with five being poor condition.		
Point Ranges	Fewer than 18 Points	Condition I	Excellent
	18 to 22 points	Condition II	Good

	23 to 27 points	Condition III	Qualifies for replacement
	28 points and above	Condition IV	Needs immediate consideration

EXAMPLE 1
Applying the chart above, use a 15-year-old fire pumper. The unit has 120,000 km; is in poor condition; and includes massive amounts of downtime, poor reliability, and repair costs that exceed more than 80 percent of its original purchase price.
The points would be assigned as follows:

Age = 15 points
Kilometres= 8 points
Type of service is severe = 5points
Reliability = 5points
M&R costs = 3 points (quickly approaching 5)
Condition = 5 points
Total = 41 points and needs immediate consideration
28 points and above Condition IV Needs immediate consideration

EXAMPLE 2
Applying the chart above, use a 5-year-old fire pumper. The unit has 60,000 km; is in good condition; and includes low amounts of downtime, good reliability, and repair costs don't exceed more than 20 percent of its original purchase price.
The points would be assigned as follows:

Age = 5 points
Kilometres= 4 points
Type of service is severe = 3 points
Reliability = 1 points
M&R costs = 1 points
Condition = 1 points
Total = 15 points
Fewer than 18 Points Condition I Excellent

6.3 Procurement of Additional Fire & Emergency Services Vehicles

6.3.1 The Department should assess the suitability of its emergency vehicle fleet on a regular basis to ensure that the department has a fleet which has the capacity, capability and flexibility to meet the needs of the changing and expanding risks of the community.
6.3.2 Where necessary, the emergency vehicle fleet should be increased by the procurement of suitable, additional vehicles in accordance with a specification compiled by competent persons.
6.3.3 The use of refurbished vehicles should not be used for first turnout appliances.
6.3.4 Refurbished vehicles used for support functions should be tested and certified annually.
6.3.5 Overstrand Council may budget for the replacement of vehicles annually.

6.3.6 Requests for a new or replacement vehicle should be submitted to the Municipal Fleet Officer who will submit to the Senior Manager not later than the time when budget submissions are due for the following financial year. The Senior Manager should be provided with full details pertaining to the need to replace a vehicle including the running cost of the current vehicle, utilization and availability. The service that the vehicle is expected to support should be highlighted;

6.3.7 Overstrand Municipal Council shall, when approving a budget allocation for a new or replacement vehicle indicate in its budget approval the vehicle to be replaced and the nature of the replacement vehicle to be purchased; and

6.3.8 New vehicles shall be purchased by the Council only in accordance with its prescribed Supply Chain Management Policy and Procedures.

7. FIRE & EMERGENCY SERVICES EQUIPMENT

7.1 Maintenance and Repair

- Emergency vehicles should carry a complete range and quantity of equipment suitable for the specific type of vehicle and adequate for use at incidents within the (fire) risk categories protected.
- All equipment should be subject to replacement and procurement policies and testing, examination, checking and maintenance procedures.
- All departmental equipment should be subjected to regular, documented examination, testing and maintenance.
- Occupational safety and the recommendations of the manufacturer must be included in all examination, testing and maintenance program.

7.2 Replacement of Fire & Emergency Services, Disaster Management and Security Services Equipment

- The department should regularly assess its equipment to determine whether or not such equipment is obsolete or unserviceable.
- A documented annual equipment replacement program must be developed to ensure that obsolete and unserviceable equipment is replaced systematically.

7.3 Procurement of additional Equipment

All departmental equipment must be assessed regularly to ensure that the equipment is suitable for the changing and expanding (fire) risks in the community.

8. INSURANCE OF VEHICLES AND EQUIPMENT

Accidents and/or incidents must be reported as soon as possible to the respective department and due processes must be followed. All Fire & Emergency Services vehicles and equipment must be insured at the replacement value

9. AMENDMENTS / UPDATES

New amendments or updates will be added to the Amendments and Updates Listing below. It is the responsibility of the individual to regularly check the currency of their Policy copy.

Proposals for amendment or additions to the text of this Plan should be forwarded to:-
The Senior Manager Fire & Emergency Services, Disaster Management and Security Services,
L. Smith
Telephone: (028) 313 5041
E-mail: lestersmith@overstrand.gov.za

DATE OF REVIEW	DETAILS OF PAGE(S) AMENDED OR REPLACED

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