VEHICLE & PLANT MANAGEMENT STRATEGY

REFERENCE NUMBER: P44
ORGANISATIONAL UNIT: Infrastructure
RESPONSIBLE POSITION: Director Infrastructure
RELEVANT DELEGATIONS: NIL
DATE ADOPTED: 2 December 2009
REVIEW DATE: Every four years

Objectives:
To establish Central Desert Shire's strategy related to management of vehicles and plant.

Legislation and Reference:
Not Applicable

Strategy:
Goal 2 Physical Assets – Well managed and maintained physical infrastructure.
Outcome 2.2 : Effective Management of Shire infrastructure, facilities, plant and equipment.

CENTRAL DESERT SHIRE STRATEGIC PLAN FOR THE MANAGEMENT OF VEHICLES AND PLANT

1 PRINCIPLES

Central Desert Shire is committed to:

- Managing its fleet of vehicle and plant as cost effectively as possible.
- Ensuring vehicles and plant are in safe working condition.
- Ensuring vehicles and plant are fit for purpose.
- Ensuring the appropriate number of vehicles and items of plant are managed to meet service delivery requirements within constraints imposed by available resources.
- Ensuring vehicle and plant use is consistent with environmentally sustainable outcomes.
- Ensuring that procurement and disposal of vehicles and plant are in accordance with Central Desert Shire's Tender Policy.
- Ensuring that appropriate cost recovery is achieved for plant and vehicles used to provide agency and commercial services.
- Maintaining an accurate register of its vehicles and plant.
- Maintaining and regularly updating a planned schedule of proposed acquisitions and disposals.

2 APPLICATION OF THIS STRATEGY

This strategy applies to:

- Establishing the basis for allocation of plant and vehicles to each Service Delivery Centre.
- Establishing the basis for the disposal of surplus plant and equipment
- Establishing the basis for the acquisition of plant and equipment
- Application of shire resources to optimise the quality of the Shire's fleet

- To guide Council in making informed decisions in relation to the cost of operating and renewing the Shire's fleet

3 CURRENT STATUS OF FLEET

3.1 Fleet by type

Central Desert Shire currently (November 2009) has **262** confirmed items of plant and equipment. This list includes all core, agency and commercial services vehicles. The value of this list as of 1st July 2008 is estimated to be **$6,606,075.00**.

This list is likely to be understated with respect to some vehicles which are in-operable and or unregistered and are expected to be disposed of in 'as is' condition. The list is also likely to understated in relation to trailers and possibly some items of plant that have not previously been registered or have disputed ownership. There are some tractors that are considered to belong to owners of outstations which have not come under the direct management of the Shire. These tractors are understood to belong to the Shire through the transition of ownership at the commencement of the Shire.

Vehicles	164
Plant	60
Trailers	38
TOTAL	**262**

Table 1: Total Vehicles and Plant by Type

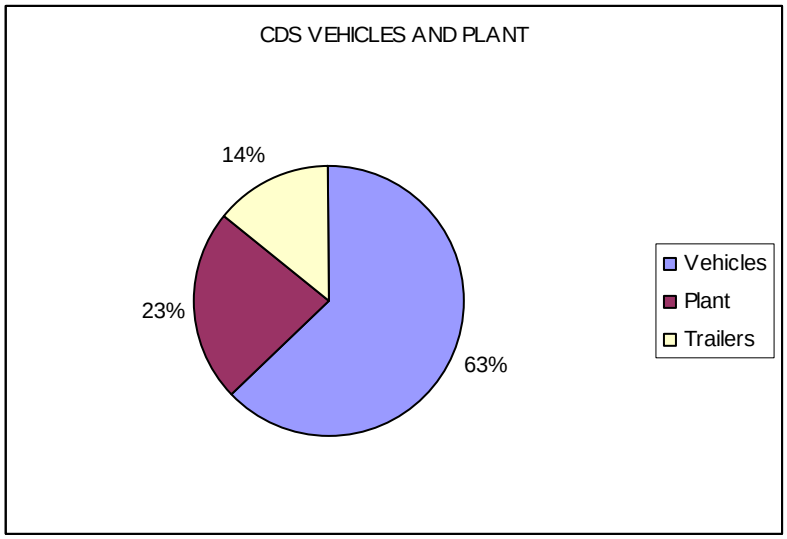


Figure 1: Percentage of Vehicles and Plant by Type

3.2 Fleet by Service Delivery Centre

Listed below are the vehicles, plant and trailers by Service Delivery Centre. This list includes agency and commercial services vehicles.

	Vehicles	Plant	Trailers

Shire	14	0	1
Engawala	6	2	2
Harts Range	13	10	5
Lajamanu	30	12	6
Laramba	11	3	0
Nyirripi	11	6	1
TiTree	33	5	4
Willowra	10	6	9
Yuelamu	12	10	2
Yuendumu	22	8	8
	162	**62**	**38**

Table 2: Number of Vehicles and Plant by Location

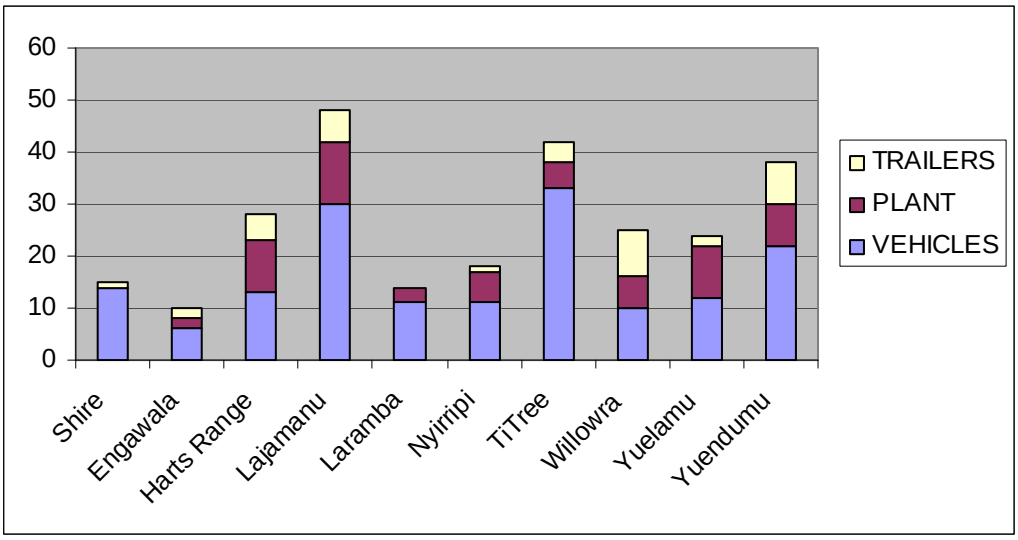


Figure 2: Vehicles and Plant by Location

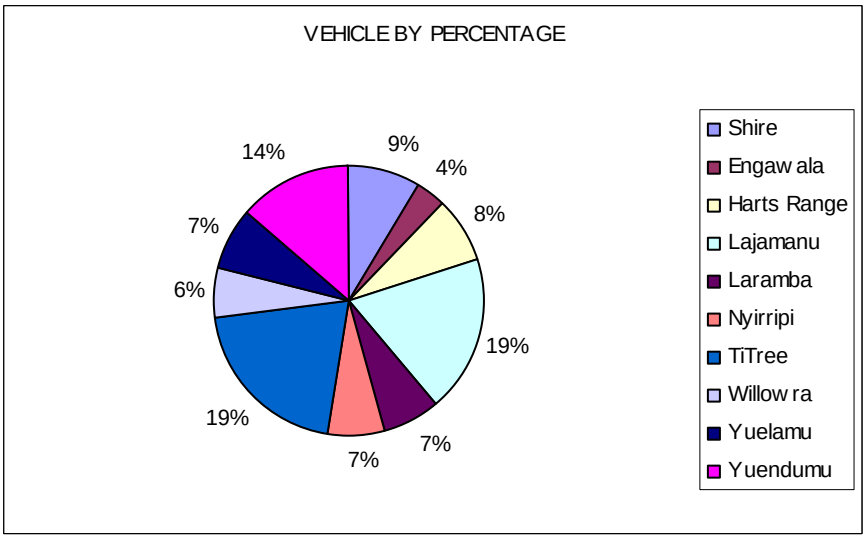


Figure 3: Vehicles and Plant by Percentage

4 LIABILITY FOR COST OF VEHICLE OPERATION

4.1 Vehicle costs to be met by respective ser vice

- All vehicle costs should be met by the respective service that they are used for.
- Where a vehicle is used for more than one service its costs should be equitably distributed between services.
- The service that reflects the predominant use should underwrite all costs with cost recovery to that service from other minor use. This limits risk related to un-recouped costs.

4.2 Vehicle replacement costs

- Provision is required to meet the cost of replacing vehicles at the end of their effective, economic or strategic working life.
- These costs need to be met by the service using the vehicle.
- Where vehicles are used for Core Services the cost of replacement is a liability of the Shire.
- Where vehicles are purchased by the Shire in support of a non-core service, the cost of replacement (depreciation or lease equivalent) should be met as a recurrent cost of the service.
- Where the service grants funds for the capital cost of purchasing a vehicle and commits to the end of use capital replacement, these cost do not need to be met as recurrent expenses.

5 COST OF RUNNING VEHICLES

Vehicle running cost are made up of the following:

- Fuel and Oil
- Tyre repair and replacement
- Registration and insurance
- Scheduled servicing
- Un-scheduled repairs and maintenance including insurance excess, accidental and operational damage
- Depreciation being the loss of value between purchase and sale as a result of usage, aging and premature condition decline (rough condition)

5.1 Depreciation

Depreciation is generally accounted in one of two ways:

1. **Diminishing Method**: Is used to calculate the value of the asset by deducting an annual percentage from the value of the asset. The percentage is deducted from the depreciated value the next year and so on. This generally better represents the ‘true’ value of the asset because it has some value even when old.
2. **Fixed Method**: Is based on a fixed annual percentage being deducted from the value of the asset each year until the asset has no value. At 20% annual depreciation the value becomes 0 after 5 years.

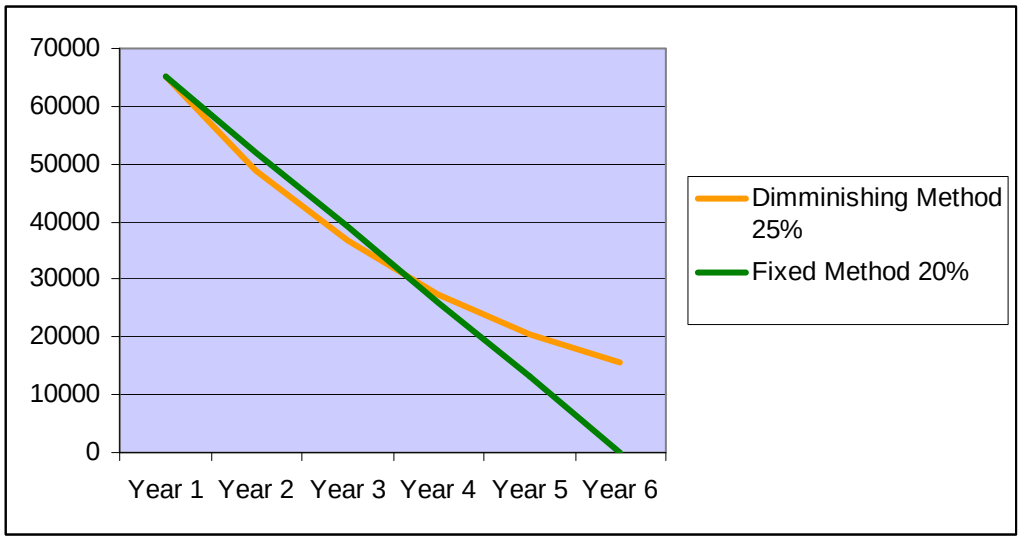


Figure 4: Comparative Depreciation Chart

Figure 4 above shows how the value of a vehicle declines using both methods. The following points are important:

1. These depreciation methods are used for accounting purposes and may not reflect actual value.
2. The 'book value' generated by both methods is reasonably accurate during the first 3 years.
3. The diminishing method is more accurate than the fixed method the longer the asset is retained.
4. An asset will depreciate much more quickly if it has experienced rough use – panel damage, interior damage, poor maintenance.
5. Actual depreciation is the difference between purchase price and sale price achieved on disposal.

Generally a vehicle will lose half its value in the first 3 years of operation and quarter of its value in the second 3 year period (age 4 to 6).

This is an important consideration in relation to the purchase of work vehicles which are subject to 'accelerated' depreciation as a consequence of the environments in which they are used.

Significant savings in depreciation can be achieved by careful purchase of good quality used vehicles for use into works applications.

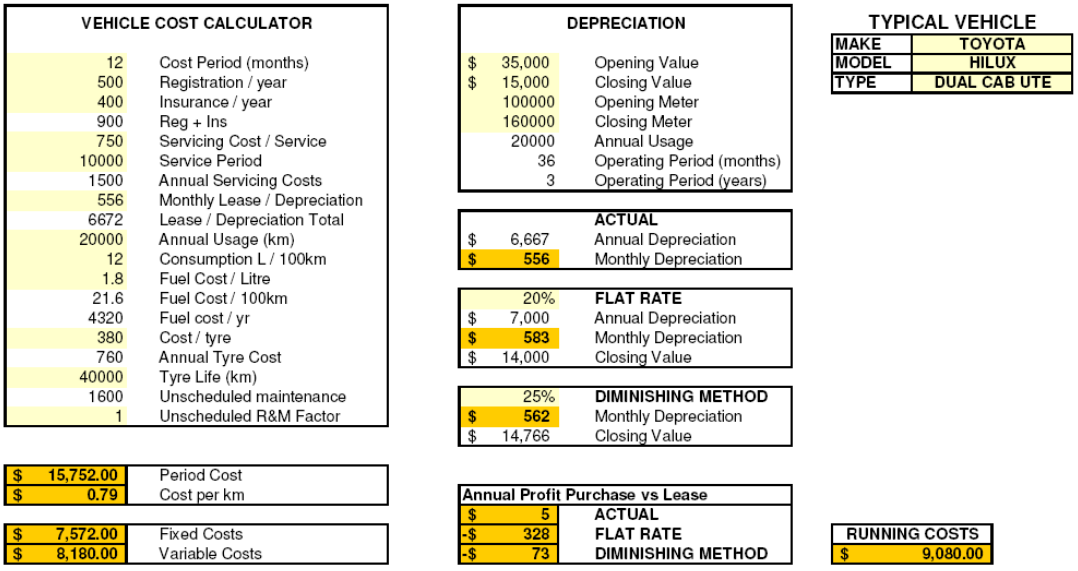
The annual depreciation liability is likely to be between **$1.32** million and **$1.65** million.

5.2 Vehicle Operating Costs

Typical operational costs are tabled below. Refer to calculation charts for assumptions in cost calculations.

MAKE MODEL	RUNNING	DEPREC	TOTAL	Per km

	COSTS			
Toyota Prado Petrol	$14820	$12,480	$27300	$0.91
Toyota Prado Diesel	$11580	$11,760	$23,340	$0.78
Toyota LCruiser tray new 30k	$14,970	$14,400	$29,370	$0.98
Toyota LCruiser tray SH 20k	$11,780	$7,680	$19,460	$0.97
Toyota Hilux 4 x 4 new 30k	$11,490	$9,600	$21,090	$0.70
Toyota Hilux 4 x 4 SH 30k	$12,190	$7,500	$19,690	$0.66
Toyota Hilux 4 x 4 SH 20k	$9,089	$6,672	$15,753	$0.79
Toyota Hilux 2 x 4 SH 20k	$7,200	$3,960	$11,190	$0.61



5.3 Plant Operating Costs

Plant annual operating costs are more difficult to model accurately. This is because there are greater variables in relation to the nature of work being undertaken, how hard the machine is being worked, the conditions in which the machine is being used.

The following costs are typical depreciation costs for plant being used for production work – work where the item of plant is working 60% or more than maximum annual hours. For most items of plant 60% usage would be 1000 hours per year. (200 days x 8 hrs = 1600hrs).

DESCRIPTION	DEPRECIATION / HOUR USE
Grader / Bulldozer	$18.00 - $25.00
Backhoe / Loader	$10.00 - $12.00

Skidsteer	$6.00 - $8.00
Tractor	$4.00 - $6.00

Where an item of plant is being under-used the cost of depreciation escalates. For example a new tractor being under-used will have 4 to 6 times the depreciation costs:

DEPRECIATION COST PER HOUR			
Purchase cost	$55000	$55000	$55000
Annual hours	250	400	500
Years retained	5	5	5
Total hours	1250	2000	2500
Sale price	$25000	$22500	$20000
Cost per hour	$24	$16.25	$14

Typical operational costs are tabled below

DESCRIPTION	OPERATION / HOUR USE
Grader / Buldozer	$60.00 - $90.00
Backhoe / Loader	$30.00 - $40.00
Skidsteer	$20.00 - $25.00
Tractor	$15.00 - $20.00

Typical cost of operating a backhoe loader is tabled below.

BACKHOE LOADER			
Annual Hours	200	400	600
Operational/hr	$30	$30	$30
Depreciation/hr	$30	$22.5	$15
Total Annual Cost	$12000	$21000	$27000

Greater use of trailers (box, flat-bed and tipping) reduces overall operational cost by ensuring greater use of tractors. It also allows multiple different vehicles to operate as the tow vehicle reducing dependency on any one vehicle. This also reduced operational and depreciation costs of running multiple trucks.

It is not possible at this stage to quantify at present the division of costs between Shire services and Commercial and Agency Services.

Using 2008-09 figures it appears that maintenance of vehicles and plant for the financial year amounted to **$1.53 million**. This equates to approximately **$5900** per item. (Figures taken from PR-000089 and PR-000088). This amount includes agency and commercial services as well as Shire core services. The 2008-09 budget for vehicle maintenance was **$484,106** (this excludes maintenance costs assigned to agency and commercial services). For the 2009-10 year to date (Period 5) the expenditure plus commitment amounts to **$603,000**. At this rate the annual expenditure will be **$1.48 million**.

6 ALLOCATION OF VEHICLES TO SERVICE DELIVERY CENTRES FOR CORE SERVICES

6.1 Standard staff vehicle allocation by Service Delivery Centre Size

Vehicles should be allocated to service delivery centres generally in accordance with the table below for large and medium communities. Number of vehicles should be minimised to limit the SDC operational budget and to limit the Shire's depreciation liability.

A shift towards standardisation of make and model of plant and vehicles should be adopted to optimise management of servicing and parts.

ROLE	Medium	Large
SSM	4x4	4x4
Work Supervisor 1	4x4	4x4
Work Supervisor 2		2x4
Work Supervisor 3 (Lajamanu)		2x4
Spare / Office / CLO		2x4 or 4x4
ESO	2x4	2x4
TOTAL	**3**	**5** or **6**
Note: Core works vehicles not included Agency and Commercial vehicles not included		

6.2 Staff vehicle allocation by Service Delivery Centre

ENGAWALA	PLANNED	ACTUAL
SSM	4x4	4x4
Work Supervisor	4x4	4x4
ESO	2x4	2x4

HARTS RANGE	PLANNED	ACTUAL
SSM	4x4	4x4
Work Supervisor	2x4	4x4
ESO	4x4	4x4

LAJAMANU	PLANNED	ACTUAL
SSM	4x4	4x4
Work Supervisor 1	4x4	4x4
Work Supervisor 2	2x4	4x4
Work Supervisor 3	2x4	2x4
Office / CLO	2x4	2x4
ESO	2x4	4x4

LARAMBA	PLANNED	ACTUAL
SSM	4x4	4x4
Work Supervisor	2x4	2x4

NYIRRIPI	PLANNED	ACTUAL

SSM	4x4	4x4
Work Supervisor	2x4	4x4
ESO	4x4	4x4

TI TREE	PLANNED	ACTUAL
SSM	4x4	4x4
Work Supervisor 1	4x4	4x4
Work Supervisor 2	2x4	2x4
Office / CLO	2x4	2x4
ESO	2x4	4x4

WILOWRA	PLANNED	ACTUAL
SSM	4x4	4x4
Work Supervisor	2x4	4x4
ESO	4x4	4x4

YUELAMU	PLANNED	ACTUAL
SSM	4x4	4x4
Work Supervisor	4x4	4x4
ESO	2x4	4x4

YUENDUMU	PLANNED	ACTUAL
SSM	4x4 Prado	4x4
Work Supervisor 1 Dilip	4x4 SC	4x4
Work Supervisor 2	2x4 SC	4x4
Office / CLO	4x4 DC	2x4
ESO	2x4	4x4

6.3 Typical annual vehicle costs by location (excluding works plant and vehicles).

ENGAWALA	RUNNING	DEPREC
SSM	$12,190	$7,500
WS	$9,089	$6,672
ESO	$7,200	$3,960
	$28,479	**$18,132**
HARTS RANGE		
SSM	$12,190	$7,500
WS	$4,544.50	$3,336.00
ESO	$11,780	$7,680
	$28,515	**$18,516**
LAJAMANU		
SSM	$11,780	$7,680
WS1	$9,089	$6,672
WS2	$9,089	$6,672
WS3	$7,200	$3,960
ESO	$9,089	$6,672

OFFICE	$7,200	$3,960
	$53,447	**$35,616**
LARAMBA		
SSM	$12,190	$7,500
WS	$7,200	$3,960
	$19,390	**$11,460**
NYIRIPI		
SSM	$11,780	$7,680
WS	$11,780	$7,680
ESO	$11,780	$7,680
	$35,340	**$23,040**
TITREE		
SSM	$14,820	$12,480
WS	$7,200	$3,960
WS	$9,089	$6,672
ESO	$11,780	$7,680
OFFICE	$7,200	$3,960
	$50,089	**$34,752**
WILLOWRA		
SSM	$12,190	$7,500
WS	$9,089	$6,672
ESO	$11,780	$7,680
	$33,059	**$21,852**
YUELAMU		
SSM	$11,580	$11,760
WS	$10,580	$11,400
ESO	$10,580	$11,400
	$32,740	**$34,560**
YUENDUMU		
SSM	$14,820	$12,480
WS	$9,089	$6,672
WS	$9,089	$6,672
ESO	$9,089	$9,600
OFFICE	$7,200	$3,960
	$49,287	**$39,384**
	RUNNING	**DEPREC**
TOTALS	**$330,346**	**$237,312**
OVERALL TOTAL	**$567,658**	

To operate vehicles for staff in Service Delivery Centres the following are typical average costs.

AVERAGE RUNNING COST BY SDC	
MEDIUM	$35,500
LARGE	$51,000

AVERAGE TOTAL COST BY SDC	
MEDIUM	$61,000

LARGE	$87,500

PLANT & VEHICLES	SHIREWIDE	MEDIUM	LARGE
Backhoe Loader + forks	1	1	1
Truck Tipper - Small	1	1	1
Truck Tipper - Medium	0	0	1
Truck Flat bed - Medium	0	0	1
Truck Flat bed - Heavy	1	0	0
Tractor with loader bucket - Medium	1	1	1
Tractor for slasher + auger - Medium	0	1	1
Tipping trailer	0	1	1
Trailer tandem box or flatbed	0	1	1
Trailer single axle box	0	1	2
Trailer plant / vehicle recovery	1	1	1
Trailer Fire or Slip-on fire unit	1	1	1
Rubbish trailer	1	1	0
Truck rubbish compactor	0	0	1
Skidsteer	2	0	1
Dozer	1	0	0
Grader	3	0	0
Loader	0	0	1
Telescopic Handler	1	0	0
Track Loader	1	0	0
Septic pump truck or trailer		1	If on septic
Agitator			
Prime Mover	1		
Semi flat-bed or drop-deck float	1		

VEHICLE & PLANT REPLACEMENT 2009-10						
Make	Model	Location	Plate	Opening value	Disposal value	Replacement cost
LANDROVER	DEFENDER TD5	Engawala	639802	10,000.00	5,000.00	10,000.00
FORD	COURIER	Harts Range	649009	15,000.00	10,000.00	25,000.00
MITSUBISHI	FE637CV CANTER	Harts Range	720831	15,000.00	10,000.00	0.00
TOYOTA	HILUX	Harts Range	533281	10,000.00	5,000.00	0.00
INTER	ACCO 1930B TIP	Lajamanu	588837	10,000.00	10,000.00	0.00
TOYOTA	DYNA	Lajamanu	718619	5,000.00	5,000.00	0.00
TOYOTA	DYNA	Lajamanu	712086	5,000.00	5,000.00	0.00
TOYOTA	HIACE	Lajamanu	601843	15,000.00	10,000.00	0.00
TOYOTA	HILUX	Lajamanu	658965	5,000.00	5,000.00	0.00
TOYOTA	HILUX 145 SER	Lajamanu	643887	10,000.00	5,000.00	0.00
LANDROVER	DISCOVERY	Lajamanu	791839	5,000.00	5,000.00	0.00
FORD	ECONOVAN	Lajamanu	480381	5,000.00	5,000.00	0.00
FORD	TRANSIT VAN	Lajamanu	628070	10,000.00	10,000.00	0.00
MITSUBISHI	CANTER L	Lajamanu	619216	15,000.00	5,000.00	0.00
TOYOTA	COMMUTER	Laramba	720220	10,000.00	10,000.00	0.00
KIA	PREGIO	Ti-Tree	748758	15,000.00	10,000.00	0.00
NISSAN	XTRAIL	Ti-Tree	784701	20,000.00	15,000.00	0.00
NISSAN	NAVARA D22 P/UP	Ti-Tree	732682	15,000.00	5,000.00	0.00
NISSAN	CIVILIAN BUS	Ti-Tree	903543	15,000.00	10,000.00	0.00
TOYOTA	DYNA	Ti-Tree	499726	15,000.00	10,000.00	40,000.00
TOYOTA	COASTER BUS	Ti-Tree	594108	10,000.00	10,000.00	0.00
FORD	FALCON	Ti-Tree	639670	10,000.00	5,000.00	0.00
TOYOTA	COASTER	Willowra	784862	1,000.00	0.00	0.00
NISSAN	PATROL	Willowra	744320	20,000.00	15,000.00	25,000.00

MAZDA	T4000	Willowra		5,000.00	2,500.00	0.00
TOYOTA	LANDCRUISER	Yuelamu	748757	10,000.00	5,000.00	25,000.00
TOYOTA	HIACE COMMUTER	Yuelamu	748058	10,000.00	10,000.00	40,000.00
TOYOTA	DYNA	Yuelamu	520888	5,000.00	2,500.00	0.00
TOYOTA	HILUX DC	Yuendumu	903436	15,000.00	15,000.00	20,000.00
TOYOTA	HILUX	Yuendumu	939777	15,000.00	10,000.00	25,000.00
				326,000.00	**230,000.00**	**210,000.00**
PLANT						
POLARIS	SCRAMBLER	Harts Range	744948	5,000.00	2,500.00	0.00
FORD	A64	Nyirripi		25,000.00	25,000.00	0.00
JOHN DEERE	6359	Ti-Tree	SV2229	20,000.00	12,500.00	60,000.00
KUBOTA	M4030DT	Willowra	484051	10,000.00	5,000.00	30,000.00
DITCHWITCH	RT75 TRENCHER	Willowra		65,000.00	65,000.00	0.00
				125,000.00	**110,000.00**	**90,000.00**

These figures show a slightly cost positive result for 2009-10 in relation to plant and vehicle replacement but do not represent a long-term sustainable model given that only 8 of 22 vehicles are planned for replacement and 2 of 5 items of plant.

This list has not considered the implications of rationalising road maintenance equipment. This will be address at a later date in relation to the service delivery model for road maintenance.

7 KEY STRATEGIC POINTS

7.1 Dispose of surplus, inoperable and redundant plant

7.2 Minimise total items of plant and vehicles to optimise operational and financial efficiency.

7.3 Procure plant and vehicles to meet standard establishments

7.4 Shift towards standardisation of make and type.

7.5 Utilise more 2x4 vehicles for local running.

7.6 Purchase good quality second hand items where the operating environment accelerates depreciation.

7.7 Ensure agency and commercial services fully meet operational costs and depreciation costs as applicable.

7.8 Ensure adequate budget allocation to meet operational and replacement costs.

Timothy Day
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