Targeted Fauna Assessment

Proposed Clearing Area

Pile Road

(SLK 0.00 and SLK 4.21)

Shire of Dardanup

October 2019

Version 1

On behalf of:
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1. INTRODUCTION

This report details the results of a targeted fauna assessment carried out over a section Pile Road in the Shire of Dardanup (the Shire) between SLK 0.00 and approximately SLK 4.21.

The Shire is planning to upgrade the condition of the road in the near future and the removal of some existing roadside trees will be required. So as to comply with native vegetation clearing regulations the Shire will be applying for a clearing permit from the Department of Water and Environmental Regulation (DWER). The information in this report has been gathered to assist DWER in assessing the application.

An initial inspection of the proposed clearing area was undertaken by Jackie Nichol (Senior Environmental Officer – Shire of Dardanup) in 22 August 2019. This survey identified the presence of 98 trees/saplings of various species and sizes that will require removal.

At the time none of the trees/saplings were identified as containing hollows suitable for black cockatoos. To confirm their status and to allow for completion of this report a follow up inspection was carried out on the 30 September 2019 by Jackie Nichols and Greg Harewood (consultant Zoologist).

As sections of the road contains habitat which appears suitable for western ringtail possums (*Pseudocheirus occidentalis*) an initial daytime survey for evidence of this species was also carried out concurrent with the follow up tree assessment undertaken on the 30 September 2019. An additional daytime survey looking for evidence of western ringtail possums (WRP) was undertaken by Greg Harewood on the 6 October 2019 followed by two nocturnal surveys carried out on the 6 and 8 October 2019 respectively.

2. SCOPE OF WORKS

The scope of works was defined as:

- Re-examine the 98 trees/saplings that fall within the works footprint and determine if any contain hollows or possible hollows suitable or potentially suitable for black cockatoos to use for nesting purposes.
- Carry out a targeted day and night surveys for western ringtail possums and their habitat along Pile Road between SLK 0.00 and SLK 4.21.

3. METHODS

3.1 HABITAT TREE REVIEW

All the trees/saplings identified during the initial site inspection by the Shire were re-assessed for the presence of hollows or possible hollows. Each tree was examined in detail from ground level with the primary aim of identifying any large or potentially large hollows suitable or possibly suitable for black cockatoos to use for nesting purposes. Where considered necessary this included the close inspection of larger trees with binoculars. A drone (DJI Mavic Air) was available to assess hollows (if any) that required closer inspection.

3.2 WESTERN RINGTAIL POSSUM SURVEY

Day time surveys along the road were carried on foot with the aim of locating and recording any evidence of western ringtail possums, including dreys, scats and individuals. Two night time spotlight surveys along the road while walking using a LED head torch were also carried out to locate and record individual WRPs.

4. RESULTS

4.1 HABITAT TREE REVIEW

As previously indicated the proposed works footprint contains 98 trees/saplings of various species and sizes, details of which can be found in Appendix A. The location of each tree is shown in Figure 1.

Only four of the trees within the works footprint have a diameter at breast height of greater than or equal to 50cm, all of which were marri. None of these trees or the smaller trees/saplings were identified as containing hollows of any size.

The majority of the trees/saplings were peppermint (43) with the next most common species being marri (32). The balance of the plant species were made up of small numbers of jarrah (8), flooded gum (3) and a range of other species (12).

4.2 WESTERN RINGTAIL POSSUM SURVEY

The location of WRP observations made during the field surveys are shown in Figure 2.

Ten WRP dreys were observed during the day surveys. All the dreys were observed with peppermint trees between SLK 0.7 and SLK 1.3. None of the peppermint trees containing dreys fall within the proposed works footprint.

Eight WRPs were observed during the first night survey and eleven during the second night survey. As with the drey observations, records were made between about SLK 0.7 and SLK 1.3 which contains the densest vegetation along the entire project area.

Given the absence of trees containing hollows within the project footprint it is considered highly likely that most, if not all the WRPs observed along the road verge are utilising dreys for daytime refuge. As indicated none of the identified dreys are located within trees that fall within the works footprint.

5. CONCLUSION

The assessment reported on here was primarily undertaken to identify any trees with existing hollows suitable or potentially for black cockatoos to use for nesting and to determine the distribution and abundance of western ringtail possums along the road verge.

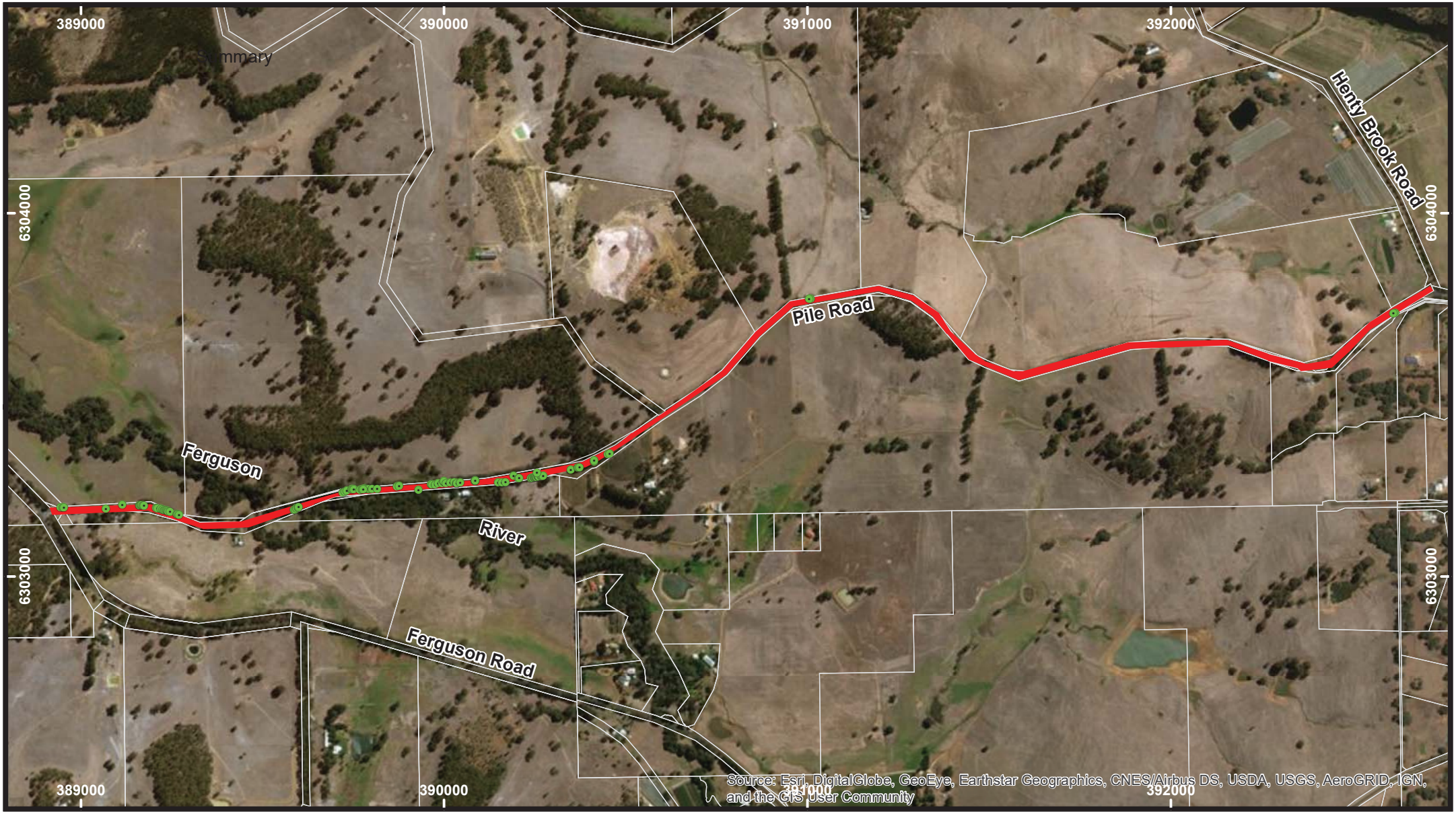
No trees within the proposed works footprint were observed to contain hollows suitable for black cockatoos. Given this fact it is the Authors opinion that the removal of these trees will therefore have no direct impact on any of the three species known to frequent the general area.

The presence of western ringtail possums within vegetation bordering sections of Pile Road was confirmed. The daytime survey identified dreys, used by WRPs for daytime refuge, within trees along the verge however none were at the time of the survey within trees that fall within the proposed works footprint. The majority of the vegetation along the road is to be retained and this couple with the fact that suitable habitat for WRPs also exists in private property either side of the road reserve at this location it is the Authors opinion that the removal of trees from the works footprint will not significantly impact on WRPs currently inhabiting the area. The vast majority of trees to removed are relatively small and therefore do not contribute to the habitat value to the point where their removal will compromise is current function as WRP habitat.

Subject to the clearing permit being approved it is recommended that a condition be imposed with the permit that requires a suitably qualified fauna specialist be in attendance when clearing is undertaken to inspect trees prior to clearing to minimise impacts on WRPs.

This report should be forwarded to DWER for their consideration.

FIGURES



Legend

- Survey Area
- Tree or Sapling - No Hollows Observed

0 250 500 750 1,000

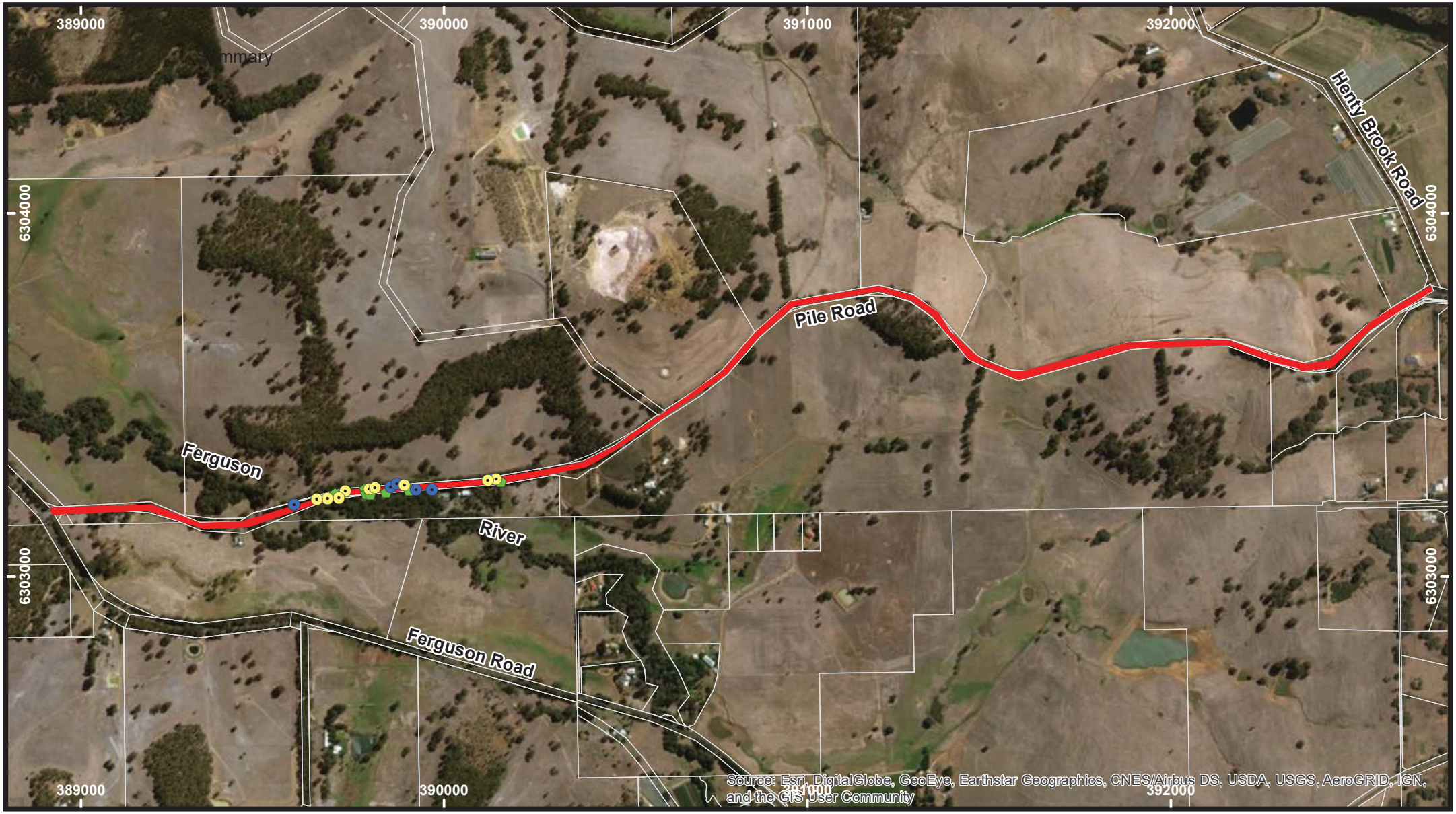
Metres

Fauna Survey

Shire of Dardanup
Pile Road
SLK 0.00 - SLK 4.21

Trees & Saplings Clearing Area

Drawn: G Harewood
Date: Oct 2019
Scale: 1:14,000
Projection/Coordinate System: UTM/MGA Zone 50
Figure: 1



Legend

- Survey Area
- WRP Dreys
- WRP - Night 1 (8)
- WRP - Night 2 (11)

0 250 500 750 1,000

Metres

Fauna Survey

Drawn: G Harewood

Date: Oct 2019

Scale: 1:14,000

Projection/Coordinate System: UTM/MGA Zone 50

Figure: 2

Shire of Dardanup
Pile Road
SLK 0.00 - SLK 4.21

Possum Observations

APPENDIX A

TREE DETAILS

Trees and saplings within propsoed clearing area

Date of Assessment	Tree number	Side of Road (looking East)	MGA Zone	mE	mN	Species	Taxa	Circumference (cm)	DBH (cm)	Height (m)	Health	Comments
22-08-2019	1	LHS	50	388945	6303189	Marri	Corymbia calophylla	400	>50	12	Otherwise	Multistem. bark damaged at base.
22-08-2019	2	LHS	50	388951	6303190	Marri	Corymbia calophylla	60	<50	6	some canker	
22-08-2019	3	LHS	50	388954	6303190	Marri	Corymbia calophylla	20	<50	5	good	
22-08-2019	4	RHS	50	389069	6303185	Flooded Gum	Eucalyptus rudis	80	<50	3	good	multi stem
22-08-2019	5	LHS	50	389113	6303198	Peppermint	Agonis flexuosa	25	<50	3	good	multi stem
22-08-2019	6	LHS	50	389161	6303196	Peppermint	Agonis flexuosa	20	<50	1	good	
22-08-2019	7	LHS	50	389163	6303195	Peppermint	Agonis flexuosa	20	<50	3.5	good	
22-08-2019	8	LHS	50	389165	6303196	Peppermint	Agonis flexuosa	20	<50	4.5	good	
22-08-2019	9	LHS	50	389168	6303196	Jarrah	Eucalyptus marginata	20	<50	3	good	
22-08-2019	10	LHS	50	389170	6303195	Peppermint	Agonis flexuosa	20	<50	2	good	
22-08-2019	11	LHS	50	389174	6303194	Peppermint	Agonis flexuosa	20	<50	2.5	good	
22-08-2019	12	LHS	50	389208	6303188	Peppermint	Agonis flexuosa	20	<50	2	good	
22-08-2019	13	LHS	50	389211	6303187	Peppermint	Agonis flexuosa	20	<50	1.5	good	
22-08-2019	14	LHS	50	389221	6303185	Peppermint	Agonis flexuosa	20	<50	3	good	muli stem
22-08-2019	15	LHS	50	389225	6303184	Peppermint	Agonis flexuosa	10	<50	1	good	Understory Acacia pulchella thicket
22-08-2019	16	LHS	50	389229	6303182	Peppermint	Agonis flexuosa	10	<50	1	good	Understory Acacia pulchella thicket
22-08-2019	17	LHS	50	389232	6303182	Peppermint	Agonis flexuosa	10	<50	1	good	Understory Acacia pulchella thicket
22-08-2019	18	LHS	50	389236	6303181	Peppermint	Agonis flexuosa	10	<50	1	good	Understory Acacia pulchella thicket
22-08-2019	19	LHS	50	389238	6303180	Peppermint	Agonis flexuosa	10	<50	1	good	Multistem. Understory Acacia pulchella thicket
22-08-2019	20	LHS	50	389241	6303179	Peppermint	Agonis flexuosa	10	<50	1	good	Understory Acacia pulchella thicket
22-08-2019	21	LHS	50	389245	6303177	Peppermint	Agonis flexuosa	10	<50	1	good	Understory Acacia pulchella thicket
22-08-2019	22	LHS	50	389264	6303171	Peppermint	Agonis flexuosa	10	<50	1	good	no understory
22-08-2019	23	LHS	50	389267	6303171	Peppermint	Agonis flexuosa	10	<50	1	good	no understory
22-08-2019	24	LHS	50	389271	6303169	Peppermint	Agonis flexuosa	10	<50	1	good	no understory
22-08-2019	25	RHS	50	389587	6303183	Peppermint	Agonis flexuosa	60	<50	8	good	tall healthy tree
22-08-2019	26	RHS	50	389590	6303185	Peppermint	Agonis flexuosa	20	<50	11	good	tall healthy tree
22-08-2019	27	RHS	50	389594	6303188	Peppermint	Agonis flexuosa	20	<50	4	good	healthy
22-08-2019	28	RHS	50	389599	6303189	Flooded Gum	Eucalyptus rudis	50	<50	13	1 branch dead	lerps, some damge
22-08-2019	29	RHS	50	389601	6303190	Peppermint	Agonis flexuosa	40	<50	5	broken at base	multi stem
22-08-2019	30	LHS	50	389721	6303231	Peppermint	Agonis flexuosa	40	<50	6	ok	leaves look like being eaten
22-08-2019	31	LHS	50	389727	6303234	Peppermint	Agonis flexuosa	20	<50	12	ok	covered in lichen
22-08-2019	32	LHS	50	389733	6303235	Peppermint	Agonis flexuosa	10	<50	1.5	good	no understory
22-08-2019	33	LHS	50	389746	6303239	Peppermint	Agonis flexuosa	10	<50	1	good	no understory
22-08-2019	34	LHS	50	389748	6303239	Peppermint	Agonis flexuosa	10	<50	1	good	no understory
22-08-2019	35	LHS	50	389752	6303239	Peppermint	Agonis flexuosa	10	<50	1	good	no understory
22-08-2019	37	LHS	50	389783	6303242	Peppermint	Agonis flexuosa	20	<50	6	good	
22-08-2019	38	LHS	50	389783	6303242	Peppermint	Agonis flexuosa	20	<50	5	good	
22-08-2019	39	LHS	50	389786	6303240	Peppermint	Agonis flexuosa	20	<50	3	ok	broken
22-08-2019	40	LHS	50	389790	6303240	Peppermint	Agonis flexuosa	20	<50	2	good	
22-08-2019	41	LHS	50	389793	6303240	Peppermint	Agonis flexuosa	20	<50	2.5	good	
22-08-2019	42		50	389802	6303241	Marri	Corymbia calophylla	40	<50	8	ok	canker no hollows , leaning towards road
22-08-2019	43	LHS	50	389816	6303240	Marri	Corymbia calophylla	20	<50	2	good	
22-08-2019	44	LHS	50	389871	6303247	Flooded Gum	Eucalyptus rudis	120	<50	14	good	flowering now (August)
22-08-2019	45	LHS	50	389876	6303248	Peppermint	Agonis flexuosa	20	<50	6	Dead	
22-08-2019	46	RHS	50	389930	6303238	Sheoak	Alocasuarina spp	40	<50	15	good	
22-08-2019	47	LHS	50	389964	6303253	Marri	Corymbia calophylla	170	>50	20+		very big tree
22-08-2019	48	LHS	50	389968	6303252	Marri	Corymbia calophylla	10	<50	2	good	
22-08-2019	49	LHS	50	389976	6303252	Marri	Corymbia calophylla	20	<50	9	good	
22-08-2019	50	LHS	50	389984	6303255	Marri	Corymbia calophylla	200	>50	20	ok	very big tree
22-08-2019	51	LHS	50	389994	6303256	Marri	Corymbia calophylla	25	<50	8	Dead	
22-08-2019	52	LHS	50	389999	6303262	Marri	Corymbia calophylla	200	>50	20+	ok	very big tree
22-08-2019	53	LHS	50	389999	6303262	Peppermint	Agonis flexuosa	20	<50	4	ok	
22-08-2019	54	LHS	50	390006	6303257	Jarrah	Eucalyptus marginata	25	<50	4	ok	
22-08-2019	55	LHS	50	390018	6303258	Marri	Corymbia calophylla	100	<50	10	very good	no canker
22-08-2019	56	LHS	50	390028	6303259	Marri	Corymbia calophylla	100	<50	10	good	no canker
22-08-2019	57	LHS	50	390035	6303257	Marri	Corymbia calophylla	10	<50	1.5	ok	small, wrappd around larger tree behind it- might be same stem- so need to take care when removing as may damage main tree
22-08-2019	58	LHS	50	390035	6303257	Marri	Corymbia calophylla	10	<50	1.5	ok	small, wrappd around larger tree behind it- might be same stem- so need to take care when removing as may damage main tree
22-08-2019	59	LHS	50	390035	6303257	Marri	Corymbia calophylla	25	<50	9	ok	
22-08-2019	60	LHS	50	390045	6303258	Marri	Corymbia calophylla	40	<50	15	good	
22-08-2019	61	LHS	50	390085	6303263	Marri	Corymbia calophylla		<50	15	no	full of canker
22-08-2019	62	LHS	50	390086	6303263	Peppermint	Agonis flexuosa	20	<50	4	good	split stem
22-08-2019	63	LHS	50	390086	6303264	Peppermint	Agonis flexuosa	10	<50	1	good	
22-08-2019	64	RHS	50	390149	6303258	Peppermint	Agonis flexuosa	10	<50	1	good	
22-08-2019	65	RHS	50	390159	6303258	Marri	Corymbia calophylla	20	<50	6	good	
22-08-2019	66	RHS	50	390169	6303259	Jarrah	Eucalyptus marginata	10	<50	2	good	
22-08-2019	67	LHS	50	390192	6303277	Jarrah	Eucalyptus marginata	10	<50	4	good	
22-08-2019	68	RHS	50	390204	6303269	Peppermint	Agonis flexuosa	10	<50	3	good	
22-08-2019	69	RHS	50	390207	6303269	Marri	Corymbia calophylla	15	<50	8	good	
22-08-2019	70	RHS	50	390239	6303270	Non-endemic acacia	Acacia spp.	10	<50	3	good	muliple stem

Date of Assessment	Tree number	Side of Road (looking East)	MGA Zone	mE	mN	Species	Taxa	Circumference (cm)	DBH (cm)	Height (m)	Health	Comments
22-08-2019	71	RHS	50	390242	6303272	Non-endemic acacia	Acacia spp.	10	<50	3	good	muliple stem
22-08-2019	72	RHS	50	390245	6303271	Non-endemic eucalypt	Eucalyptus rudis	150	<50	15	good	white stem, mottled bark.
22-08-2019	73	RHS	50	390248	6303273	Non-endemic eucalypt	Eucalyptus rudis	100	<50	15	good	white stem, mottled bark.
22-08-2019	74	RHS	50	390250	6303274	Jarrah	Eucalyptus marginata	15	<50	3	good	
22-08-2019	75	RHS	50	390252	6303274	Jarrah	Eucalyptus marginata	15	<50	3	good	
22-08-2019	76	RHS	50	390254	6303274	Jarrah	Eucalyptus marginata	150	<50	12	good	double stem
22-08-2019	77	RHS	50	390256	6303273	Marri	Corymbia calophylla	15	<50	2.5		
22-08-2019	78	RHS	50	390258	6303275	Marri	Corymbia calophylla	40	<50	14	very good	no canker
22-08-2019	79	RHS	50	390260	6303275	Dead	Unknown	30	<50	1		Dead
22-08-2019	80	RHS	50	390262	6303275	Marri	Corymbia calophylla	40	<50	13	good	no canker
22-08-2019	81	RHS	50	390268	6303276	Marri	Corymbia calophylla	40	<50	13	ok	
22-08-2019	82	RHS	50	390270	6303276	Marri	Corymbia calophylla	40	<50	2	ok	
22-08-2019	83	RHS	50	390273	6303277	Marri	Corymbia calophylla	10	<50	2	ok	has double stem
22-08-2019	84	LHS	50	390255	6303286	Non-endemic acacia	Acacia spp.	10	<50	2.5	good	
22-08-2019	85	RHS	50	390349	6303294	Marri	Corymbia calophylla	15	<50	3	good	has double stem
22-08-2019	86	RHS	50	390368	6303298	Unidentified shrub	Unknown	10	<50	0.5	dead	other understory species includes lomandra and introduced assorted grasses
22-08-2019	87	RHS	50	390370	6303300	Unidentified shrub	Unknown	10	<50	0.5	dead	other understory species includes lomandra and introduced assorted grasses
22-08-2019	88	RHS	50	390373	6303300	Unidentified shrub	Unknown	10	<50	0.5	good	other understory species includes lomandra and introduced assorted grasses
22-08-2019	89	RHS	50	390414	6303316	Unidentified shrub	Unknown	10	<50	0.5	good	other understory species includes lomandra and introduced assorted grasses
22-08-2019	90	RHS	50	390413	6303319	Unidentified shrub	Unknown	10	<50	1.5	good	
22-08-2019	91	RHS	50	390452	6303336	Marri	Corymbia calophylla	40	<50	5	ok	leaning sideways, has falen but still growing
22-08-2019	92	RHS	50	390456	6303337	Marri	Corymbia calophylla	40	<50	10	dead	stump no habitat
22-08-2019	93	LHS	50	391009	6303764	Jarrah	Eucalyptus marginata	50	<50	12	very good	
22-08-2019	94	LHS	50	391005	6303764	Marri	Corymbia calophylla	40	<50	10	good	
22-08-2019	95	RHS	50	392618	6303726	Marri	Corymbia calophylla	50	<50	10		no canker
22-08-2019	96	RHS	50	392614	6303724	Marri	Corymbia calophylla	50	<50	12		canker no hollows
22-08-2019	36a	LHS	50	389768	6303238	Peppermint	Agonis flexuosa	10	<50	0.5-1	good	36a-c are 14 very small peppermint, no higher than 1m , no wider than 10cm . Distance these are covered over is 7m starting point
22-08-2019	36b	LHS	50	389774	6303239	Peppermint	Agonis flexuosa	10	<50	0.5-2	good	36a-c are 14 very small peppermint, no higher than 1m , no wider than 10cm . Distance these are covered over is 7m . Middle point
22-08-2019	36c	LHS	50	389778	6303239	Peppermint	Agonis flexuosa	10	<50	0.5-3	good	36a-c are 14 very small peppermint, no higher than 1m , no wider than 10cm . Distance these are covered over is 7m End point

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This fauna assessment report ("the report") has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Greg Harewood ("the Author"). In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints. In accordance with the scope of services, the Author has relied upon the data and has conducted environmental field monitoring and/or testing in the preparation of the report. The nature and extent of monitoring and/or testing conducted is described in the report.

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