

HEAVY PLANT REVIEW COMMITTEE

MINUTES

Section 5.9(2)(c) LGA 1995

The function of the Heavy Plant Committee is to review the 12 Year Plant Replacement Program annually prior to budget adoption and to make recommendations to the Council as to plant purchases to be funded.

Held in the Council Committee Room Lowood Road, Mount Barker WA 6324 at 1.00pm on Tuesday 23 February 2021

P3 Sleedy

PAUL SHEEDY
ACTING CHIEF EXECUTIVE OFFICER

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Presiding Member: Cr J Oldfield

Membership: Quorum (2)

Cr L Handasyde

Council Representative

Cr J Oldfield

Council Representative

Cr J Moir

Council Representative

Cr C Pavlovich

Council Representative

1 DECLARATION OF OPENING / ANNOUNCEMENT OF VISITORS

The presiding member, Cr Oldfield, declared the meeting open at 12.57pm

2 RECORD OF ATTENDANCE / APOLOGIES / LEAVE OF ABSENCE (PREVIOUSLY APPROVED)

Atter	ıdai	nce
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Cr L Handasyde
Cr J Oldfield
Cr J Moir
Cr C Pavlovich
Council Representative
Council Representative
Council Representative
Council Representative

Staff

Mr P Sheedy Acting Chief Executive Officer
Mr D Lynch Executive Manager Works and Services

Miss K Evans Administration Officer, Executive Services

Apologies

Nil

3 CONFIRMATION OF MINUTES

Moved Cr Handasyde, seconded Cr Moir that the Minutes of the Ordinary Meeting of the Heavy Plant Committee, held on 6 October 2020 as circulated, be taken as read and adopted as a correct record.

CARRIED

4 DISCLOSURES OF INTEREST

Part 5 Division 6 Local Government Act 1995

Nil

5 REPORTS OF COMMITTEE MEMBERS AND OFFICERS

5.1 HEAVY PLANT REPLACEMENT PROGRAM UPDATE

Report provided by David. See Attachment One.

5.2 MULCHING MACHINERY OPTIONS

File Ref:

N54359

Attachments:

Estimated Capital and Operating Cost

Schedule

Responsible Officer:

David Lynch

Executive Manager Works and Services

Author:

Nicole Selesnew

Project Officer

Proposed Meeting Date:

28 January 2020

PURPOSE

The purpose of this report is to review options for mulching and pruning.

BACKGROUND

The Council's roadside mulching and pruning program is completed by contractors. The Shire supplies traffic control for small mulching activities, however, for large programs such as the Porongurup Road and Carbarup Road mulching and pruning program, traffic control was incorporated into the contractor's costing.

STATUTORY ENVIRONMENT

Environmental Protection Act 1986

Environmental Protection (Clearing of Native Vegetation) Regulations 2004

EXTERNAL CONSULTATION

Consultation has taken place with representatives from the City of Albany regarding their mulching and pruning resources and methodology.

FINANCIAL IMPLICATIONS

The 2020/2021 Annual Budget includes a \$155,000.00 allocation for mulching and pruning activities.

BUDGET IMPLICATIONS

If an alternate method of roadside mulching and pruning was adopted, a budget allocation would be required to purchase new machinery and potential additional staff resources.

POLICY IMPLICATIONS

Policy I/RR/2 – Rural Road Verge Vegetation Management Policy applies.

STRATEGIC IMPLICATIONS

The Shire of Plantagenet Strategic Community Plan 2017–2026 provides at Outcome 4.1 (Effective governance and leadership) the following strategy:

Strategy 4.1.4:

'Support strategic alliances, stakeholder forums and advisory committees that assist Shire in policy development and service planning.'

OFFICER COMMENT

A series of reach mowers were reviewed for their pruning and mulching capabilities. The mowers are typically a maintenance machine, designed for materials less than 60mm in diameter.

The City of Albany runs two tractors, each fitted with a reach mower. In addition, one of the tractors is fitted with a slasher and the other is fitted with a fire fighting unit. Both tractors work in tandem with the following methodology:

- A two kilometre loop is programmed, less in heavier country;
- The first machine does a mulching cut, typically 0mm 900mm high (the width of the mulching head). The second tractor follows overlapping the first mulching cut to a small extent;
- The tractors continue moving around the programmed loop, repeating the mulching at heights of 1,800 2,700mm and 2,700 3,600mm;
- One tractor does a final loop, mulching at a height of 3,600 4,500mm;
- The second tractor follows with the slasher engaged, slashing debris on the ground as a cleanup; and
- A two-man crew follow with pole saws to clean up any ragged cuts or larger material.

The two mulching operators have a dedicated utility with tools and spare parts.

The estimated cost to resource this operation is as follows:

Resource	Amount	Cost per unit (\$)	Total cost (\$)
Massey 6613 Tractor	2	160,000.00	320,000.00
Noremat M61T Forestry Mulcher	2	110,000.00	220,000.00
Utility	1	45,000.00	45,000.00
Allowance for Tools	1	3,000.00	3,000.00
		Total	\$588,000.00

This cost does not include additional protection for the tractor, the slasher, fire fighting requirements or additional staff resources.

C&C Machinery has supplied two demonstration videos:

https://www.youtube.com/watch?v=TKptyMXrAH0

https://www.youtube.com/watch?v=oiDDWbDbXdo

The first video shows the unit cutting grass at a speed which is considerably less than the Shire's positrack mounted slasher. The second video shows the unit cutting off a small limb.

Another demonstration video has been sourced which shows a larger unit and tractor: https://www.youtube.com/watch?v=0gakOhiEAxE It is worth noting the size of the branches being mulching and the potential damage that can occur to the unit and tractor while mulching is taking place

The benefits of owning and operating a reach mulcher unit are as follows:

- It would be a useful machine for roads that have been mulched with an excavator in the past ten years, where sapling size is smaller and larger limbs are not present;
- Produces savings for roadside slashing on a line kilometer basis; and
- Increase the Shire's roadside maintenance to a higher standard.

The adverse comparison of owning and operating a reach mulcher includes:

- High cost of initial purchase;
- Estimates of cost per line kilometer are likely to be on the low side and do not account for breakdowns and other delays / stoppages (for example, staff leave and periods of inactivity due to Vehicle Movement Bans and Total Fire Bans);
- Machinery use will require dedicated staff member/s to operate. The City
 of Albany Supervisor stresses that it is critical for trained, experienced staff
 to operate the units given the risk to public and equipment damage;
- An additional one or two Full Time Equivalent roles will need to be created; and
- Even with a single mulching unit this would represent a significant increase in service levels (~>4% rate increase) which may not be required. In general, the Shire roadsides are being maintained moderately well.

Estimated capital and operating costs to operate a reach mulcher system are provided in Attachment Two.

The Shire's current method of operation is to use a contractor, with the Shire providing a single spotter for traffic control on minor or secondary roads. Distributor roads such as Carbarup and Porongurup Roads were let by contract and included traffic control.

The cost per line kilometre for minor and secondary roads averages \$1,500.00 to \$2,000.00. This is more expensive than the cost of operating a reach mulcher, however the end result is considerably neater.

Further, by using a contractor, the full corridor is mulched including to six metres in height which the boom mounted reach machines cannot achieve.

The excavator system can also address limbs up to 400mm without any significant drop in productivity.

The end mulching result from contractor's equipment is more professional and tends to smother regrowth for some years.

In the past three years the Shire has increased the roadside spraying program to include a mandatory spray of roads which have undergone mulching in the previous year. The spray is a combination of Metsulfuron and Glyphosate at a high rate. This has improved the mortality rates of regrowth.

A general observation is that the current program is satisfying the needs of the community and there is no appetite to increase the service levels.

VOTING REQUIREMENTS

Simple Majority

OFFICER RECOMMENDATION

That:

- 1. The cost to purchase and operate a reach mowing system be noted.
- 2. Further discussion take place with the Heavy Plant Review Committee regarding the cost benefit of a reach mulcher.

COMMITTEE DECISION

Moved Cr Moir, seconded Cr Pavlovich that:

- 1. The cost to purchase and operate a reach mowing system be noted.
- 2. Further discussion take place with the Heavy Plant Review Committee regarding the cost benefit of a reach mulcher.

Carried

6 NEXT MEETING

Date to be decided

7 MEETING CLOSURE

The presiding member, Cr Oldfield, declared the meeting closed at 1.39pm.

ATTACHMENT ONE

PLANT REPLACEMENT PROGRAM

Heavy Plant Review Committee Meeting - 23 February 2021 PLANT REPLACEMENT PROGRAM (DRAFT) - After November 2020 Policy Change

									2021 / 2022	2021 / 2022	2 2021 / 2022	2022 / 2023	2022 / 2023 202	22 / 2023 202	23 / 2024 202	23 / 2024 2023	2024 2024	4 / 2025 2024	12025 202412	025 2025 / :	2026 2025 / 202	6 2025 / 202	2026 / 2027	2026 / 2027	2026 / 2027	02712028	202712028 2	02/12028	202612025	020 / 2025	1020112020					
ant Rego nber Number	Description	Year of Manufacture	Km/hrs @ 2020	Km/hrs @ 2020	Work in one year	Asset	Yearly Depreciation	Comments	Gross	Income	Nett	Gross	Income	Nett (Gross li	ncome N	ett G	Gross Inc	come Net	Gro	oss Income	Nett	Gross	Income	Nett	Gross	Income	Nett	Gross	Income	Nett	Gross	Income	Nett	Gross	Income
PL02	CAT 12M Grader	2012	7,501	8,346	845	10949	12,245																			365,000	110,000	255,000								
PLO	CAT 12M Grader	2014	4,775	5,643	868	11140	14,148	Having issues with injectors																					365,000	110,000	255,000					
3 PL03	CAT 12M Grader	2010	8,013	8,450	437	10446	13,200			(100		100000								365	55,000 110,0	255,00	00								7. 400		Anne I			412-27-24
01 -	Bornag Waste Compactor (no replacement likely in this 10yr plan)	2013	10,633	10,696	63	10310	7,143				1 7		2.000										/							1						
	CAT 444F2 Backhoe	2016	1,537	1,793	256	11146	15,193								345,000	85,000 26	50,000	THE STATE OF THE S	200																	
	CAT 928H Loader (now 930H model)	2013	5,267	5,760	493	10422	12,245										NUCLSAN .		The same of the sa													250,000	100,000	150,000		
the second second second	CAT 924 Loader	2005	9,702	10,303	601	10329	5,500																			245,000	50,000	195,000								
	Bobcat S185 Skid Steer	2010	165	542	377	11193	1,978																									60,000	12,000	48,000		
	Kanga PW628 Loader	2018	86	119	33	11175	2,222															1				35,000	5000	30,000	- Call a movemb	omission						
	CAT 287B Skid Steer (O'Neill Road) (change to CAT226 equiv.)	2005	1,068	1,113		10314	2,000	0.01	65,000	15,00	50,000																7					- Complete Complete				
16	Bobcat Skid Steer T650	2018	443	776	333	11174	7,857	2/					in the same					65,000	15,000 50	,000					- /											
			705 (878)	784	206	11173	1,667						-					35,000	10,000 25	,000																
(2	Bobcat E20 Excavator	2018	569																							75,000	15,000	60,000								
	Isuzu FRR 107-210 Tipper (small)	2018	28,030	44,958	16,928	11178	2,333				-												145,000	25,000	120,000											
2 PL08	Isuzu FVR 1000 Tipper (Medium 4x2)	2021		4,289	4,289	10823	7,595	New vehicle 01/01/21						-								+	145,000													
	UD Condor Tipper (Medium 4 x 2)	2009	8,795	22,655	13,860	11190	9,975						25.000	400.000	4		_			-													-			
	Isuzu Truck NPR 300 Tipper (Small)	2011	143,247	149,816	6,569	10856	2,667		COLUMN TO SERVICE STATE OF THE PERSON NAMED IN COLUMN TO SERVICE STATE OF THE PERSON NAMED STATE OF THE PERSON NAMED STATE OF THE PERSON NAMED STATE OF THE PERSON NAM	RIGHT NAME OF THE PARTY NAME O		145,000	25,000	120,000			-			-			_			95,000	25,000	70,000				N. A.				
5 PL012	Baph (671 250/09) Crew Clap	2011	181,754	200,138	18,384	10866	4,070		145,000	35,00	110,000	0			-																E CA CARDONE					
PL029	Isuzu NPR 75-190	2020		2,748				New vehicle 01/08/20								Augmentury (ULT)							195,000	25,000	170,000								itte samme	dra (115) y y orre	10-50-50-50-50-50-50-50-50-50-50-50-50-50	
PL04	Hino Prime Mover 700 Series	2017	87,824	109,483	21,659	11158	8,235				1								3,000			-				-										
7 PL12460	Isuzu NPR 75-190 Tipper (P&G)	2016	47,866	58,580	10,714	11150	4,231							1								_	115,000	25,000	90,000											
30 PL013	Isuzu NPR 300 Tipper (Small)	2007	156,097	158,202	2,105	11197	5,215	Saleyards	145,000	35,00	110,000	0					_			-			de la companya del companya de la companya del companya de la comp			405.000	40.000	455.000								
31 PL06	Isuzu CXZ GIGA 455 Water Truck (Large 6x4)	2009	340,779	344,561	3,782	10745	7,400													100.00					on descriptions	195,000	40,000	155,000								
32 PL07	Isuzu CXZ GIGA 240-460 AMT Tipper (Large 6x4)	2018	44,493	61,000	16,507	11182	10,667	Currently in Perth for roll over repairs	r	estant and										19	195,000 40,	155,0				1910x - 1941	distribution of		1							
33 PL12848	Isuzu CXZ GIGA 240-460 Tipper (Large 6x4)	2019	21,795	43,734		11189	10,414		in discussion		en Amminuse						4			19	195,000 40,	155,0			and atom					in.			-	-		
R2 PL016	Bornag Vibe Roller - BW211D-4	2014	1,839	2,077	238	11141	4,615					165,000	20,000	145,000									155,00	20,000	135,000					- Vacable						
R3 PL6327	Bonne Road Broom Towed	2011	373	373	0	10865	500									Code 1000 1000		145,000	20,000 12	5,000														-		
C7 PL014	Toro GM360 4WD Mower with cab	2011	2,498	2,779	281	10867	1,750											62,500	10,000 5	2,500																
C8 PL015	Kubota Tractor	2007	3,231	3,294	63	10576	6,757	Section 1				95,000	25,000	70,000														-						-	/	
214	Total Reconsists 55 IR			3,534	3,534	11164	1,429			- An-													icas (constitution											_		
:15 -	Hustler HD Mower	2018		372	372	11181	1,067		15,000	0 2,50	00 12,50	10						15,000	2,500	2,500					CAMPAN	15,000	2,500	12,500	-							
7 PL11896	4 x 4 Spray Unit Gator (P&G)	2013	1,131	1,382	251	10958	1,250	Boulet St. 188	22,50	5,00	00 17,50	10						Starten 13"																-		-
ин -	SMG 1400 Maintenance Turf Groomer (Hockey)	2015		P. T. W. T.		11148	325																							200			-			
L1 PL008	Nissan Forklift	2000	3,704	3,803	99	10573	2,162								27,500	5,000	22,500																			
	Evertrans Tri-axle Low Loader (float)	2009				10765	4,500										Company	TARREST TO THE		1	135,000 15	,000 120,	,000												is a second second	
	Evertrans Plant Trailer (small float)	1997				10313	0														45,000	0 45,	,000										1			1
	Evertrans Semi Trailer - end tipper *	2002				10318	2,000																													
	Evertrans Tandem Skid Steer Trailer (mtce crew)	2011				10849	308				7													land the same of t												
	Evertrans Side Tipper (pig)	2008				10737	2,000		55,00	0	0 55,00	00																								1
	Evertrans Side Trailer (pig)	2009				10746	1,500								55,000	0	55,000																			
	Lombardi Tri-Axle Side Tipper *	2016				11159	4,118		Section and the section of the secti	-	10	-							7								,				an languaran		-			
		2016				11165	2,857			-			-			1																				
L8 PL6777	Evertrans Skel Trailer with Hook Lift Unit *	2017	September 1	-		11103	2,031		State of the state		· Investment				and the same	Carpermenter !	-	A TABLE OF THE PARTY OF THE PAR	Lawrench was been		and the same	and the same	-	-			-	-		C 40369	- NO. 100 LAN			198,000	10 (0

2,190,120 2,740,120 2,542,120 1,895,120 2,445,120 2,122,620 2,672,620 1,890,120 2,440,120 2,387,620 2,937,620 2,102,620 2,652,620 1,675,120 2,225,120 2,542,120 1,895,120 2,445,120 2,190,120 2,740,120 2,122,620 2,672,620 2,207,620 2,757,620 1,890,120 2,440,120 2,102,620 2,652,620 1,675,120 2,225,120 2,030,120

Capital and Operating Cost Estimate - Reach Mulcher System

1 Unit only - Capital

Resource	Amount		Purc	hase Cost	Total			
Massey 6613 Tractor	-	1	\$	160,000	\$ 160,000			
Noremat Forestry Mulcher		1	\$	110,000	\$ 110,000			
Utility		1	\$	45,000	\$ 45,000			
Allowance for tools		1	\$	3,000	\$ 3,000			
Total			*******		\$318,000			

1 Unit only - Operating

Operating component	hrs	\$/hr	Total	
Annual Labour cost			\$151,250	\$55K + 175% overhead
Annual Cost - Tractor	1,728	\$ 37.00	\$63,936	Based on City of Albany rate - \$37/hr
Annual Cost Mower	1,728	\$ 40.00	\$69,120	Based on City of Albany rate - \$40/hr
Total			\$284,306	

1 Unit - Annualised Costs										Year		1,4	***************************************								Average	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Capital	\$318,000										\$318,000											ĺ
Annual Costs	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306		i
Total	\$602,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$602,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306	\$284,306		1
Cost per operating hour	\$348.56	\$164.53		\$164.53		\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$348.56	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$182.93	Assumed 1728 hrs per annum
Av. Cost per operating hour	\$182.93											W.										l
Est. Cost per lin.km	\$1,176.38	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$1,176.38	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$617.39	Assumed 2 lane km per day average
Av. Cost per lin.km.	\$617.39																					

2 Units - Capital

Resource	Amount		Purc	hase Cost	Total
Massey 6613 Tractor		2	\$	160,000	\$ 320,000
Noremat Forestry Mulcher		2	\$	110,000	\$ 220,000
Slasher		1	\$	30,000	\$ 30,000
Utility		1	\$	45,000	\$ 45,000
Allowance for tools		1	\$	3,000	\$ 3,000
Total					\$618,000

2 Units - Operating

Operating component	hrs	\$/hr	Total	
Annual Labour cost	2	\$151,250	\$302,500	\$55K + 175% overhead
Annual Cost - Tractor	3456	37	\$127,872	Based on City of Albany rate - \$37/h
Annual Cost Mower	3456	40	\$138,240	Based on City of Albany rate - \$40/h
Total			\$568,612	

	\$568,

2 Units - Annualised Costs		Year																Average			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Capital	\$618,000										\$618,000										
Annual Costs	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	
	\$1,186,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$1,186,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	\$568,612	
Cost per operating hour	\$343.35	\$164.53		\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$343.35	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$164.53	\$182.41
Av. Cost per operating hour	\$182.41	` '																			
Est. Cost per lin.km	\$1,158.80	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$1,158.80	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$555.29	\$615.64
Av. Cost per lin.km.	\$615.64		•				,														