

Appendix 2 **Flora survey site descriptions**

Site details			
Site	PR01	Position (WGS84)	-31.292634, 119.511501
Slope	negligible	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (18 Nov 2019)			
Sample description	Scattered <i>Eucalyptus pileata</i> over tall shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> and <i>A. corniculata</i> over shrubland of <i>Phebalium drummondii</i> and <i>P. tuberculosum</i> .		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	70	Tree cover (%)	5
Shrub cover (%)	70	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	18-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (22)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		35	2		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		20	1.6		
<i>Thryptomene kochii</i>		12.5	1.2		
<i>Phebalium drummondii</i>	P3 (DBCA list)	10	0.5		
<i>Melaleuca hamata</i>		5	2		
<i>Allocasuarina corniculata</i>		5	1.8		
<i>Hibbertia eatoniae</i>		4	0.4		
<i>Hakea multilineata</i>		1	3		
<i>Phebalium tuberculosum</i>		1	0.5		
<i>Drummondita hassellii</i>		1	0.4		
<i>Grevillea paradoxa</i>		0.5	1		
<i>Melaleuca cordata</i>		0.5	0.7		
<i>Melaleuca eleuterostachya</i>		0.1	2		
<i>Acacia acuminata</i>		0.1	2		
<i>Leptomeria preissiana</i>		0.1	1.5		
<i>Thysanotus manglesianus</i>		0.1	0.6		
<i>Callitris preissii</i>		0.1	0.5		
<i>Schoenus hexandrus</i>		0.1	0.2		
<i>Eucalyptus pileata</i>				4	4.5
<i>Calothamnus gilesii</i>				0.1	1.2
<i>Baeckea elderiana</i>				0.5	1
<i>Persoonia saundersiana</i>				0.1	0.6

Site details			
Site	PR02	Position (WGS84)	-30.946493, 119.512195
Slope	gentle	Topography	plain
Soil colour	grey, whitish	Soil texture	clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Low shrubland of <i>Tecticornia doliiformis</i> , <i>T. peltata</i> and <i>T. sp.</i> Dennys Crossing (K.A. Shepherd & J. English KS 552).		
Habitat	chenopod shrubland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	65	Tree cover (%)	0
Shrub cover (%)	65	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

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Species (11)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Tecticornia doliiformis</i>		25	0.3		
<i>Tecticornia</i> sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)		12.5	0.2		
<i>Tecticornia peltata</i>		12.5	0.2		
<i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>		10	0.05		
<i>Frankenia cinerea</i>		0.1	0.1		
<i>Didymanthus roei</i>		0.1	0.1		
* <i>Mesembryanthemum nodiflorum</i>	Weed	0.1	0.03		
<i>Pogonolepis stricta</i>		0.1	0.02		
<i>Eragrostis dielsii</i>		0.1	0.02		
<i>Sarcozona praecox</i>				0.1	0.15
<i>Maireana amoena</i>				0.1	0.1

Site details			
Site	PR03	Position (WGS84)	-31.04569, 119.50446
Slope	gentle	Topography	undulating plain
Soil colour	whitish	Soil texture	clay
Rock cover (%)	0	Rock type	calcrete

Observation details - visit 1 (16 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus capillosa</i> and <i>E. celastroides</i> subsp. <i>celastroides</i> over shrubland of <i>Exocarpos aphyllus</i> and <i>Alyxia buxifolia</i> .		
Habitat	woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	30
Shrub cover (%)	25	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

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Species (29)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus capillosa</i>		20	20		
<i>Eucalyptus celastroides</i> subsp. <i>celastroides</i>		8	7		
<i>Exocarpos aphyllus</i>		2	4		
<i>Alyxia buxifolia</i>		2	1.8		
<i>Erymophyllum ramosum</i> subsp. <i>ramosum</i>		2	0.05		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		1	6		
<i>Acacia erinacea</i>		1	0.4		
<i>Olearia muelleri</i>		1	0.3		
* <i>Mesembryanthemum nodiflorum</i>	Weed	1	0.05		
<i>Dodonaea inaequifolia</i>		0.1	1		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>		0.1	0.5		
<i>Rytidosperma setaceum</i>		0.1	0.4		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Scaevola spinescens</i>		0.1	0.4		
<i>Maireana carnososa</i>		0.1	0.1		
<i>Sclerolaena diacantha</i>		0.1	0.1		
<i>Pogonolepis stricta</i>		0.1	0.1		
<i>Calocephalus multiflorus</i>		0.1	0.05		
<i>Podolepis capillaris</i>				0.2	0.1
<i>Pterostylis roensis</i>				0.1	0.1
<i>Sclerolaena fusiformis</i>				0.1	0.1
<i>Calandrinia</i> sp.				0.1	0.1
<i>Maireana georgei</i>				0.1	0.1
<i>Atriplex vesicaria</i>				0.1	0.1
<i>Arthropodium dyeri</i>				0.1	0.1
<i>Rhagodia drummondii</i>				0.1	0.2
<i>Maireana trichoptera</i>				0.1	0.1
<i>Acacia andrewsii</i>				0.1	1.1
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>				0.1	0.1

Site details			
Site	PR04	Position (WGS84)	-31.052183, 119.504803
Slope	negligible	Topography	plain
Soil colour	brown, whitish	Soil texture	sandy loam
Rock cover (%)	0	Rock type	calcrete

Observation details - visit 1 (16 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus capillosa</i> over sparse shrubland of <i>Alyxia buxiflora</i> and <i>Westringia cephalantha</i> .		
Habitat	woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	35
Shrub cover (%)	5	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (14)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus capillosa</i>		35	20		
<i>Westringia cephalantha</i>		2.5	1.5		
<i>Alyxia buxifolia</i>		1	1.75		
<i>Scaevola spinescens</i>		0.5	0.3		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		0.1	1		
<i>Acacia andrewsii</i>		0.1	1		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>		0.1	0.5		
<i>Xerolirion divaricata</i>		0.1	0.2		
<i>Olearia muelleri</i>		0.1	0.2		
<i>Acacia erinacea</i>		0.1	0.2		
<i>Phebalium megaphyllum</i>				0.1	0.7
<i>Daviesia nematophylla</i>				0.1	1.2
<i>Austrostipa platychaeta</i>				0.1	0.15
<i>Acacia merrallii</i>				0.1	0.2

Site details			
Site	PR05	Position (WGS84)	-31.089721, 119.504366
Slope	gentle	Topography	plain
Soil colour	whitish	Soil texture	loam
Rock cover (%)	1	Rock type	quartz

Observation details - visit 1 (17 Nov 2019)			
Sample description	Open woodland <i>Eucalyptus capillosa</i> over open shrubland of <i>Exocarpos aphyllus</i> , <i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i> , and <i>Scaevola spinescens</i> .		
Habitat	woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	40
Shrub cover (%)	5	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	17-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (25)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus capillosa</i>		35	20		
<i>Exocarpos aphyllus</i>		2	2.5		
<i>Scaevola spinescens</i>		2	0.5		
<i>Erymophyllum ramosum</i> subsp. <i>ramosum</i>		2	0.05		
<i>Eucalyptus celastroides</i> subsp. <i>celastroides</i>		1	5		
<i>Templetonia ceracea</i>		1	0.4		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>		0.5	2		
<i>Santalum acuminatum</i>		0.1	2.3		
<i>Daviesia nematophylla</i>		0.1	1		
<i>Eremophila ionantha</i>		0.1	0.9		
<i>Acacia merrallii</i>		0.1	0.4		
<i>Olearia muelleri</i>		0.1	0.4		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Rytidosperma setaceum</i>		0.1	0.3		
<i>Acacia erinacea</i>		0.1	0.3		
<i>Austrostipa scabra</i>		0.1	0.3		
<i>Atriplex vesicaria</i>		0.1	0.2		
<i>Sclerolaena fusiformis</i>		0.1	0.1		
* <i>Mesembryanthemum nodiflorum</i>	Weed	0.1	0.05		
<i>Sclerolaena diacantha</i>		0.1	0.05		
<i>Wilsonia humilis</i>		0.1	0.05		
<i>Pogonolepis stricta</i>		0.1	0.05		
<i>Alyxia buxifolia</i>		0	1.5		
<i>Rhagodia drummondii</i>				0.1	0.4
<i>Eremophila scoparia</i>				0.2	0.4

Site details			
Site	PR06	Position (WGS84)	-30.975587, 119.503846
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (18 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus salubris</i> and <i>E. yilgarnensis</i> over an open shrubland of <i>Olearia muelleri</i> and <i>Acacia nyssophylla</i> .		
Habitat	woodland		
Disturbance	vehicle tracks,		
Vegetation condition	Excellent	Fire age	not recorded
Total veg. cover (%)	40	Tree cover (%)	40
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	18-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Species (25)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		15	15		
<i>Eucalyptus yilgarnensis</i>		15	12		
<i>Olearia muelleri</i>		5	0.4		
<i>Acacia nyssophylla</i>		3	0.5		
<i>Templetonia ceracea</i>		1	1.9		
<i>Maireana carnosae</i>		0.5	0.05		
<i>Scaevola spinescens</i>		0.1	0.6		
<i>Exocarpos aphyllus</i>		0.1	0.5		
<i>Austrostipa platychaeta</i>		0.1	0.5		
<i>Atriplex vesicaria</i>		0.1	0.4		
<i>Austrostipa nodosa</i>		0.1	0.4		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		0.1	0.3		
<i>Maireana georgei</i>		0.1	0.2		
<i>Aristida contorta</i>		0.1	0.2		
<i>Senna artemisioides</i> subsp. <i>x artemisioides</i>		0.1	0.2		
<i>Maireana thesioides</i>		0.1	0.15		
<i>Sclerolaena diacantha</i>		0.1	0.1		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.05		
<i>Eremophila scoparia</i>		0	1.8		
<i>Eremophila ionantha</i>		0	1.3		
<i>Dianella revoluta</i> var. <i>divaricata</i>		0	0.5		
<i>Olearia pimeleoides</i>				0.1	0.7
<i>Wurmbea tenella</i>				0.1	0.05
<i>Maireana trichoptera</i>				0.1	0.2
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>				0.1	0.5

Site details			
Site	PR07	Position (WGS84)	-30.981365, 119.503977
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Aggregates patches of open woodland of <i>Eucalyptus concinna</i> over sparse shrubland of <i>Eremophila caperata</i> over scattered <i>Lomandra effusa</i> .		
Habitat	woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)		Tree cover (%)	50
Shrub cover (%)	3	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	unbound	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (17)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus concinna</i>		65	25		
<i>Eremophila caperata</i>		4	1.5		
<i>Atriplex vesicaria</i>		1	0.75		
<i>Lomandra effusa</i>		0.1	0.4		
<i>Olearia muelleri</i>		0.1	0.3		
<i>Maireana georgei</i>		0.1	0.2		
<i>Podolepis capillaris</i>		0.1	0.1		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.1		
<i>Maireana carnososa</i>		0.1	0.05		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.05		
<i>Ptilotus halophilus</i>		0.1	0.05		
<i>Eragrostis dielsii</i>		0.1	0.05		
<i>Sclerolaena diacantha</i>		0.1	0.05		
<i>Wurmbea tenella</i>				0.1	0.05
<i>Erodium cygnorum</i>				0.1	0.05
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>				0.1	0.6
<i>Goodenia havilandii</i>				0.1	0.05

Site details			
Site	PR08	Position (WGS84)	-30.969428, 119.505314
Slope	gentle	Topography	plain
Soil colour	brown	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (18 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus salicola</i> and <i>E. celastroides</i> subsp. <i>celastroides</i> over shrubland of <i>Bossiaea walkeri</i> , <i>Olearia pimeleoides</i> and <i>Olearia muelleri</i> .		
Habitat	woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	35
Shrub cover (%)	8	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	18-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

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Species (26)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salicola</i>		27.5	20		
<i>Eucalyptus celastroides</i> subsp. <i>celastroides</i>		2.5	10		
<i>Olearia pimeleoides</i>		2	1.2		
<i>Bossiaea walkeri</i>		1	2.25		
<i>Olearia muelleri</i>		1	0.45		
<i>Acacia jennerae</i>		0.1	1.3		
<i>Austrostipa nodosa</i>		0.1	0.4		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Thysanotus manglesianus</i>		0.1	0.2		
<i>Thyridolepis mitchelliana</i>		0.1	0.2		
<i>Rytidosperma setaceum</i>		0.1	0.15		
<i>Aristida contorta</i>		0.1	0.15		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.1		
<i>Trachymene cyanopetala</i>		0.1	0.05		
<i>Podolepis capillaris</i>		0.1	0.05		
<i>Rhodanthe pygmaea</i>		0.1	0.05		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.05		
<i>Crassula colorata</i> var. <i>colorata</i>		0.1	0.02		
<i>Calandrinia eremaea</i>		0.1	0.02		
<i>Actinobole uliginosum</i>		0.1	0.01		
<i>Goodenia berardiana</i>		0.1			
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>		0	15		
<i>Lomandra effusa</i>		0	0.4		
<i>Wurmbea tenella</i>				0.1	0.05
<i>Acacia tetragonophylla</i>				0.1	2
<i>Eremophila ionantha</i>				0.2	3

Site details			
Site	PR09	Position (WGS84)	-30.9599, 119.507691
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (18 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over open shrubland of <i>Eremophila ionantha</i> and <i>Olearia muelleri</i> .		
Habitat	woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	45	Tree cover (%)	35
Shrub cover (%)	15	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	18-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Species (21)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>		40	15		
<i>Olearia muelleri</i>		12.5	0.4		
<i>Eremophila ionantha</i>		2	1.8		
<i>Acacia acuminata</i>		1	3		
<i>Acacia tetragonophylla</i>		1	2		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		1	1.3		
<i>Atriplex vesicaria</i>		0.5	0.4		
<i>Senna stowardii</i>		0.1	1.75		
<i>Austrostipa nodosa</i>		0.1	0.5		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.3		
<i>Thysanotus manglesianus</i>		0.1	0.3		
<i>Ptilotus obovatus</i>		0.1	0.3		
<i>Rhagodia drummondii</i>		0.1	0.3		
<i>Rytidosperma setaceum</i>		0.1	0.3		
<i>Aristida contorta</i>		0.1	0.2		
<i>Sclerolaena diacantha</i>		0.1	0.05		
<i>Pterostylis setulosa</i>	Weed	0.1	0.05		
<i>Podolepis capillaris</i>		0	0.1		
<i>Wurmbea tenella</i>				0.1	0.05
<i>Maireana georgei</i>				0.1	0.2

Site details			
Site	PR10	Position (WGS84)	-31.02888, 119.504524
Slope	gentle	Topography	plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (16 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> over shrubland of <i>Acacia resinimarginea</i> over scattered patches of <i>Triodia scariosa</i> .		
Habitat	mallee woodland		
Disturbance	vehicle tracks,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	70	Tree cover (%)	10
Shrub cover (%)	65	Grass cover (%)	1
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	16-Nov-2019	20 m x 20 m	David Leach

Species (21)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia resinimarginea</i>		40	1.9		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		7.5	3.5		
<i>Phebalium canaliculatum</i>		7.5	1		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		3	1.7		
<i>Callitris preissii</i>		2	0.5		
<i>Triodia scariosa</i>		2	0.3		
<i>Eucalyptus celastroides</i> subsp. <i>celastroides</i>		1	3		
<i>Thryptomene kochii</i>		1	0.5		
<i>Grevillea paradoxa</i>		1	0.4		
<i>Malleostemon roseus</i>		0.5	0.75		
<i>Hakea multilineata</i>		0.1	3		
<i>Eremophila ionantha</i>		0.1	1.2		
<i>Dianella revoluta</i> var. <i>divaricata</i>		0.1	0.5		
<i>Westringia cephalantha</i>		0.1	0.4		
<i>Cheiranthra filifolia</i>		0.1	0.4		
<i>Thysanotus manglesianus</i>		0.1	0.4		
<i>Alyxia buxifolia</i>		0.1	0.3		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.1		
<i>Homalocalyx thryptomenoides</i>				0.1	0.8
<i>Acacia acuminata</i>				0.1	1
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>				0.1	4

Site details			
Site	PR11	Position (WGS84)	-31.016576, 119.504324
Slope	negligible	Topography	plain
Soil colour	brown, whitish	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (17 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> over tall shrubland of <i>Alyxia buxifolia</i> , <i>Exocarpos aphyllus</i> , and <i>Acacia gibbosa</i> .		
Habitat	woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	45
Shrub cover (%)	5	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	17-Nov-2019	unbound	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (22)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		10	6		
<i>Acacia gibbosa</i>		10	4		
<i>Alyxia buxifolia</i>		10	3		
<i>Acacia resinimarginea</i>		7.5	3		
<i>Hakea multilineata</i>		2	4		
<i>Exocarpos aphyllus</i>		2	2.5		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		2	2.2		
<i>Santalum spicatum</i>		1	1.8		
<i>Olearia pimeleoides</i>		1	1		
<i>Euryomyrtus maidenii</i>		1	0.5		
<i>Prostanthera grylloana</i>		1	0.5		
<i>Chamaexeros macranthera</i>		1	0.25		
<i>Eremophila latrobei</i> subsp. <i>filiformis</i>		0.1	1.2		
<i>Phebalium canaliculatum</i>		0.1	1		
<i>Dianella revoluta</i> var. <i>divaricata</i>		0.1	0.6		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.1		
<i>Philothea brucei</i> subsp. <i>brucei</i>		0	1		
<i>Wurmbea tenella</i>				0.1	0.05
<i>Lomandra effusa</i>				0.1	0.2
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>				0.1	1
<i>Philothea brucei</i> subsp. <i>brucei</i>				0.1	0.6

Site details			
Site	PR12	Position (WGS84)	-31.200746, 119.508162
Slope	negligible	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (14 Nov 2019)			
Sample description	Tall closed shrubland of <i>Melaleuca vinnula</i> , <i>M. lateriflora</i> and <i>M. laxiflora</i> over low shrubland of <i>Phebalium megaphyllum</i> .		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	90	Tree cover (%)	60
Shrub cover (%)	60	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	14-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (15)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Melaleuca vinnula</i>		50	2		
<i>Phebalium tuberosum</i>		20	1		
<i>Phebalium megaphyllum</i>		10	1.1		
<i>Melaleuca lateriflora</i>		7.5	2		
<i>Melaleuca laxiflora</i>		7.5	1.25		
<i>Acacia enervia</i> subsp. <i>enervia</i>		3	2.5		
<i>Melaleuca acuminata</i> subsp. <i>acuminata</i>		2	2		
<i>Acacia resinimarginea</i>		0.5	3		
<i>Callitris preissii</i>		0.1	2.5		
<i>Thryptomene kochii</i>		0.1	1		
<i>Prostanthera semiteres</i> subsp. <i>semiteres</i>		0.1	0.7		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.05		
<i>Calocephalus multiflorus</i>		0.1	0.02		
<i>Wurmbea tenella</i>				0.1	0.03
<i>Pterostylis setulosa</i>				0.1	0.05

Site details			
Site	PR13	Position (WGS84)	-31.196482, 119.50792
Slope	gentle	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (14 Nov 2019)			
Sample description	Tall shrubland of <i>Allocasuarina coniculata</i> and <i>A. acutivalvus</i> subsp. <i>acutivalvus</i> over an open mid shrubland of <i>Thryptomene kochii</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	80	Tree cover (%)	45
Shrub cover (%)	35	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	14-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (22)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Thryptomene kochii</i>		30	1.25		
<i>Allocasuarina corniculata</i>		20	2.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		3	3		
<i>Melaleuca laxiflora</i>		2	1.8		
<i>Santalum acuminatum</i>		1	2.5		
<i>Leptospermum fastigiatum</i>		1	2		
<i>Acacia acuminata</i>		0.1	3		
<i>Melaleuca hamata</i>		0.1	2		
<i>Euryomyrtus leptospermoides</i>		0.1	0.6		
<i>Hakea erecta</i>		0.1	0.5		
<i>Homalocalyx thryptomenoides</i>		0.1	0.5		
<i>Stylidium limbatum</i>		0.1	0.1		
<i>Calocephalus multiflorus</i>		0.1	0.02		
<i>Acacia resinimarginea</i>		0.1			
<i>Amhipogon caricinus</i> var. <i>caricinus</i>				0.1	0.2
<i>Baeckea elderiana</i>				0.1	1.6
<i>Drosera andersoniana</i>				0.1	0.1
<i>Grevillea paradoxa</i>				0.1	0.4
<i>Thysanotus manglesianus</i>				0.1	0.01
<i>Micromyrtus erichsenii</i>				0.1	0.5
<i>Pterostylis setulosa</i>				0.1	0.1
<i>Euryomyrtus maidenii</i>				0.1	0.4

Site details			
Site	PR14	Position (WGS84)	-31.519606, 119.527583
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Nov 2019)			
Sample description	Tall shrubland of <i>Acacia acuminata</i> over closed shrubland of <i>Phebalium lepidotum</i> , <i>Euryomyrtus maidenii</i> .		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	80	Tree cover (%)	20
Shrub cover (%)	70	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	27-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (10)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Phebalium lepidotum</i>		65	1.5		
<i>Acacia acuminata</i>		20	6		
<i>Euryomyrtus maidenii</i>		10	0.4		
<i>Thryptomene kochii</i>		4	1.2		
<i>Thysanotus manglesianus</i>		0.1	0.5		
<i>Homalocalyx thryptomenoides</i>		0.1	0.5		
<i>Verticordia helmsii</i>		0.1	0.4		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.05		
<i>Pterostylis roensis</i>				0.1	0.1
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)				0.1	1.1

Site details			
Site	PR15	Position (WGS84)	-31.529836, 119.528123
Slope	gentle	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (28 Nov 2019)			
Sample description	Tall shrubland of <i>Acacia acuminata</i> over shrubland of <i>Allocasuarina corniculata</i> , <i>Euryomyrtus maidenii</i> , and <i>Leptospermum fastigiatum</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not recorded
Total veg. cover (%)	25	Tree cover (%)	20
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	28-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (16)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia acuminata</i>		15	4		
<i>Allocasuarina corniculata</i>		4	2.5		
<i>Grevillea paradoxa</i>		1.5	0.8		
<i>Euryomyrtus maidenii</i>		1.5	0.4		
<i>Leptospermum fastigiatum</i>		1	1.5		
<i>Melaleuca hamata</i>		0.5	3		
<i>Melaleuca cordata</i>		0.1	1.2		
<i>Thryptomene kochii</i>		0.1	0.5		
<i>Verticordia helmsii</i>		0.1	0.4		
<i>Euryomyrtus leptospermoides</i>		0.1	0.4		
<i>Drosera andersoniana</i>		0.1	0.3		
<i>Lepidosperma costale</i>		0.1	0.25		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.05		
<i>Baeckea elderiana</i>				35	1.7
<i>Thysanotus manglesianus</i>				0.1	0.1
<i>Hibbertia eatoniae</i>				2	0.3

Site details			
Site	PR16	Position (WGS84)	-31.589515, 119.527793
Slope	gentle	Topography	hill slope
Soil colour	brown, yellow, whitish	Soil texture	clay loam
Rock cover (%)	0	Rock type	ferrous – ironstone

Observation details - visit 1 (29 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus tenera</i> over an open shrubland of <i>Acacia hemiteles</i> , <i>A. erinacea</i> and <i>Westringia cephalantha</i> .		
Habitat	mallee woodland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	45	Tree cover (%)	40
Shrub cover (%)	35	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	29-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (25)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus tenera</i>		10	7		
<i>Daviesia argillacea</i>		5	0.8		
<i>Acacia hemiteles</i>		5	0.4		
<i>Acacia erinacea</i>		3	0.2		
<i>Melaleuca hamata</i>		2	0.6		
<i>Westringia cephalantha</i>		2	0.4		
<i>Santalum acuminatum</i>		1	1		
<i>Callitris columellaris</i>		1	0.4		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		1	0.4		
<i>Phebalium filifolium</i>		1	0.3		
<i>Cryptandra distigma</i>		1	0.3		
<i>Acacia concolorans</i>	P2 (DBCA list)	1	0.2		
<i>Melaleuca lateriflora</i>		0.1	1		
<i>Acacia steedmanii</i> subsp. <i>steedmanii</i>		0.1	1		
<i>Allocasuarina</i> sp.		0.1	0.5		
<i>Melaleuca eleuterostachya</i>		0.1	0.4		
<i>Styphelia serratifolia</i>		0.1	0.2		
<i>Grevillea acuaria</i>		0.1	0.2		
<i>Phebalium tuberculosum</i>		0	0.3		
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>				15	6
<i>Beyeria sulcata</i> var. <i>gracilis</i>				0.2	0.4
<i>Eremophila granitica</i>				0.1	0.7
<i>Eucalyptus calycogona</i> subsp. <i>miraculum</i>				10	6
<i>Melaleuca acuminata</i> subsp. <i>acuminata</i>				2	0.6
<i>Eremophila</i> sp.				0.1	0.3

Site details			
Site	PR17	Position (WGS84)	-31.055187, 119.504966
Slope	negligible	Topography	plain
Soil colour	brown, whitish	Soil texture	clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (16 Nov 2019)			
Sample description	Thicket shrubland of <i>Acacia resinosa</i> over open shrubland of <i>Grevillea paradoxa</i> and <i>Leucopogon</i> sp. outer wheatbelt (M. Hislop 30).		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	85	Tree cover (%)	85
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	unbounded	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (14)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia resinosa</i>		85	3		
<i>Grevillea paradoxa</i>		4	1.4		
<i>Leucopogon sp. outer wheatbelt (M. Hislop 30)</i>		1	1.25		
<i>Hakea multilineata</i>		0.1	3		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		0.1	1.5		
<i>Phebalium tuberculosum</i>		0.1	0.4		
<i>Drosera andersoniana</i>		0.1	0.2		
<i>Pterostylis setulosa</i>	Weed			0.1	0.05
<i>Xerolirion divaricata</i>				0.1	0.4
<i>Wurmbea tenella</i>				0.1	0.05
<i>Micromyrtus racemosa</i>				0.1	1
<i>Chamaexeros macranthera</i>				0.1	0.3
<i>Arthropodium dyeri</i>				0.1	0.1
<i>Amphipogon caricinus</i> var. <i>caricinus</i>				0.1	0.1

Site details			
Site	PR18	Position (WGS84)	-30.957279, 119.50853
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Tall shrubland of <i>Acacia acuminata</i> and <i>Hakea preissii</i> over sparse shrubland of <i>Dodonaea viscosa</i> subsp. <i>angustissima</i> and <i>Rhagodia spinescens</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	4
Shrub cover (%)	40	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Species (16)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia acuminata</i>		35	3.5		
<i>Rhagodia spinescens</i>		2	1.4		
<i>Hakea preissii</i>		1.5	3		
<i>Santalum spicatum</i>		1	2.5		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		1	1.25		
<i>Ptilotus obovatus</i>		1	0.3		
<i>Maireana georgei</i>		0.1	0.2		
<i>Solanum orbiculatum</i> subsp. <i>orbiculatum</i>		0.1	0.15		
<i>Maireana thesioides</i>		0.1	0.1		
<i>Sclerolaena gardneri</i>		0.1	0.1		
<i>Sclerolaena diacantha</i>		0.1	0.1		
<i>Cephalopterum drummondii</i>		0.1	0.05		
<i>Austrostipa elegantissima</i>				0.1	0.2
<i>Olearia pimeleoides</i>				0.1	0.4
<i>Rhagodia drummondii</i>				0.1	0.4
<i>Monachather paradoxus</i>				0.1	0.2

Site details			
Site	PR19	Position (WGS84)	-30.962299, 119.507279
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Tall shrubland of <i>Acacia acuminata</i> and <i>A. tetragonophylla</i> over an open shrubland of <i>Dodonaea viscosa</i> subsp. <i>angustissima</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	80	Tree cover (%)	75
Shrub cover (%)	15	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

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Species (13)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia acuminata</i>		60	6.5		
<i>Acacia tetragonophylla</i>		2	2.5		
<i>Santalum spicatum</i>		1	2.5		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		1	1.8		
<i>Olearia pimeleoides</i>		0.1	1.5		
<i>Thysanotus manglesianus</i>		0.1	1		
<i>Grevillea oncogyne</i>		0.1	1		
<i>Austrostipa platychaeta</i>		0.1	1		
<i>Olearia muelleri</i>		0.1	0.5		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.05		
<i>Cephalopterum drummondii</i>		0.1	0.05		
<i>Pterostylis setulosa</i>	Weed			0.1	0.1
<i>Acacia jennerae</i>				0.1	4

Site details			
Site	PR20-R	Position (WGS84)	-31.091315, 119.50468
Slope	negligible	Topography	salt lake (playa)
Soil colour	red-brown	Soil texture	loam, clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (14 Nov 2019)			
Sample description	Small inward draining playa of <i>Borya constricta</i> and <i>Drosera andersoniana</i> .		
Habitat	herbland / forbland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not recorded
Total veg. cover (%)	50	Tree cover (%)	0
Shrub cover (%)	0	Grass cover (%)	0
Herb cover (%)	50		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	14-Nov-2019	unbounded	David Leach

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

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Species (2)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Borya constricta</i>		50	0.05		
<i>Drosera andersoniana</i>		0.1	0.1		

Site details			
Site	PR21-R	Position (WGS84)	-30.946957, 119.512668
Slope	gentle	Topography	plain
Soil colour	brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Saline open shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> over low shrubland of <i>Tecticornia peltata</i> , <i>T. sp.</i> Dennys Crossing (K.A. Shepherd & J. English KS 552) and <i>Sarcosoma praecox</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	60	Tree cover (%)	5
Shrub cover (%)	60	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	15-Nov-2019	unbounded	David Leach

Species (13)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Sarcozona praecox</i>		17.5	0.2		
<i>Tecticornia peltata</i>		12.5	0.3		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		5	2.5		
<i>Tecticornia</i> sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)		5	0.3		
<i>Atriplex vesicaria</i>		1	0.4		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.4		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Sclerolaena eurotioides</i>		0.1	0.3		
<i>Frankenia interioris</i>		0.1	0.2		
<i>Podolepis capillaris</i>		0.1	0.15		
<i>Maireana amoena</i>		0.1	0.15		
<i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>		0.1	0.1		
<i>Eragrostis dielsii</i>		0.1	0.05		

Site details			
Site	PR22	Position (WGS84)	-31.056665, 119.504177
Slope	gentle	Topography	plain
Soil colour	whitish	Soil texture	clay
Rock cover (%)	5	Rock type	limestone

Observation details - visit 1 (16 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus capillosa</i> over open shrubland of <i>Alyxia buxiflora</i> , <i>Xerolirion divaricata</i> and other minor shrubs.		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	25
Shrub cover (%)	30	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Species (17)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus capillosa</i>		25	30		
<i>Alyxia buxifolia</i>		25	1.8		
<i>Xerolirion divaricata</i>		3	0.4		
<i>Westringia cephalantha</i>		2	1		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		1	3.5		
<i>Acacia erinacea</i>		1	0.6		
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)		0.1	1.2		
<i>Phebalium tuberosum</i>		0.1	1		
<i>Acacia acuminata</i>		0.1	1		
<i>Gastrolobium parviflorum</i>		0.1	0.8		
<i>Olearia muelleri</i>		0.1	0.3		
<i>Rytidosperma setaceum</i>		0.1	0.2		
<i>Dodonaea inaequifolia</i>				0.1	1.5
<i>Comesperma volubile</i>				0.1	0.1
<i>Austrostipa platychaeta</i>				0.1	0.2
<i>Santalum spicatum</i>				0.1	1.6
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>				0	6

Site details			
Site	PR23	Position (WGS84)	-30.948389, 119.51088
Slope	gentle	Topography	plain
Soil colour	brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Low saline shrubland of <i>Atriplex vesicaria</i> , <i>Sarcosoma praecox</i> and <i>Dysphema crassifolium</i> subsp. <i>clavellatum</i> .		
Habitat	chenopod shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	0
Shrub cover (%)	40	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Species (16)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Atriplex vesicaria</i>		20	0.45		
<i>Sarcozona praecox</i>		12.5	0.25		
<i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>		7.5	0.1		
<i>Eragrostis dielsii</i>		5	0.01		
<i>Rhagodia ulicina</i>		1	0.45		
<i>Frankenia interioris</i>		1	0.3		
<i>Sclerolaena eurotioides</i>		0.1	0.3		
<i>Maireana amoena</i>		0.1	0.1		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		0.1	0.05		
<i>Asteraceae</i> sp.		0.1	0.02		
<i>Pogonolepis muelleriana</i>		0.1	0.02		
<i>Crassula colorata</i> var. <i>colorata</i>		0.1	0.02		
<i>Pogonolepis stricta</i>		0.1	0.02		
<i>Maireana trichoptera</i>				0.1	0.1
<i>Maireana villosa</i>				0.1	0.1
<i>Dissocarpus paradoxus</i>				0.1	0.1

Site details			
Site	PR24	Position (WGS84)	-30.979764, 119.504177
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	ii		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	40
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (17)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		40	3		
<i>Hakea recurva</i> subsp. <i>arida</i>		5	2.25		
<i>Acacia enervia</i> subsp. <i>enervia</i>		2	3		
<i>Exocarpos aphyllus</i>		1	1.4		
<i>Rhagodia drummondii</i>		1	0.4		
<i>Olearia muelleri</i>		0.1	0.4		
<i>Maireana thesioides</i>		0.1	0.3		
<i>Rytidosperma caespitosum</i>		0.1	0.2		
<i>Ptilotus halophilus</i>		0.1	0.1		
<i>Sclerolaena fusiformis</i>		0.1	0.1		
<i>Lepidium rotundum</i>		0.1	0.1		
<i>Maireana carnososa</i>		0.1	0.05		
<i>Sclerolaena diacantha</i>		0.1	0.05		
<i>Atriplex vesicaria</i>				0.1	0.4
<i>Austrostipa platychaeta</i>				0.1	0.2
<i>Maireana thesioides</i>				0.1	0.3
<i>Maireana georgei</i>				0.1	0.1

Site details			
Site	PR25	Position (WGS84)	-30.943176, 119.51219
Slope	gentle	Topography	undulating plain
Soil colour	red-orange, brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Tall open shrubland of <i>Dodonea viscosa</i> subsp. <i>angustissima</i> and <i>Hakea preissii</i> over low shrubland of <i>Cratystylis subspinescens</i> and <i>Sarcozona praecox</i> .		
Habitat	shrubland		
Disturbance	vehicle tracks		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	35	Tree cover (%)	2
Shrub cover (%)	35	Grass cover (%)	0
Herb cover (%)	1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

Prepared for Mineral Resources Ltd

Species (23)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Cratystylis subspinescens</i>		12.5	1.5		
<i>Atriplex vesicaria</i>		5	0.5		
<i>Hakea preissii</i>		4	1.75		
<i>Rhagodia spinescens</i>		3	0.5		
<i>Sarcozona praecox</i>		2	0.15		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		1	1.75		
<i>Eragrostis dielsii</i>		1	0.05		
<i>Frankenia interioris</i>		0.5	0.1		
<i>Frankenia pauciflora</i>		0.5	0.1		
<i>Templetonia smithiana</i>		0.1	1.75		
<i>Leiocarpa semicalva</i>		0.1	0.2		
<i>Pterostylis roensis</i>		0.1	0.2		
<i>Sclerolaena eurotioides</i>		0.1	0.2		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.2		
<i>Lepidium rotundum</i>		0.1	0.15		
<i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>		0.1	0.1		
<i>Maireana appressa</i>		0.1	0.1		
<i>Podolepis capillaris</i>		0.1	0.1		
<i>Ptilotus halophilus</i>		0.1	0.1		
<i>Maireana carnosae</i>		0.1	0.05		
<i>Sclerolaena diacantha</i>				0.1	0.1
<i>Sclerolaena parviflora</i>				0.1	0.1
<i>Maireana amoena</i>				0.1	0.1

Site details			
Site	PR26	Position (WGS84)	-31.057167, 119.503935
Slope	negligible	Topography	plateau
Soil colour	BLK	Soil texture	alluvium
Rock cover (%)	0	Rock type	calcrete

Observation details - visit 1 (16 Nov 2019)			
Sample description	Open shrubland of <i>Alyxia buxifolia</i> , <i>Micromyrtus racemosa</i> and <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> over <i>Borya constricta</i> .		
Habitat	herbland / forbland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	10	Tree cover (%)	0
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	08-May-2020	20m x 20m	David Leach

Species (25)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Borya constricta</i>		10	0.05		
<i>Alyxia buxifolia</i>		1	1.8		
<i>Micromyrtus racemosa</i>		1	1.5		
<i>Xerolirion divaricata</i>		1	0.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		0.1	1.7		
<i>Eremophila latrobei</i> subsp. <i>filiformis</i>		0.1	1		
<i>Leucopogon</i> sp. <i>outer wheatbelt (M. Hislop 30)</i>		0.1	0.7		
<i>Cassytha racemosa</i>		0.1	0.5		
<i>Lissanthe scabra</i>	P2 (DBCA list)	0.1	0.5		
<i>Ecdeiocolea monostachya</i>		0.1	0.4		
<i>Arthropodium dyeri</i>		0.1	0.15		
<i>Cyanicula amplexans</i>		0.1	0.1		
<i>Drosera andersoniana</i>		0.1	0.1		
<i>Lachnagrostis plebeia</i>		0.1	0.1		
<i>Rytidosperma setaceum</i>		0.1	0.1		
<i>Trachymene ornata</i>		0.1	0.1		
<i>Thelymitra antennifera</i>		0.1	0.05		
<i>Micromyrtus ?racemosa</i>				0.1	1
<i>Melaleuca leiocarpa</i>				0.1	1
<i>Diuris hazeliae</i>				0.1	0.1
<i>Philothea brucei</i> subsp. <i>brucei</i>				0.1	1
<i>Comesperma volubile</i>				0.1	0.1
<i>Cheilanthes adiantoides</i>				0.1	0.1
<i>Wurmbea tenella</i>				0.01	0.05
<i>Hibbertia eatoniae</i>				0.1	0.15

Site details			
Site	PR27	Position (WGS84)	-31.043805, 119.504384
Slope	negligible	Topography	plateau
Soil colour	brown, whitish	Soil texture	clay loam
Rock cover (%)	5	Rock type	limestone

Observation details - visit 1 (17 Nov 2019)			
Sample description	Calcrete platform of scattered <i>Callitris columellaris</i> , <i>Eremophila latrobei</i> subsp. <i>filiformis</i> and <i>Lissanthe scabra</i> over <i>Borya constricta</i> .		
Habitat	herbland / forbland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	10	Tree cover (%)	1
Shrub cover (%)	4	Grass cover (%)	0
Herb cover (%)	5		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	17-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Species (24)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Borya constricta</i>		5	0.05		
<i>Lissanthe scabra</i>	P2 (DBCA list)	3	1.2		
<i>Callitris columellaris</i>		1	2.5		
<i>Eremophila latrobei</i> subsp. <i>filiformis</i>		1	1.5		
<i>Xerolirion divaricata</i>		1	0.4		
<i>Baeckea elderiana</i>		0.5	1.5		
<i>Lepidosperma</i> sp. <i>Mt Caudan</i> (N. Gibson & M. Lyons 2081)	P1 (DBCA list)	0.5	0.4		
<i>Astus subroseus</i>		0.3	0.3		
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)		0.1	1.6		
<i>Alyxia buxifolia</i>		0.1	0.4		
<i>Callitris preissii</i>		0.1	0.2		
<i>Arthropodium dyeri</i>		0.1	0.2		
<i>Thelymitra antennifera</i>		0.1	0.2		
<i>Drosera andersoniana</i>		0.1	0.1		
<i>Cheilanthes adiantoides</i>		0.1	0.1		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.1		
<i>Trachymene cyanopetala</i>		0.1	0.05		
<i>Calytrix merrelliana</i>				0.2	0.5
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>				0.1	1
<i>Micromyrtus</i> ? <i>racemosa</i>				0.1	
<i>Hibbertia eatoniae</i>				0.1	0.5
<i>Philothea brucei</i> subsp. <i>brucei</i>				0.5	1.5
<i>Wurmbea tenella</i>				0.1	0.05
<i>Drosera andersoniana</i>				0.1	0.15

Site details			
Site	PR28	Position (WGS84)	-31.561821, 119.528782
Slope	gentle	Topography	undulating plain
Soil colour	brown, whitish	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (28 Nov 2019)			
Sample description	Mallee woodland of <i>Eucalyptus sheathiana</i> and <i>E. tenera</i> over shrubland of <i>Dodonaea viscosa</i> subsp. <i>angustissima</i> , <i>Olearia muelleri</i> and <i>Acacia hemiteles</i> over <i>Lepidosperma lyonsii</i> .		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	35	Tree cover (%)	35
Shrub cover (%)	8	Grass cover (%)	0
Herb cover (%)	3		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	28-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (18)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus sheathiana</i>		20	7.5		
<i>Eucalyptus tenera</i>		15	5		
<i>Lepidosperma lyonsii</i>	P1 (DBCA list)	5	0.2		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		4	1.3		
<i>Acacia hemiteles</i>		4	1		
<i>Olearia muelleri</i>		2	0.4		
<i>Eremophila granitica</i>		0.1	1		
<i>Alyxia buxifolia</i>		0.1	0.7		
<i>Exocarpos aphyllus</i>		0.1	0.4		
<i>Westringia cephalantha</i>		0.1	0.4		
<i>Podolepis capillaris</i>		0.1	0.15		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.05		
<i>Eucalyptus transcontinentalis</i>		0	4		
<i>Daviesia argillacea</i>		0	0.4		
<i>Grevillea acuaria</i>				0.1	0.2
<i>Ozothamnus occidentalis</i>				0	0.3
<i>Calandrinia</i> sp.				0.1	0.1
<i>Trachymene cyanopetala</i>				0.1	0.1

Site details			
Site	PR29	Position (WGS84)	-31.571448, 119.52841
Slope	gentle	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (28 Nov 2019)			
Sample description	Woodland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> , <i>E. salmonophloia</i> and <i>E. salubris</i> over <i>Acacia collectoides</i> , <i>A. merrallii</i> and <i>Phebalium tuberosum</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	55	Tree cover (%)	55
Shrub cover (%)	5	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	28-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (15)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		15	5.5		
<i>Eucalyptus salmonophloia</i>		7.5	25		
<i>Eucalyptus salubris</i>		2.5	10		
<i>Phebalium tuberculosum</i>		1.5	1.05		
<i>Acacia merrallii</i>		1	0.2		
<i>Acacia colletioides</i>		0.1	1.25		
<i>Grevillea acuaria</i>		0.1	0.5		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Wilsonia humilis</i>		0.1	0.2		
<i>Acacia erinacea</i>		0	0.2		
<i>Templetonia smithiana</i>				0.1	0.2
<i>Daviesia nematophylla</i>				0.1	1.2
<i>Acacia intricata</i>				0.1	0.2
<i>Acacia hemiteles</i>				0.1	1.5
<i>Acacia deficiens</i>				0.1	0.2

Site details			
Site	PR30-R	Position (WGS84)	-30.998878, 119.504289
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (17 Nov 2019)			
Sample description	Woodland of <i>Eucalyptus longissima</i> and <i>E. yilgarnensis</i> over an open shrubland of <i>Atriplex nummularia</i> , <i>Exocarpus aphyllus</i> and <i>Eremophila scoparia</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	50
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	17-Nov-2019	20 m x 20 m	David Leach

Species (15)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus longissima</i>		40	30		
<i>Eucalyptus yilgarnensis</i>		10	10		
<i>Atriplex nummularia</i>		2	1.6		
<i>Exocarpos aphyllus</i>		1	3		
<i>Eremophila scoparia</i>		1	1.8		
<i>Eremophila ionantha</i>		1	1		
<i>Atriplex vesicaria</i>		1	0.5		
<i>Olearia muelleri</i>		1	0.4		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		0.1	3.5		
<i>Senna artemisioides</i> subsp. <i>x artemisioides</i>		0.1	1.25		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Maireana georgei</i>		0.1	0.3		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.3		
<i>Roepera apiculata</i>		0.1	0.15		
<i>Maireana thesioides</i>		0.1	0.05		

Site details			
Site	PR31	Position (WGS84)	-31.598962, 119.524655
Slope	gentle	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (29 Nov 2019)			
Sample description	Scattered mallees of <i>Eucalyptus aspratilis</i> , <i>E. pileata</i> and <i>E. burracoppinensis</i> over tall shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> , <i>A. corniculata</i> and		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	90	Tree cover (%)	70
Shrub cover (%)	50	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	29-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (32)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		55	4.5		
<i>Thryptomene kochii</i>		30	1.4		
<i>Allocasuarina corniculata</i>		15	1.8		
<i>Eucalyptus aspratilis</i>		2.5	6		
<i>Eucalyptus pileata</i>		2.5	4		
<i>Eucalyptus burracoppinensis</i>		1.5	6		
<i>Eucalyptus leptopoda</i> subsp. <i>subluta</i>		1.5	2.5		
<i>Melaleuca cordata</i>		1	1.3		
<i>Baeckea elderiana</i>		1	1.25		
<i>Micromyrtus erichsenii</i>		1	1.2		
<i>Hakea multilineata</i>		1	0		
<i>Acacia acuminata</i>		0.1	3		
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)		0.1	1.5		
<i>Melaleuca hamata</i>		0.1	1		
<i>Grevillea paradoxa</i>		0.1	0.8		
<i>Rinzia torquata</i>	P3 (DBCA list)	0.1	0.5		
<i>Euryomyrtus maidenii</i>		0.1	0.4		
<i>Cyathostemon verrucosus</i>	P3 (DBCA list)	0.1	0.3		
<i>Verticordia helmsii</i>		0.1	0.3		
<i>Westringia cephalantha</i>		0.1	0.3		
<i>Thysanotus manglesianus</i>		0.1	0.1		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.1		
<i>Erymophyllum tenellum</i>		0.1	0.01		
<i>Angianthus cornutus</i>		0.1	0.01		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>				0.1	1.5
<i>Santalum lanceolatum</i>				0.1	2
<i>Drosera andersoniana</i>				0.1	0.1
<i>Persoonia saundersiana</i>				0.1	1
<i>Persoonia coriacea</i>				0.1	1.1
<i>Hibbertia eatoniae</i>				2	0.3
<i>Grevillea stenobotrya</i>				0.1	1.5
<i>Cassytha glabella</i> forma <i>casuarinae</i>				0.1	1

Site details			
Site	PR32	Position (WGS84)	-31.547625, 119.528137
Slope	negligible	Topography	plain
Soil colour	brown, yellow	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (28 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> and <i>E. pileata</i> over shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> , <i>Thryptomene kochii</i> and <i>Grevillea paradoxa</i>		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not recorded
Total veg. cover (%)		Tree cover (%)	
Shrub cover (%)		Grass cover (%)	
Herb cover (%)			



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	28-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (24)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Thryptomene kochii</i>		30	0.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		3	4		
<i>Grevillea paradoxa</i>		3	1.25		
<i>Drummondita hassellii</i>		3	1		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		2.5	5		
<i>Eucalyptus pileata</i>		2.5	5		
<i>Cassytha glabella</i> forma <i>glabella</i>		2.5	1		
<i>Baeckea elderiana</i>		2	1.2		
<i>Hakea multilineata</i>		1	3		
<i>Acacia yorkkrakinensis</i> subsp. <i>acrita</i>		1	2		
<i>Persoonia saundersiana</i>		1	2		
<i>Melaleuca cordata</i>		1	1.75		
<i>Persoonia inconspicua</i>		1	1.5		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		1	1.2		
<i>Euryomyrtus maidenii</i>		1	0.3		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.5	0.1		
<i>Acacia nigripilosa</i> subsp. <i>nigripilosa</i>		0.1	1.75		
<i>Phebalium megaphyllum</i>		0.1	1		
<i>Styphelia serratifolia</i>		0.1	0.4		
<i>Verticordia helmsii</i>		0.1	0.3		
<i>Drosera andersoniana</i>		0.1	0.3		
<i>Leucopogon</i> sp. <i>outer wheatbelt (M. Hislop 30)</i>		0.1	0.3		
<i>Hibbertia eatoniae</i>				1	0.3
<i>Thysanotus manglesianus</i>				0.1	0.1

Site details			
Site	PR33	Position (WGS84)	-31.460418, 119.523304
Slope	negligible	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (20 Nov 2019)			
Sample description	Scattered mallee woodland of <i>Eucalyptus rigidula</i> over a shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> and <i>A. beauverdiana</i> over <i>Thryptomene kochii</i> .		
Habitat	mallee woodland		
Disturbance	vehicle tracks		
Vegetation condition	Very Good	Fire age	not recorded
Total veg. cover (%)	70	Tree cover (%)	50
Shrub cover (%)	30	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	20-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (21)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		35	4		
<i>Acacia beauverdiana</i>		10	3		
<i>Thryptomene kochii</i>		10	1.6		
<i>Eucalyptus rigidula</i>		5	6		
<i>Callitris preissii</i>		4	2.5		
<i>Melaleuca hamata</i>		2.5	2.5		
<i>Persoonia coriacea</i>		1	0.6		
<i>Euryomyrtus maidenii</i>		1	0.2		
<i>Santalum acuminatum</i>		0.1	1.5		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.6		
<i>Melaleuca cordata</i>		0.1	0.6		
<i>Micromyrtus erichsenii</i>		0.1	0.6		
<i>Phebalium megaphyllum</i>		0.1	0.6		
<i>Westringia cephalantha</i>		0.1	0.5		
<i>Euryomyrtus leptospermoides</i>		0.1	0.5		
<i>Drummondita hassellii</i>		0.1	0.4		
<i>Verticordia helmsii</i>		0.1	0.3		
<i>Drosera andersoniana</i>				0.1	0.4
<i>Thysanotus manglesianus</i>				0.1	0.5
<i>Baeckea elderiana</i>				15	1.6
<i>Hibbertia eatoniae</i>				1	0.4

Site details			
Site	PR34	Position (WGS84)	-31.607533, 119.530393
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (30 Nov 2019)			
Sample description	Mallee woodland of <i>Eucalyptus pileata</i> over a shrubland of <i>Acacia desertorum</i> var. <i>nudipes</i> , <i>Acacia yorkkrakinensis</i> subsp. <i>acrita</i> and <i>Daviesia intricata</i> subsp. <i>xiphophylla</i> .		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	relatively recent (1-5 years)
Total veg. cover (%)	70	Tree cover (%)	4
Shrub cover (%)	70	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	30-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	25-Jul-2020	20m x 20m	Shenade Findlay

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Species (41)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus pileata</i>		25	2		
<i>Acacia desertorum</i> var. <i>nudipes</i>	P3 (DBCA list)	5	1.2		
<i>Daviesia intricata</i> subsp. <i>xiphophylla</i>		5	0.3		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		3	1.5		
<i>Gastrolobium spinosum</i>		2.5	0.4		
<i>Allocasuarina spinosissima</i>		2.5	0.4		
<i>Grevillea hookeriana</i> subsp. <i>apiciloba</i>		2.5	0.4		
<i>Grevillea excelsior</i>		2	2.5		
<i>Melaleuca calyptroides</i>		2			
<i>Beaufortia puberula</i>		1.5	0.3		
<i>Leptomeria preissiana</i>		1	1.6		
<i>Daviesia croniniana</i>		1	0.6		
<i>Hakea erecta</i>		1	0.6		
<i>Persoonia coriacea</i>		1	0.5		
<i>Isopogon scabriusculus</i> subsp. <i>pubifloris</i>		1	0.5		
<i>Petrophile merrallii</i>		1	0.4		
<i>Adenanthos argyreus</i>		1	0.3		
<i>Santalum acuminatum</i>		0.1	1.4		
<i>Micromyrtus erichsenii</i>		0.1	0.5		
<i>Grevillea acuaria</i>		0.1	0.4		
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)		0.1	0.4		
<i>Verticordia picta</i>		0.1	0.35		
<i>Cyathostemon verrucosus</i>	P3 (DBCA list)	0.1	0.3		
<i>Lepidosperma diurnum</i>		0.1	0.3		
<i>Baeckea grandibracteata</i> subsp. <i>Parker Range</i> (K. Newbey 9270)	P3 (DBCA list)	0.1	0.3		
<i>Templetonia aculeata</i>		0.1	0.3		
<i>Chamaexeros macranthera</i>		0.1	0.3		
<i>Grevillea incrassata</i>		0.1	0.3		
<i>Caustis dioica</i>		0.1	0.25		
<i>Cryptandra crispula</i>	P3 (DBCA list)	0.1	0.25		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.25		
<i>Phebalium filifolium</i>		0.1	0.2		
<i>Drummondita hassellii</i>		0.1	0.2		
<i>Euryomyrtus maidenii</i>		0.1	0.2		
<i>Jacksonia nematoclada</i>		0.1	0.2		
<i>Eucalyptus burracoppinensis</i>		0	3.5		
<i>Chamelaucium megalopetalum</i>				0.1	0.15
<i>Cryptandra graniticola</i>				0.1	0.2

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<i>Hakea minyma</i>	0.1	0.4
<i>Styphelia dielsiana</i>	0.1	0.2
<i>Halgania lavandulacea</i>	0.2	0.25

Site details			
Site	PR35	Position (WGS84)	-31.578218, 119.527024
Slope	gentle	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (29 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus burracoppinensis</i> and <i>E. pileata</i> over a tall shrubland of <i>Allocasuarina corniculata</i> and <i>A. acutivalvis</i> subsp. <i>acutivalvis</i> over a mid shrubland of <i>Cal</i>		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	65	Tree cover (%)	30
Shrub cover (%)	45	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	29-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

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Species (36)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Drummondita hassellii</i>		12.5	0.6		
<i>Callitris preissii</i>		7.5	2.5		
<i>Allocasuarina corniculata</i>		7.5	2.25		
<i>Eucalyptus burracoppinensis</i>		6	4.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		4	4		
<i>Allocasuarina spinosissima</i>		3.5	3		
<i>Eucalyptus pileata</i>		3	3		
<i>Melaleuca cordata</i>		2.5	1.9		
<i>Micromyrtus erichsenii</i>		2	1.3		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		2	1.2		
<i>Verticordia eriocephala</i>		1.5	1.5		
<i>Hakea francisiana</i>		1	3		
<i>Rinzia torquata</i>	P3 (DBCA list)	1	1.3		
<i>Euryomyrtus maidenii</i>		1	0.3		
<i>Persoonia saundersiana</i>		0.5	1.7		
<i>Acacia yorkkrakinensis</i> subsp. <i>acrita</i>		0.1	1.7		
<i>Thryptomene kochii</i>		0.1	1.6		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	1.3		
<i>Drosera andersoniana</i>		0.1	1		
<i>Adenanthos argyreus</i>		0.1	0.6		
<i>Verticordia chrysantha</i>		0.1	0.5		
<i>Baeckea grandibracteata</i>		0.1	0.4		
<i>Phebalium lepidotum</i>		0.1	0.4		
<i>Verticordia stenopetala</i>	P3 (DBCA list)	0.1	0.3		
<i>Calytrix duplistipulata</i>		0.1	0.2		
<i>Halgania lavandulacea</i>		0.1	0.2		
<i>Jacksonia nematoclada</i>		0.1	0.15		
<i>Hakea minyma</i>		0	1.7		
<i>Grevillea paradoxa</i>		0	1.4		
<i>Hibbertia eatoniae</i>				1	0.5
<i>Baeckea elderiana</i>				0.1	1.2
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)				0.1	1.2
<i>Melaleuca hamata</i>				0.1	2
<i>Rinzia torquata</i>	P3 (DBCA list)			0.1	1.3
<i>Verticordia eriocephala</i>				0.1	1
<i>Grevillea stenobotrya</i>				0.1	2

Site details			
Site	PR36	Position (WGS84)	-31.474577, 119.525928
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	granite rocks, quartz

Observation details - visit 1 (20 Nov 2019)			
Sample description	Mallee woodland of <i>Eucalyptus tenera</i> over tall shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> , and <i>Melaleuca</i> tall woodland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> and <i>Melaleuca</i>		
Habitat	mallee woodland		
Disturbance	litter		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	60	Tree cover (%)	45
Shrub cover (%)	30	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	20-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

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Species (20)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus tenera</i>		27.5	17.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		25	2.75		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		15	2.75		
<i>Melaleuca hamata</i>		15	2		
<i>Santalum acuminatum</i>		1	2.5		
<i>Acacia acuminata</i>		1	2.25		
<i>Templetonia ceracea</i>		1	0.4		
<i>Acacia nigripilosa</i> subsp. <i>nigripilosa</i>		0.3	1		
<i>Olearia muelleri</i>		0.3	0.4		
<i>Daviesia argillacea</i>		0.1	1.5		
<i>Phebalium drummondii</i>	P3 (DBCA list)	0.1	0.5		
<i>Eremophila granitica</i>		0.1	0.5		
<i>Thryptomene kochii</i>		0.1	0.45		
<i>Exocarpos aphyllus</i>		0.1	0.4		
<i>Euryomyrtus maidenii</i>		0.1	0.2		
<i>Thysanotus manglesianus</i>		0.1	0.1		
<i>Eucalyptus vittata</i>				0.1	20
<i>Drosera andersoniana</i>				0.1	0.5
<i>Melaleuca acuminata</i> subsp. <i>acuminata</i>				0.1	2.5
<i>Hibbertia eatoniae</i>				2	0.3

Site details			
Site	PR37	Position (WGS84)	-31.084056, 119.504615
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	1	Rock type	quartz

Observation details - visit 1 (17 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus salmonophloia</i> and <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> , over open shrubland of <i>Eremophila ionantha</i> and <i>Templetonia ceracea</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	25	Tree cover (%)	20
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	17-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (15)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salmonophloia</i>		10	20		
<i>Templetonia ceracea</i>		7.5	0.6		
<i>Eremophila ionantha</i>		5	1		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		0.5	5		
<i>Santalum acuminatum</i>		0.1	1.6		
<i>Scaevola spinescens</i>		0.1	0.6		
<i>Olearia muelleri</i>		0.1	0.4		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.3		
<i>Austrostipa platychaeta</i>		0.1	0.3		
<i>Maireana georgei</i>		0.1	0.2		
<i>Sclerolaena fusiformis</i>		0.1	0.15		
<i>Sclerolaena diacantha</i>		0.1	0.1		
<i>Acacia merrallii</i>		0	0.4		
<i>Rhagodia drummondii</i>				0.1	0.8
<i>Maireana trichoptera</i>				0.1	0.1

Site details			
Site	PR38	Position (WGS84)	-31.328136, 119.511498
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (19 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus pileata</i> over tall shrubland <i>Allocasuarina spinosissima</i> and <i>Callitris preissii</i> over low shrubland of <i>Melaleuca cordata</i> , <i>Drummondita hassellii</i> , and <i>Euryomyrtus maidenii</i>		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	70	Tree cover (%)	35
Shrub cover (%)	45	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	19-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (23)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Drummondita hassellii</i>		15	0.7		
<i>Allocasuarina spinosissima</i>		10	2.5		
<i>Thryptomene kochii</i>		5	1		
<i>Callitris preissii</i>		4	3.5		
<i>Phebalium ?drummondii</i>	P3 (DBCA list)	3	0.6		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		1.5	1.1		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		1	4.5		
<i>Hakea multilineata</i>		1	3.5		
<i>Melaleuca cordata</i>		0.5	0.6		
<i>Acacia resinimarginea</i>		0.3	2.5		
<i>Euryomyrtus maidenii</i>		0.3	0.35		
<i>Santalum acuminatum</i>		0.1	2.4		
<i>Melaleuca hamata</i>		0.1	2.3		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		0.1	2		
<i>Leptomeria preissiana</i>		0.1	1.8		
<i>Leptospermum fastigiatum</i>		0.1	1.6		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	0.6		
<i>Micromyrtus erichsenii</i>		0.1	0.5		
<i>Schoenus hexandrus</i>		0.1	0.3		
<i>Eucalyptus pileata</i>				12.6	5.5
<i>Euryomyrtus maidenii</i>				3	0.6
<i>Persoonia saundersiana</i>				0.1	2
<i>Hakea francisiana</i>				0.1	3

Site details			
Site	PR39	Position (WGS84)	-31.190186, 119.507544
Slope	negligible	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (14 Nov 2019)			
Sample description	Scattered mallees of <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> over tall shrubland of <i>Allocasuarina corniculata</i> over shrubland of <i>Euryomyrtus maidenii</i> .		
Habitat	shrubland		
Disturbance	vehicle tracks		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	70	Tree cover (%)	40
Shrub cover (%)	40	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	14-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (26)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina corniculata</i>		25	2.3		
<i>Euryomyrtus maidenii</i>		10	0.3		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		7.5	3		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		3	5		
<i>Acacia resinimarginea</i>		1	4.5		
<i>Melaleuca cordata</i>		1	1.2		
<i>Drummondita hassellii</i>		0.5	0.6		
<i>Acacia resinosa</i>		0.1	3		
<i>Leptospermum fastigiatum</i>		0.1	2.5		
<i>Hakea multilineata</i>		0.1	2		
<i>Acacia stereophylla</i> var. <i>stereophylla</i>		0.1	1.8		
<i>Callitris preissii</i>		0.1	1.8		
<i>Malleostemon roseus</i>		0.1	0.7		
<i>Acacia longispinea</i>		0.1	0.7		
<i>Phebalium drummondii</i>	P3 (DBCA list)	0.1	0.5		
<i>Euryomyrtus leptospermoides</i>		0.1	0.5		
<i>Astus subroseus</i>		0.1	0.4		
<i>Homalocalyx pulcherrimus</i>		0.1	0.25		
<i>Verticordia gracilis</i>	P3 (DBCA list)			0.1	0.2
<i>Micromyrtus erichsenii</i>				0.1	1
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>				0.1	1
<i>Baeckea elderiana</i>				4	1.4
<i>Styphelia hamulosa</i>				0.1	0.5
<i>Thryptomene kochii</i>				5	1.2
<i>Hakea minyma</i>				0.5	3
<i>Acacia beauverdiana</i>				1.5	3

Site details			
Site	PR40-R	Position (WGS84)	-31.359917, 119.5121
Slope	negligible	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (19 Nov 2019)			
Sample description	Scattered mallees of <i>Eucalyptus pileata</i> and <i>E. leptopoda</i> over tall shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> and <i>Hakea multilineata</i> over <i>Thryptomene kochii</i> .		
Habitat	mallee woodland		
Disturbance	firebreak, vehicle tracks		
Vegetation condition	Very Good	Fire age	relatively recent (1-5 years)
Total veg. cover (%)	40	Tree cover (%)	30
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	19-Nov-2019	unbounded	David Leach

Species (28)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus pileata</i>		7.5	6		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		5	6		
<i>Acacia yorkkrakinensis</i> subsp. <i>acrita</i>		4	2		
<i>Thryptomene kochii</i>		4	1.2		
<i>Hakea francisiana</i>		3	2.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		2	2.5		
<i>Melaleuca hamata</i>		2	2		
<i>Hakea multilineata</i>		1	2.5		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		1	1.2		
<i>Grevillea paradoxa</i>		0.5	0.6		
<i>Phebalium tuberculosum</i>		0.3	0.6		
<i>Melaleuca cordata</i>		0.3	0.5		
<i>Persoonia helix</i>		0.1	1.5		
<i>Acacia steedmanii</i> subsp. <i>steedmanii</i>		0.1	1.5		
<i>Leptomeria preissiana</i>		0.1	1.5		
<i>Acacia assimilis</i> subsp. <i>assimilis</i>		0.1	1.5		
<i>Melaleuca laxiflora</i>		0.1	1.5		
<i>Hakea minyma</i>		0.1	1.4		
<i>Westringia cephalantha</i>		0.1	1		
<i>Lepidosperma sanguinolentum</i>		0.1	0.5		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Baeckea elderiana</i>		0.1	0.4		
<i>Euryomyrtus leptospermoides</i>		0.1	0.4		
<i>Rytidosperma setaceum</i>		0.1	0.3		
<i>Hibbertia eatoniae</i>		0.1	0.3		
<i>Goodenia pinifolia</i>		0.1	0.2		
<i>Euryomyrtus maidenii</i>		0.1	0.2		
<i>Thysanotus manglesianus</i>		0.1	0.05		

Site details			
Site	PR41-R	Position (WGS84)	-31.403078, 119.514497
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (19 Nov 2019)			
Sample description	Open <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> woodland over tall <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i> and <i>Allocasuarine corniculata</i> shrubland over mid <i>Thryptomene kochii</i> and <i>Euromyrtus maidenii</i> shrubs		
Habitat	open woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	5
Shrub cover (%)	35	Grass cover (%)	0.1
Herb cover (%)	0.5		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	19-Nov-2019	unbounded	David Leach

Species (19)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		25	2		
<i>Allocasuarina corniculata</i>		15	2.25		
<i>Thryptomene kochii</i>		10	1.3		
<i>Euryomyrtus maidenii</i>		7.5	0.2		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		5	5		
<i>Melaleuca hamata</i>		5	2.5		
<i>Melaleuca cordata</i>		1	0.6		
<i>Drummondita hassellii</i>		1	0.5		
<i>Hibbertia eatoniae</i>		1	0.4		
<i>Eucalyptus tenera</i>		0.5	6		
<i>Micromyrtus erichsenii</i>		0.5	1		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.5	0.6		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		0.1	3		
<i>Hakea multilineata</i>		0.1	3		
<i>Melaleuca ctenoides</i>		0.1	2		
<i>Acacia nigripilosa</i> subsp. <i>nigripilosa</i>		0.1	1		
<i>Phebalium lepidotum</i>		0.1	0.6		
<i>Euryomyrtus leptospermoides</i>		0.1	0.5		
<i>Halgania lavandulacea</i>		0.1	0.2		

Site details			
Site	PR42	Position (WGS84)	-31.445444, 119.520723
Slope	gentle	Topography	undulating plain
Soil colour	grey-white	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (20 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> over <i>Allocasuarina spinosissima</i> , <i>A. acutivalvis</i> subsp. <i>acutivalvis</i> over low shrubland of <i>Euryomyrtus maidenii</i> , <i>Drummondii</i>		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	80	Tree cover (%)	55
Shrub cover (%)	40	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	20-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (27)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		30	2.5		
<i>Thryptomene kochii</i>		15	1.7		
<i>Callitris preissii</i>		10	2.5		
<i>Euryomyrtus maidenii</i>		10	0.2		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		7.5	7.5		
<i>Hakea minyma</i>		5	1.75		
<i>Melaleuca cordata</i>		2.5	1.2		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		2	4		
<i>Acacia yorkkrakinensis</i> subsp. <i>acrita</i>		1	3		
<i>Phebalium lepidotum</i>		1	1		
<i>Drummondita hassellii</i>		1	0.6		
<i>Acacia nigripilosa</i> subsp. <i>nigripilosa</i>		0.3	1.8		
<i>Persoonia coriacea</i>		0.3	1.2		
<i>Hakea multilineata</i>		0.1	3.5		
<i>Persoonia saundersiana</i>		0.1	1.4		
<i>Micromyrtus erichsenii</i>		0.1	1.3		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	1.2		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1		
<i>Melaleuca calyptroides</i>		0.1	1		
<i>Persoonia helix</i>		0.1	1		
<i>Homalocalyx pulcherrimus</i>		0.1	0.4		
<i>Schoenus hexandrus</i>		0.1	0.2		
<i>Baeckea muricata</i>		0.1			
<i>Grevillea paradoxa</i>		0	6		
<i>Drosera andersoniana</i>				0.1	0.2
<i>Leptomeria preissiana</i>				0.1	2.2
<i>Baeckea elderiana</i>				10	1.5

Site details			
Site	PR43	Position (WGS84)	-31.282508, 119.511594
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (18 Nov 2019)			
Sample description	Shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> , <i>A. campestris</i> , <i>A. spinosissima</i> , and <i>Hakea minyma</i> over low shrubland of <i>Melaleuca calyptroides</i> over rushland of <i>Scho</i>		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	60	Tree cover (%)	1
Shrub cover (%)	60	Grass cover (%)	25
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	18-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	21-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

Prepared for Mineral Resources Ltd

Species (36)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Melaleuca calyptroides</i>		15	0.5		
<i>Hakea minyma</i>		10	1.4		
<i>Ecdeiocolea monostachya</i>		10	0.5		
<i>Allocasuarina campestris</i>		5	1.5		
<i>Schoenus subaphyllus</i>		5	0.4		
<i>Lepidobolus preissianus</i>		5	0.15		
<i>Borya constricta</i>		2.5	0.05		
<i>Hakea platysperma</i>		1	1.2		
<i>Banksia audax</i>		1	1.2		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		0.5	2.5		
<i>Acacia desertorum</i> var. <i>nudipes</i>	P3 (DBC list)	0.1	1.8		
<i>Allocasuarina spinosissima</i>		0.1	1.5		
<i>Micromyrtus erichsenii</i>		0.1	1.5		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1		
<i>Beaufortia puberula</i>		0.1	1		
<i>Calothamnus gilesii</i>		0.1	0.6		
<i>Conospermum stoechadis</i>		0.1	0.6		
<i>Melaleuca cordata</i>		0.1	0.5		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.4		
<i>Chamaexeros macranthera</i>		0.1	0.3		
<i>Verticordia chrysantha</i>		0.1	0.3		
<i>Hibbertia conspicua</i>		0.1	0.3		
<i>Baeckea grandibracteata</i>		0.1	0.3		
<i>Triodia scariosa</i>		0.1	0.3		
<i>Platysace trachymenioides</i>		0.1	0.25		
<i>Baeckea muricata</i>				0.1	0.3
<i>Conostylis bealiana</i>				1	0.15
<i>Drosera andersoniana</i>				0.1	0.1
<i>Grevillea hookeriana</i> subsp. <i>hookeriana</i>				0.1	0.7
<i>Haemodorum ?discolor</i>				0.1	0.2
<i>Jacksonia nematoclada</i>				0.1	0.3
<i>Mesomelaena preissii</i>				5	0.4
<i>Patersonia rudis</i> subsp. <i>velutina</i>				0.1	0.3
<i>Styphelia hamulosa</i>				5	0.5
<i>Thysanotus patersonii</i>				0.1	0.3
<i>Gompholobium viscidulum</i>				0.1	0.4

Site details			
Site	PR44	Position (WGS84)	-31.334821, 119.511592
Slope	negligible	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (19 Nov 2019)			
Sample description	Tall shrubland of <i>Allocasuarina spinosissima</i> over low shrubland of <i>Drummondita hassellii</i> , <i>Isopogon scabriusculus</i> subsp. <i>pubiflorus</i> and <i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i> over open grasslan		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	80	Tree cover (%)	70
Shrub cover (%)	5	Grass cover (%)	15
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	19-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (33)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		70	2.25		
<i>Schoenus hexandrus</i>		15	0.2		
<i>Ecdeiocolea monostachya</i>		10	0.4		
<i>Drummondita hassellii</i>		2.5	0.7		
<i>Isopogon scabriusculus</i> subsp. <i>pubifloris</i>		1	1.3		
<i>Lepidobolus preissianus</i>		1	0.2		
<i>Hakea multilineata</i>		0.1	1.8		
<i>Petrophile merrallii</i>		0.1	1.25		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1		
<i>Persoonia coriacea</i>		0.1	1		
<i>Beaufortia puberula</i>		0.1	0.6		
<i>Micromyrtus erichsenii</i>		0.1	0.5		
<i>Hakea minyma</i>		0.1	0.5		
<i>Schoenus subaphyllus</i>		0.1	0.5		
<i>Patersonia rudis</i> subsp. <i>velutina</i>		0.1	0.5		
<i>Lepidosperma rigidulum</i>		0.1	0.4		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.4		
<i>Melaleuca cordata</i>		0.1	0.4		
<i>Lepidosperma lyonsii</i>	P1 (DBCA list)	0.1	0.4		
<i>Platysace trachymenioides</i>		0.1	0.3		
<i>Schoenus</i> sp. A1 Boorabbin (K.L. Wilson 2581)		0.1	0.3		
<i>Lepidosperma</i> aff. <i>gahnoides</i>		0.1	0.2		
<i>Scaevola restiacea</i> subsp. <i>restiacea</i>		0.1	0.2		
<i>Lomandra effusa</i>		0.1	0.2		
<i>Xanthorrhoea nana</i>		0	1		
<i>Glischrocaryon aureum</i>		0	0.4		
<i>Lepidosperma drummondii</i>		0	0.3		
<i>Leucopogon hamulosus</i>				0.1	0.4
<i>Drosera andersoniana</i>				0.1	0.1
<i>Conostylis bealiana</i>				0.1	0.4
<i>Halgania lavandulacea</i>				0.1	0.15
<i>Thryptomene kochii</i>				0.1	0.5
<i>Euryomyrtus maidenii</i>				0.1	0.3

Site details			
Site	PR45	Position (WGS84)	-30.987327, 119.504066
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (17 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus salubris</i> and <i>E. oleosa</i> subsp. <i>oleosa</i> over shrubland of <i>Eremophila scoparia</i> , <i>E. ionantha</i> , and <i>Acacia nyssophylla</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	40
Shrub cover (%)	15	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	17-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (24)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		30	20		
<i>Eremophila scoparia</i>		6	1.8		
<i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>		4	8		
<i>Olearia muelleri</i>		2	0.4		
<i>Maireana thesioides</i>		2	0.05		
<i>Eremophila ionantha</i>		1	2		
<i>Grevillea acuaria</i>		1	0.25		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		0.1	0.5		
<i>Acacia nyssophylla</i>		0.1	0.4		
<i>Rhagodia drummondii</i>		0.1	0.3		
<i>Maireana georgei</i>		0.1	0.3		
<i>Austrostipa platychaeta</i>		0.1	0.3		
<i>Rytidosperma setaceum</i>		0.1	0.2		
<i>Sclerolaena diacantha</i>		0.1	0.1		
<i>Ptilotus halophilus</i>		0.1	0.05		
<i>Senna artemisioides</i> subsp. <i>x artemisioides</i>		0	0.7		
<i>Atriplex vesicaria</i>		0	0.3		
<i>Maireana carnososa</i>		0	0.05		
<i>Acacia merrallii</i>				0	0.1
<i>Centipeda crateriformis</i> subsp. <i>compacta</i>				0.1	0.05
<i>Thysanotus manglesianus</i>				0.1	0.1
<i>Maireana trichoptera</i>				0.1	0.15
<i>Podolepis capillaris</i>				0.1	0.1
<i>Exocarpos aphyllus</i>				0.1	1

Site details			
Site	PR46-R	Position (WGS84)	-30.929197, 119.501151
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (17 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus salubris</i> over shrubland of <i>Eremophila scoparia</i> and <i>E. ionantha</i> and <i>Exocarpos aphyllus</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	25
Shrub cover (%)	20	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	17-Nov-2019	unbounded	David Leach

Species (15)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		25	20		
<i>Eremophila scoparia</i>		10	1.6		
<i>Ptilotus obovatus</i>		2.5	0.3		
<i>Eremophila ionantha</i>		2	1.2		
<i>Olearia muelleri</i>		1.5	0.4		
<i>Exocarpos aphyllus</i>		1	1.6		
<i>Rhagodia drummondii</i>		1	0.3		
<i>Acacia tetragonophylla</i>		0.5	1		
<i>Atriplex nummularia</i>		0.3	1		
<i>Thysanotus</i> sp. Twining Wheatbelt (N.H. Brittan 81/29)		0.1	0.3		
<i>Ptilotus divaricatus</i>		0.1	0.3		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.3		
<i>Rytidosperma setaceum</i>		0.1	0.25		
<i>Maireana georgei</i>		0.1	0.2		
<i>Maireana thesioides</i>		0.1	0.15		

Site details			
Site	PR47	Position (WGS84)	-31.576535, 119.52822
Slope	negligible	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (28 Nov 2019)			
Sample description	Open low mallee woodland of <i>Eucalyptus pileata</i> over diverse shrubland of <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i> , <i>Melaleuca hamata</i> and <i>Drummondita hassellii</i> .		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	70	Tree cover (%)	30
Shrub cover (%)	50	Grass cover (%)	0
Herb cover (%)	1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	28-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (21)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus pileata</i>		30	4		
<i>Melaleuca hamata</i>		20	1.25		
<i>Jacksonia nematoclada</i>		10	0.15		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		5	1.5		
<i>Phebalium filifolium</i>		3	0.4		
<i>Leptomeria preissiana</i>		2.5	1.5		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		2.5	0.5		
<i>Allocasuarina spinosissima</i>		2.5	0.4		
<i>Melaleuca hamata</i>		1	1		
<i>Hakea multilineata</i>		1	1		
<i>Hakea erecta</i>		1	0.8		
<i>Drummondita hassellii</i>		1	0.4		
<i>Phebalium lepidotum</i>		1	0.4		
<i>Melaleuca calyptroides</i>		1	0.4		
<i>Euryomyrtus maidenii</i>		0.5	0.2		
<i>Dodonaea bursariifolia</i>		0.1	1		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.5		
<i>Boronia ternata</i> var. <i>ternata</i>		0.1	0.4		
<i>Callitris preissii</i>		0.1	0.3		
<i>Acacia enervia</i> subsp. <i>enervia</i>				0.2	0.6
<i>Micromyrtus erichsenii</i>				0.1	0.6

Site details			
Site	PR48	Position (WGS84)	-31.597137, 119.527262
Slope	gentle	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (29 Nov 2019)			
Sample description	Shrubland of <i>Allocasuarina corniculata</i> , <i>A. acutivalvis</i> subsp. <i>acutivalvis</i> , <i>Beaufortia orbifolia</i> , <i>Melaleuca cordata</i> and <i>Thryptomene kochii</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	relatively recent (1-5 years)
Total veg. cover (%)	75	Tree cover (%)	2
Shrub cover (%)	75	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	29-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	25-Jul-2020	20m x 20m	Shenade Findlay

Species (18)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina corniculata</i>		40	1		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		20	1.4		
<i>Melaleuca cordata</i>		10	1		
<i>Thryptomene kochii</i>		10	0.4		
<i>Beaufortia orbifolia</i>		7.5	1.3		
<i>Grevillea paradoxa</i>		2	0.6		
<i>Grevillea pterosperma</i>		1.5	2		
<i>Persoonia helix</i>		0.5	1		
<i>Acacia neurophylla</i> subsp. <i>erugata</i>		0.1	1.2		
<i>Acacia assimilis</i> subsp. <i>assimilis</i>		0.1	1.1		
<i>Hakea minyma</i>		0.1	1		
<i>Baeckea elderiana</i>		0.1	0.8		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.5		
<i>Drosera andersoniana</i>		0.1	0.1		
<i>Grevillea stenobotrya</i>				0.1	0.6
<i>Hibbertia eatoniae</i>				1	0.3
<i>Isopogon scabriusculus</i> subsp. <i>pubifloris</i>				0.1	0.5
<i>Persoonia coriacea</i>				0.1	0.6

Site details			
Site	PR49	Position (WGS84)	-31.181352, 119.507172
Slope	negligible	Topography	plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none
Observation details - visit 2 (22 Jul 2020)			
Sample description	Tall closed shrubland of <i>Allocasuarina corniculata</i> and <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> over <i>Baeckia elderiana</i> and <i>Thryptomene kochii</i> shrubland over <i>Euryomyrtus maideni</i> .		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	14-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (16)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina corniculata</i>		40	2.5		
<i>Euryomyrtus maidenii</i>		10	0.3		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		2	3		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		1	5		
<i>Leptospermum fastigiatum</i>		0.1	2		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		0.1	2		
<i>Melaleuca cordata</i>		0.1	1		
<i>Verticordia helmsii</i>		0.1	0.5		
<i>Drummondita hassellii</i>		0.1	0.5		
<i>Homalocalyx pulcherrimus</i>		0.1	0.3		
<i>Callitris preissii</i>		0	2		
<i>Melaleuca hamata</i>				0.1	3
<i>Micromyrtus erichsenii</i>				0.1	1.3
<i>Baeckea elderiana</i>				0.5	1.8
<i>Thryptomene kochii</i>				1	1
<i>Thysanotus manglesianus</i>				0.1	0.1

Site details			
Site	PR50	Position (WGS84)	-31.304921, 119.51155
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (18 Nov 2019)			
Sample description	Closed shrubland of <i>Allocasuarina spinosissima</i> and <i>Micromyrtus erichsenii</i> over groundstorey of <i>Ecdeiocola monostachya</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	70	Tree cover (%)	10
Shrub cover (%)	65	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	18-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	21-Jul-2020	20m x 20m	Shenade Findlay

Species (32)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		65	1.9		
<i>Ecdeiocolea monostachya</i>		12.5	0.4		
<i>Micromyrtus erichsenii</i>		2	1.5		
<i>Styphelia hamulosa</i>		2	0.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		1.5	2.5		
<i>Melaleuca calyptroides</i>		1.5	0.4		
<i>Hakea minyma</i>		1	1.6		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		1	1.5		
<i>Lepidobolus preissianus</i>		1	0.3		
<i>Euryomyrtus maidenii</i>		1	0.2		
<i>Schoenus subaphyllus</i>		0.2	0.4		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		0.1	1.9		
<i>Santalum acuminatum</i>		0.1	1.8		
<i>Hakea platysperma</i>		0.1	0.5		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	0.4		
<i>Stirlingia</i> sp.		0.1	0.3		
<i>Platysace trachymenioides</i>		0.1	0.3		
<i>Chamaexeros macranthera</i>		0.1	0.2		
<i>Schoenus hexandrus</i>		0.1	0.15		
<i>Hibbertia eatoniae</i>		0.1	0.1		
<i>Petrophile merrallii</i>		0	1		
<i>Triodia scariosa</i>		0	0.2		
<i>Baeckea grandibracteata</i>				0.1	0.3
<i>Borya constricta</i>				0.1	0.1
<i>Hibbertia ancistrophylla</i>				0.1	0.4
<i>Drosera andersoniana</i>				0.1	0.1
<i>Hibbertia conspicua</i>				0.2	0.2
<i>Patersonia rudis</i> subsp. <i>velutina</i>				0.1	0.3
<i>Grevillea excelsior</i>				0.1	1.2
<i>Haemodorum ?discolor</i>				0.1	0.2
<i>Leptomeria preissiana</i>				0.1	0.2
<i>Conostylis bealiana</i>				0.1	0.1

Site details			
Site	PR51	Position (WGS84)	-31.346866, 119.511731
Slope	negligible	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (19 Nov 2019)			
Sample description	Tall shrubland of <i>Acacia corniculata</i> and <i>Callitris preissii</i> over shrubland <i>Melaleuca cordata</i> , <i>Euryomyrtus maidenii</i> and <i>Thryptomene kochii</i> .		
Habitat	shrubland		
Disturbance	none, vehicle tracks		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	65	Tree cover (%)	20
Shrub cover (%)	50	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	19-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (21)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina corniculata</i>		35	2.5		
<i>Thryptomene kochii</i>		17.5	1.2		
<i>Allocasuarina spinosissima</i>		10	2.5		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		5	1.8		
<i>Euryomyrtus maidenii</i>		4	0.2		
<i>Melaleuca cordata</i>		3	1.2		
<i>Callitris preissii</i>		1.5	3.25		
<i>Grevillea paradoxa</i>		1	1		
<i>Lepidosperma sanguinolentum</i>		1	0.7		
<i>Drummondita hassellii</i>		1	0.6		
<i>Styphelia hamulosa</i>		1	0.5		
<i>Baeckea muricata</i>		1	0.4		
<i>Calytrix duplistipulata</i>		1	0.4		
<i>Micromyrtus erichsenii</i>		0.1	1		
<i>Verticordia chrysantha</i>		0.1	0.8		
<i>Cassylia glabella</i> forma <i>casuarinae</i>		0.1	0.5		
<i>Homalocalyx pulcherrimus</i>		0.1	0.3		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.2		
<i>Verticordia roei</i> subsp. <i>meiogona</i>	P1 (DBCA list)			0.1	0.4
<i>Verticordia mitodes</i>	P3 (DBCA list)			0.1	0.2
<i>Euryomyrtus leptospermoides</i>				0.1	1.2

Site details			
Site	PR52	Position (WGS84)	-31.212945, 119.508817
Slope	gentle	Topography	undulating plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (13 Nov 2019)			
Sample description	Tall shrubland of <i>Allocasuarina spinosissima</i> , <i>Grevillea excelsior</i> over shrubland of <i>Euryomyrtus maidenii</i> and <i>Drummondita hasselii</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	65	Tree cover (%)	25
Shrub cover (%)	40	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	13-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (27)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		25	1.85		
<i>Thryptomene kochii</i>		10	1.5		
<i>Drummondita hassellii</i>		5	0.7		
<i>Grevillea excelsior</i>		4	3		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		2	3		
<i>Acacia neurophylla</i> subsp. <i>neurophylla</i>		2	1.4		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		1	1.5		
<i>Melaleuca hamata</i>		1	1.2		
<i>Euryomyrtus maidenii</i>		1	0.2		
<i>Micromyrtus erichsenii</i>		0.1	1.7		
<i>Melaleuca calyptroides</i>		0.1	1		
<i>Persoonia inconspicua</i>		0.1	1		
<i>Persoonia helix</i>		0.1	1		
<i>Callitris preissii</i>		0.1	1		
<i>Melaleuca cordata</i>		0.1	0.6		
<i>Baeckea muricata</i>		0.1	0.3		
<i>Homalocalyx pulcherrimus</i>		0.1	0.3		
<i>Lepidosperma diurnum</i>		0.1	0.3		
<i>Schoenus hexandrus</i>		0.1	0.15		
<i>Cassytha glabella</i> forma <i>glabella</i>		0.1			
<i>Baeckea elderiana</i>				0.1	1.1
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>				0.1	0.6
<i>Isopogon scabriusculus</i> subsp. <i>pubifloris</i>				0.2	1.2
<i>Verticordia gracilis</i>	P3 (DBCA list)			0.1	0.4
<i>Styphelia serratifolia</i>				0.1	0.6
<i>Verticordia chrysantha</i>				0.1	0.4
<i>Hakea minyma</i>				0.1	1

Site details			
Site	PR53	Position (WGS84)	-31.237313, 119.510178
Slope	negligible	Topography	plain
Soil colour	brown, yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (13 Nov 2019)			
Sample description	Scattered <i>Eucalyptus aspratitis</i> over tall <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> and <i>Euryomyrtus maidenii</i> .		
Habitat	shrubland		
Disturbance	vehicle tracks		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	85	Tree cover (%)	60
Shrub cover (%)	25	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	13-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (27)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		60	3		
<i>Melaleuca hamata</i>		7.5	1.75		
<i>Hibbertia eatoniae</i>		4	0.4		
<i>Eucalyptus aspratilis</i>		2.5	4		
<i>Baeckea elderiana</i>		2.5	1		
<i>Allocasuarina corniculata</i>		1	2		
<i>Melaleuca laxiflora</i>		1	1.2		
<i>Phebalium megaphyllum</i>		1	0.5		
<i>Phebalium drummondii</i>	P3 (DBCA list)	1	0.5		
<i>Leucopogon</i> sp. <i>Boorabbin</i> (K.R. Newbey 8374)		0.1	1.2		
<i>Hakea minyma</i>		0.1	1		
<i>Acacia resinosa</i>		0.1	1		
<i>Grevillea paradoxa</i>		0.1	1		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.7		
<i>Drummondita hassellii</i>		0.1	0.5		
<i>Calothamnus gilesii</i>		0.1	0.5		
<i>Melaleuca cordata</i>		0.1	0.4		
<i>Calytrix birdii</i>		0.1	0.4		
<i>Cassytha glabella</i> forma <i>glabella</i>		0.1	0.1		
<i>Thryptomene kochii</i>				2.5	1
<i>Acacia nivea</i>				0.1	0.4
<i>Drosera andersoniana</i>				0.1	0.1
<i>Micromyrtus erichsenii</i>				0.1	0.7
<i>Phebalium filifolium</i>				0.1	0.8
<i>Schoenus hexandrus</i>				0.1	0.1
<i>Stenanthemum stipulosum</i>				0.1	0.4
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>				0.1	1

Site details			
Site	PR54	Position (WGS84)	-31.038171, 119.504477
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (16 Nov 2019)			
Sample description	Shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> and <i>Acacia resinosa</i> over <i>Phebalium tuberculosum</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	relatively recent (1-5 years)
Total veg. cover (%)	75	Tree cover (%)	0
Shrub cover (%)	75	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

Prepared for Mineral Resources Ltd

Species (15)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		70	1.4		
<i>Acacia resinosa</i>		12.5	1.3		
<i>Phebalium tuberosum</i>		1	0.4		
<i>Philothea brucei</i> subsp. <i>brucei</i>		0.5	0.5		
<i>Acacia acuminata</i>		0.1	1		
<i>Hakea recurva</i> subsp. <i>arida</i>		0.1	0.6		
<i>Grevillea paradoxa</i>		0.1	0.4		
<i>Drosera andersoniana</i>		0.1	0.15		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.05		
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>		0	5		
<i>Prostanthera semiteres</i> subsp. <i>semiteres</i>				0.1	0.4
<i>Phebalium filifolium</i>				0.1	0.5
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)				0.1	0.4
<i>Hakea multilineata</i>				0.1	1.3
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>				0.1	1

Site details			
Site	PR55	Position (WGS84)	-31.070029, 119.504572
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (17 Nov 2019)			
Sample description	Scattered mallees of <i>Eucalyptus</i> sp. over shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> , <i>Acacia resinimarginea</i> , <i>A. yorkrakinensis</i> subsp. <i>acrita</i> and <i>Grevillea excelsior</i>		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	55	Tree cover (%)	5
Shrub cover (%)	55	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	17-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (28)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		12.5	1.5		
<i>Eucalyptus</i> sp. sp.		7.5	3		
<i>Grevillea excelsior</i>		2	1.8		
<i>Acacia resinimarginea</i>		2	1.2		
<i>Thryptomene kochii</i>		2	0.6		
<i>Acacia yorkkrakinensis</i> subsp. <i>acrita</i>		1.5	1.2		
<i>Leptomeria preissiana</i>		1	1.6		
<i>Melaleuca cordata</i>		1	1		
<i>Callitris preissii</i>		1	0.6		
<i>Drummondita hassellii</i>		1	0.4		
<i>Leptospermum fastigiatum</i>		0.1	2.5		
<i>Hakea multilineata</i>		0.1	1.5		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.6		
<i>Phebalium megaphyllum</i>		0.1	0.5		
<i>Grevillea paradoxa</i>		0.1	0.5		
<i>Mirbelia seorsifolia</i>		0.1	0.3		
<i>Euryomyrtus maidenii</i>		0.1	0.2		
<i>Leucopogon</i> sp. <i>Coolgardie</i> (M. Hislop & F. Hort MH 3197)		0.1	0.2		
<i>Acacia assimilis</i> subsp. <i>assimilis</i>		0	1		
<i>Acacia longispinea</i>				0.1	1.5
<i>Baeckea elderiana</i>				0.1	2
<i>Calothamnus gilesii</i>				0.1	0.5
<i>Cheiranthra filifolia</i>				0.1	0.6
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>				0.1	0.3
<i>Thysanotus manglesianus</i>				0.1	0.1
<i>Phebalium lepidotum</i>				0.1	0.4
<i>Tetrapora tenuiramea</i>				0.1	1
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>				0.1	2.5

Site details			
Site	PR56	Position (WGS84)	-31.101357, 119.504703
Slope	negligible	Topography	plain
Soil colour	brown, yellow	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (14 Nov 2019)			
Sample description	Tall shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> over shrubland of <i>Phebalium canaliculatum</i> and <i>Thryptomene kochii</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	85	Tree cover (%)	45
Shrub cover (%)	45	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	14-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (17)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Thryptomene kochii</i>		60	1.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		35	3.5		
<i>Allocasuarina corniculata</i>		5	3		
<i>Phebalium canaliculatum</i>		4	1.7		
<i>Persoonia coriacea</i>		1	2		
<i>Euryomyrtus leptospermoides</i>		1	0.5		
<i>Hakea multilineata</i>		0.1	2.5		
<i>Leptospermum fastigiatum</i>		0.1	2		
<i>Acacia resinimarginea</i>		0.1	1.5		
<i>Grevillea paradoxa</i>		0.1	1.2		
<i>Melaleuca hamata</i>		0.1	0.5		
<i>Homalocalyx thryptomenoides</i>		0.1	0.5		
<i>Homalocalyx pulcherrimus</i>		0.1	0.3		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.05		
<i>Calocephalus multiflorus</i>		0.1	0.02		
<i>Baeckea elderiana</i>				0.1	1.2
<i>Hibbertia eatoniae</i>				0.1	0.5

Site details			
Site	PR57	Position (WGS84)	-31.611779, 119.536998
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (30 Nov 2019)			
Sample description	Open woodland of <i>Melaleuca lateriflora</i> , <i>Eucalyptus cylindriflora</i> and <i>E. salubris</i> over shrubland of <i>A. colletoides</i> , <i>Santalum acuminatum</i> and <i>Grevillea acuaria</i> .		
Habitat	open woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	45	Tree cover (%)	40
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	30-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	25-Jul-2020	20m x 20m	Shenade Findlay

Species (27)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Melaleuca lateriflora</i>		20	4		
<i>Eucalyptus cylindriflora</i>		10	4		
<i>Eucalyptus salubris</i>		5	20		
<i>Grevillea acuaria</i>		5	0.3		
<i>Acacia colletioides</i>		4	1.5		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		2	0.05		
<i>Santalum acuminatum</i>		1	2.5		
<i>Scaevola spinescens</i>		1	1		
<i>Melaleuca acuminata</i> subsp. <i>acuminata</i>		0.5	3		
<i>Alyxia buxifolia</i>		0.5	2.5		
<i>Acacia enervia</i> subsp. <i>enervia</i>		0.1	1.2		
<i>Dianella revoluta</i> var. <i>divaricata</i>		0.1	0.6		
<i>Austrostipa nodosa</i>		0.1	0.4		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		0.1	0.4		
<i>Phebalium drummondii</i>	P3 (DBCA list)	0.1	0.3		
<i>Melaleuca johnsonii</i>		0.1	0.2		
<i>Podolepis capillaris</i>		0.1	0.1		
<i>Wurmbea tenella</i>				0.1	0.05
<i>Olearia muelleri</i>				0.1	0.4
<i>Eremophila granitica</i>				0.1	1
<i>Pterostylis roensis</i>				0.1	0.1
<i>Chamaexeros macranthera</i>				0.1	0.3
<i>Austrostipa platychaeta</i>				0.1	0.2
<i>Ptilotus drummondii</i>				0.1	0.1
<i>Rytidosperma caespitosum</i>				0.1	0.1
<i>Trachymene cyanopetala</i>				0.1	0.1
<i>Melaleuca calyptroides</i>				5	3

Site details			
Site	PR58	Position (WGS84)	-31.593017, 119.526523
Slope	gentle	Topography	undulating plain
Soil colour	brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (29 Nov 2019)			
Sample description	Mallee woodland of <i>Eucalyptus tenera</i> and <i>E. loxophleba</i> subsp. <i>lissophloia</i> over open shrubland of <i>Westringia cephalantha</i> , <i>Grevillea paradoxa</i> , and <i>Phebalium tuberosum</i> .		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	40
Shrub cover (%)	12	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	29-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (25)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus tenera</i>		20.5	12		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		15	6		
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>		5	15		
<i>Phebalium tuberculosum</i>		5	1		
<i>Eucalyptus sheathiana</i>		2.5	15		
<i>Grevillea paradoxa</i>		2.5	1		
<i>Callitris columellaris</i>		1	2		
<i>Westringia cephalantha</i>		1	1.2		
<i>Acacia hemiteles</i>		0.5	1		
<i>Olearia muelleri</i>		0.5	0.25		
<i>Homalocalyx thryptomenoides</i>		0.1	1.6		
<i>Phebalium megaphyllum</i>		0.1	0.8		
<i>Austrostipa nodosa</i>		0.1	0.3		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.3		
<i>Grevillea acuaria</i>		0.1	0.3		
<i>Rytidosperma setaceum</i>		0.1	0.25		
<i>Styphelia serratifolia</i>		0.1	0.2		
<i>Alyxia buxifolia</i>		0.1	0.1		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1			
<i>Drosera andersoniana</i>				0.1	0.3
<i>Grevillea stenobotrya</i>				0.1	0.5
<i>Hibbertia eatoniae</i>				1.5	0.3
<i>Beyeria sulcata</i> var. <i>gracilis</i>				0.1	1.2
<i>Micromyrtus racemosa</i>				0.1	1.5
<i>Eucalyptus celastroides</i> subsp. <i>celastroides</i>				0	10

Site details			
Site	PR59	Position (WGS84)	-31.491913, 119.527421
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus longissima</i> , <i>E. celastroides</i> subsp. <i>celastroides</i> and <i>E. polita</i> over open shrubland of <i>Santalum acuminatum</i> , <i>Eremophila scoparia</i> , <i>E. ionanth</i>		
Habitat	woodland		
Disturbance	exploration (drill pads and access tracks), vehicle tracks		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	35
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	27-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

Prepared for Mineral Resources Ltd

Species (16)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus longissima</i>		35	20		
<i>Templetonia ceracea</i>		5	0.6		
<i>Olearia muelleri</i>		4	0.4		
<i>Eucalyptus polita</i>		1	15		
<i>Eucalyptus celastroides</i> subsp. <i>celastroides</i>		1	5		
<i>Santalum acuminatum</i>		1	2.5		
<i>Eremophila scoparia</i>		1	2		
<i>Eremophila ionantha</i>		1	1.5		
<i>Acacia poliochroa</i>		0.5	0.4		
<i>Austrostipa platychaeta</i>		0.1	0.4		
* <i>Centaurea melitensis</i>	Weed	0.1	0.1		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		0	4		
<i>Sclerolaena diacantha</i>				0.1	0.2
<i>Senna artemisioides</i> subsp. <i>x artemisioides</i>				0.1	1.1
<i>Austrostipa nodosa</i>				0.1	0.2
<i>Maireana radiata</i>				0.1	0.4

Site details			
Site	PR60	Position (WGS84)	-31.53838, 119.528385
Slope	negligible	Topography	undulating plain
Soil colour	brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (28 Nov 2019)			
Sample description	Open mixed woodland of <i>Eucalyptus salmonophloia</i> and <i>E. tenera</i> over tall shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> , over shrubland of <i>Templetonia ceracea</i> , <i>Acacia merrallii</i> and		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	50
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	28-Nov-2019	unbound	David Leach
Quadrat	2	26-Jul-2020	20m x 20m	Shenade Findlay

Species (18)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salmonophloia</i>		30	20		
<i>Eucalyptus tenera</i>		15	8		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		7	4.5		
<i>Templetonia ceracea</i>		4.5	0.6		
<i>Phebalium tuberosum</i>		2.5	0.6		
<i>Daviesia argillacea</i>		1	1.7		
<i>Amyema miquelii</i>		1	0		
<i>Eucalyptus capillosa</i>		0.3	15		
<i>Grevillea huegelii</i>		0.3	1.5		
<i>Eucalyptus salubris</i>		0.1	10		
<i>Acacia merrallii</i>		0.1	0.25		
<i>Wilsonia humilis</i>		0.1	0.15		
<i>Eremophila ionantha</i>		0	1.6		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0	0.3		
<i>Acacia erinacea</i>		0	0.2		
<i>Olearia muelleri</i>				0.1	0.3
<i>Austrostipa platychaeta</i>				0.1	0.2
<i>Sclerolaena diacantha</i>				0.1	0.1

Site details			
Site	PR61-R	Position (WGS84)	-31.418426, 119.516427
Slope	negligible	Topography	undulating plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (19 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus pileata</i> , <i>E. tenera</i> and <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> over <i>Olearia muelleri</i> .		
Habitat	woodland		
Disturbance	large-scale clearing, litter		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	35
Shrub cover (%)	20	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	19-Nov-2019	unbounded	David Leach

Species (14)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus pileata</i>		30	25		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		15	4		
<i>Eucalyptus tenera</i>		5	5		
<i>Melaleuca lateriflora</i>		5	3.5		
<i>Olearia muelleri</i>		2.5	0.4		
<i>Eucalyptus salubris</i>		1	5		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.5	0.3		
<i>Melaleuca hamata</i>		0.1	1.5		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Rytidosperma setaceum</i>		0.1	0.3		
<i>Acacia merrallii</i>		0.1	0.3		
<i>Austrostipa nodosa</i>		0.1	0.2		
<i>Podolepis capillaris</i>		0.1	0.1		
<i>Darwinia</i> sp. <i>Karonie</i> (K. Newbey 8503)		0	0.2		

Site details			
Site	PR62-R	Position (WGS84)	-31.412664, 119.515377
Slope	negligible	Topography	undulating plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (20 Nov 2019)			
Sample description	Open mixed <i>Eucalyptus</i> woodland over <i>Melaleuca pauperiflora</i> subsp. <i>fastigata</i> , <i>M. hamata</i> , and <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> over low woodland of <i>Acacia merralii</i> an		
Habitat	woodland		
Disturbance	large-scale clearing, litter, vehicle tracks		
Vegetation condition	Very Good	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	50
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	20-Nov-2019	unbounded	David Leach

Species (24)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		7.5	3.5		
<i>Eucalyptus tenera</i>		5	10		
<i>Olearia muelleri</i>		2.5	0.3		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		2	2.5		
<i>Melaleuca hamata</i>		2	2		
<i>Eucalyptus cylindrocarpa</i>		1	15		
<i>Melaleuca lateriflora</i>		1	2.5		
<i>Acacia merrallii</i>		1	0.4		
<i>Eucalyptus salmonophloia</i>		0.5	6		
<i>Eucalyptus flocktoniae</i>		0.1	12.5		
<i>Calothamnus gilesii</i>		0.1	2.5		
<i>Santalum acuminatum</i>		0.1	2.5		
<i>Exocarpos aphyllus</i>		0.1	2		
<i>Alyxia buxifolia</i>		0.1	2		
<i>Grevillea huegelii</i>		0.1	1.3		
<i>Acacia hemiteles</i>		0.1	0.6		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Thysanotus manglesianus</i>		0.1	0.2		
<i>Austrostipa nodosa</i>		0.1	0.2		
<i>Podolepis capillaris</i>		0.1	0.15		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.15		
<i>Acacia enervia</i> subsp. <i>enervia</i>		0.1			
<i>Atriplex vesicaria</i>		0.1			
<i>Rhagodia spinescens</i>		0.1			

Site details			
Site	PR63	Position (WGS84)	-30.936702, 119.511241
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (15 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus salubris</i> , and <i>E. salmonophloia</i> over open shrubland of <i>Eremophila scoparia</i> over low shrubland of <i>Atriplex nummularia</i> and <i>Rhagodia spinescens</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	40	Tree cover (%)	35
Shrub cover (%)	15	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	15-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Species (22)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		25	20		
<i>Eremophila scoparia</i>		7.5	2		
<i>Rhagodia spinescens</i>		5	0.4		
<i>Eucalyptus salmonophloia</i>		4	20		
<i>Acacia enervia</i> subsp. <i>enervia</i>		1	2.5		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>		1	2.1		
<i>Maireana georgei</i>		0.5	0.3		
<i>Sclerolaena diacantha</i>		0.5	0.1		
<i>Atriplex nummularia</i>		0.3	1		
<i>Exocarpos aphyllus</i>		0.2	2		
<i>Senna artemisioides</i> subsp. <i>x artemisioides</i>		0.1	1.2		
<i>Olearia muelleri</i>		0.1	0.4		
<i>Maireana trichoptera</i>		0.1	0.4		
<i>Ptilotus obovatus</i>		0.1	0.3		
<i>Austrostipa platychaeta</i>		0.1	0.3		
<i>Ptilotus exaltatus</i>		0.1	0.2		
<i>Aristida</i> sp.		0.1	0.2		
<i>Thysanotus manglesianus</i>		0.1	0.1		
<i>Maireana triptera</i>				0.2	0.3
<i>Rytidosperma setaceum</i>				0.1	0.2
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>				0.1	1.1
<i>Atriplex vesicaria</i>				0.5	0.4

Site details			
Site	PR64	Position (WGS84)	-31.006379, 119.504309
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (17 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus griffithsii</i> and <i>E. loxophleba</i> subsp. <i>lissophloia</i> over open shrubland of <i>Acacia tetragonophylla</i> and <i>Olearia muelleri</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	50
Shrub cover (%)	8	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	17-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (34)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus griffithsii</i>		35	15		
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>		10	20		
<i>Olearia muelleri</i>		7.5	0.4		
<i>Acacia tetragonophylla</i>		3	1.75		
<i>Olearia exiguifolia</i>		2.5	0.4		
<i>Scaevola spinescens</i>		1	1.4		
<i>Acacia asepal</i>	P2 (DBCA list)	0.3	0.4		
<i>Senna artemisioides</i> subsp. <i>x artemisioides</i>		0.1	1		
<i>Dianella revoluta</i> var. <i>divaricata</i>		0.1	0.6		
<i>Cassytha racemosa</i>		0.1	0.5		
<i>Thysanotus manglesianus</i>		0.1	0.4		
<i>Rhagodia drummondii</i>		0.1	0.4		
<i>Austrostipa platychaeta</i>		0.1	0.4		
<i>Lomandra effusa</i>		0.1	0.4		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		0.1	0.35		
<i>Grevillea acuaria</i>		0.1	0.3		
<i>Ptilotus obovatus</i>		0.1	0.3		
<i>Acacia erinacea</i>		0.1	0.3		
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>		0.1	0.25		
<i>Poaceae</i> sp.		0.1	0.2		
<i>Ptilotus schwartzii</i>		0.1	0.2		
<i>Podolepis capillaris</i>		0.1	0.15		
<i>Sclerolaena diacantha</i>		0.1	0.1		
<i>Cephalopterum drummondii</i>		0.1	0.1		
<i>Sclerolaena fusiformis</i>		0.1	0.05		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.05		
<i>Amhipogon caricinus</i> var. <i>caricinus</i>		0.1	0.05		
<i>Monachather paradoxus</i>		0.1			
<i>Eremophila scoparia</i>				0.1	0.8
<i>Pterostylis setulosa</i>	Weed			0.1	0.05
<i>Olearia pimeleoides</i>				0.1	0.5
<i>Podolepis capillaris</i>					
<i>Ptilotus halophilus</i>				0.1	0.05
<i>Maireana georgei</i>				0.1	0.2

Site details			
Site	PR65-R	Position (WGS84)	-31.379026, 119.512936
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (19 Nov 2019)			
Sample description	Open mallee woodland of <i>Eucalyptus pileata</i> and <i>E. leptopoda</i> subsp. <i>leptopoda</i> over shrubland of <i>Allocasuarina spinosissima</i> , <i>Thryptomene kochii</i> and <i>Acacia yorckrakinensis</i> subsp. <i>acrita</i>		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	60	Tree cover (%)	20
Shrub cover (%)	50	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	19-Nov-2019	unbounded	David Leach

Species (24)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		40	1.9		
<i>Thryptomene kochii</i>		15	1.2		
<i>Eucalyptus pileata</i>		7.5	5		
<i>Euryomyrtus maidenii</i>		3	0.2		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		2.5	6		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		2	1.6		
<i>Micromyrtus erichsenii</i>		1	1.2		
<i>Drummondita hassellii</i>		1	0.5		
<i>Schoenus hexandrus</i>		1	0.2		
<i>Acacia assimilis</i> subsp. <i>assimilis</i>		0.5	1.5		
<i>Hakea multilineata</i>		0.5	1.3		
<i>Acacia nigripilosa</i> subsp. <i>nigripilosa</i>		0.1	13		
<i>Leptospermum fastigiatum</i>		0.1	1.6		
<i>Persoonia saundersiana</i>		0.1	1.4		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	1.2		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1		
<i>Persoonia helix</i>		0.1	0.8		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.7		
<i>Melaleuca calyptroides</i>		0.1	0.6		
<i>Styphelia hamulosa</i>		0.1	0.5		
<i>Homalocalyx pulcherrimus</i>		0.1	0.3		
<i>Schoenus</i> sp. A1 Boorabbin (K.L. Wilson 2581)		0.1	0.25		
<i>Lepidobolus preissianus</i>		0.1	0.2		
<i>Euryomyrtus leptospermoides</i>		0.1	0.2		

Site details			
Site	PR66	Position (WGS84)	-31.161673, 119.505893
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (13 Nov 2019)			
Sample description	Open <i>Eucalyptus</i> woodland of <i>E. salmonophloia</i> and <i>E. longicornis</i> over tall open <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> over open low shrubland of <i>Templetonia ceracea</i> .		
Habitat	open woodland		
Disturbance	vehicle tracks		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	40
Shrub cover (%)	20	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	13-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	22-Jul-2020	20m x 20m	Shenade Findlay

Species (29)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salmonophloia</i>		20	25		
<i>Eremophila granitica</i>		2	1.5		
<i>Olearia muelleri</i>		1.5	0.4		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		1	4		
<i>Santalum acuminatum</i>		1	2.5		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>		1	2		
<i>Exocarpos aphyllus</i>		1	1.25		
<i>Scaevola spinescens</i>		0.5	0.75		
<i>Acacia merrallii</i>		0.5	0.3		
<i>Eucalyptus longicornis</i>		0.1	25		
<i>Eremophila scoparia</i>		0.1	1		
<i>Rhagodia drummondii</i>		0.1	0.5		
<i>Senna artemisioides</i> subsp. <i>filifolia</i>		0.1	0.5		
<i>Acacia erinacea</i>		0.1	0.4		
<i>Templetonia ceracea</i>		0.1	0.4		
<i>Austrostipa elegantissima</i>		0.1	0.3		
<i>Maireana georgei</i>		0.1	0.3		
<i>Austrostipa scabra</i>		0.1	0.25		
<i>Maireana trichoptera</i>		0.1	0.1		
<i>Sclerolaena fusiformis</i>		0.1	0.1		
<i>Eucalyptus salubris</i>				0.1	12
<i>Podolepis capillaris</i>				0.1	0.01
<i>Pterostylis</i> sp.				0.1	0.01
<i>Ptilotus holosericeus</i>				0.1	0.01
<i>Daucus glochidiatus</i>				0.1	0.1
<i>Calandrinia</i> sp.				0.1	0.01
<i>Sclerolaena diacantha</i>				0.1	0.1
<i>Alyxia buxifolia</i>				0.1	2.2
<i>Grevillea acuaria</i>				0.1	0.2

Site details			
Site	PR67-R	Position (WGS84)	-31.503118, 119.528339
Slope	gentle	Topography	undulating plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Nov 2019)			
Sample description	Mallee woodland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over shrubland of <i>Allocasuarina campestris</i> over <i>Westringia cephalantha</i> , <i>Olearia muelleri</i> and <i>Euryomyrtus maidenii</i> .		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	25
Shrub cover (%)	40	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	27-Nov-2019	unbounded	David Leach

Species (23)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina campestris</i>		50	1.8		
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>		35	15		
<i>Westringia cephalantha</i>		3	1		
<i>Phebalium ?drummondii</i>	P3 (DBCA list)	2.5	1		
<i>Acacia warramaba</i>		1	3.5		
<i>Olearia muelleri</i>		1	0.3		
<i>Lepidosperma drummondii</i>		1	0.3		
<i>Euryomyrtus maidenii</i>		1	0.3		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		0.5	3		
<i>Calothamnus gilesii</i>		0.1	3		
<i>Acacia acuminata</i>		0.1	3		
<i>Santalum acuminatum</i>		0.1	2		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	1.2		
<i>Grevillea paradoxa</i>		0.1	0.6		
<i>Grevillea huegelii</i>		0.1	0.5		
<i>Templetonia ceracea</i>		0.1	0.4		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.3		
<i>Hibbertia eatoniae</i>		0.1	0.3		
<i>Templetonia ceracea</i>		0.1	0.3		
<i>Acacia merrallii</i>		0.1	0.3		
<i>Acacia erinacea</i>		0.1	0.2		
<i>Halgania integerrima</i>		0.1	0.2		
<i>Stenanthemum bremerense</i>	P4 (DBCA list)	0.1	0.15		

Site details			
Site	PR68	Position (WGS84)	-31.054074, 119.504016
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (16 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus salubris</i> , <i>E. salmonphloia</i> , and <i>E. yilgarnensis</i> over open shrubland of <i>Scaevola spinescens</i> , <i>Westringia cephalantha</i> and <i>Templetonia ceracea</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	45
Shrub cover (%)	45	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	23-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

Prepared for Mineral Resources Ltd

Species (13)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		30	15		
<i>Eucalyptus salmonophloia</i>		7.5	20		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		3	8		
<i>Scaevola spinescens</i>		3	0.6		
<i>Templetonia ceracea</i>		2.5	0.4		
<i>Eucalyptus yilgarnensis</i>		2	12		
<i>Exocarpos aphyllus</i>		2	2.1		
<i>Eremophila scoparia</i>		1	1.5		
<i>Westringia cephalantha</i>		0.1	1.8		
<i>Eremophila ionantha</i>		0.1	0.6		
<i>Olearia muelleri</i>		0.1	0.4		
<i>Santalum lanceolatum</i>		0	1.5		
<i>Maireana georgei</i>				0.1	0.1

Site details			
Site	PR69	Position (WGS84)	-31.034495, 119.504079
Slope	negligible	Topography	plain
Soil colour	brown, yellow	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (16 Nov 2019)			
Sample description	Open mallee shrubland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over shrubland of <i>Acacia acuminata</i> , <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> and <i>Eremophila decipiens</i> subsp. <i>decipiens</i>		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	65	Tree cover (%)	8
Shrub cover (%)	70	Grass cover (%)	0
Herb cover (%)	1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	16-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	24-Jul-2020	20m x 20m	Shenade Findlay

Species (29)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia acuminata</i>		30	1.6		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		20	1.5		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		5	0.2		
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>		4	5		
<i>Calocephalus multiflorus</i>		2	0.05		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		1	1.2		
<i>Triodia scariosa</i>		1	0.2		
<i>Baeckea elderiana</i>		0.1	1.2		
<i>Dodonaea inaequifolia</i>		0.1	1.2		
<i>Eremophila ionantha</i>		0.1	1		
<i>Prostanthera grylloana</i>		0.1	1		
<i>Prostanthera semiteres</i> subsp. <i>semiteres</i>		0.1	0.6		
<i>Phebalium filifolium</i>		0.1	0.6		
<i>Dianella revoluta</i> var. <i>divaricata</i>		0.1	0.5		
<i>Grevillea paradoxa</i>		0.1	0.3		
<i>Borya constricta</i>		0.1	0.05		
<i>Pterostylis setulosa</i>	Weed			0.1	0.05
<i>Philothea brucei</i> subsp. <i>brucei</i>				5	0.8
<i>Drosera moorei</i>				0.1	0.1
<i>Drosera andersoniana</i>				0.1	0.1
<i>Leucopogon</i> sp. <i>outer wheatbelt (M. Hislop 30)</i>				0.1	0.4
<i>Micromyrtus racemosa</i>				0.1	1
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>				0.1	0.6
<i>Caladenia paradoxa</i>				0.1	0.1
<i>Scaevola spinescens</i>				0.1	0.7
<i>Arthropodium dyeri</i>				0.1	0.1
<i>Senna artemisioides</i> subsp. <i>x artemisioides</i>				0.1	0.5
<i>Wurmbea tenella</i>				0.1	0.05
<i>Cheiranthra filifolia</i>				0.1	0.8

Site details			
Site	PR70-R	Position (WGS84)	-31.535314, 119.528622
Slope	gentle	Topography	undulating plain
Soil colour	red-brown	Soil texture	loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (28 Nov 2019)			
Sample description	Mid <i>Melaleuca cordata</i> , <i>Allocasuarina corniculata</i> and <i>A. acutivalvis</i> subsp. <i>acutivalvis</i> shrubland over low <i>Baeckea elderiana</i> and <i>Hibbertia eatoniae</i> shrubs.		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Excellent	Fire age	moderate (>5 years)
Total veg. cover (%)	50	Tree cover (%)	0
Shrub cover (%)	55	Grass cover (%)	0
Herb cover (%)	0		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	28-Nov-2019	unbounded	David Leach

Species (13)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Baeckea elderiana</i>		30	1.7		
<i>Allocasuarina corniculata</i>		12.5	3		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		10	4		
<i>Hibbertia eatoniae</i>		5	0.4		
<i>Melaleuca cordata</i>		4	1.9		
<i>Eucalyptus rigidula</i>		2	8		
<i>Grevillea paradoxa</i>		2	1.5		
<i>Thryptomene kochii</i>		1	1.7		
<i>Persoonia saundersiana</i>		0.1	2		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.5		
<i>Baeckea</i> sp.		0.1	0.5		
<i>Leucopogon</i> sp. <i>Boorabbin</i> (K.R. Newbey 8374)		0.1	0.4		
<i>Drummondita hassellii</i>		0.1	0.4		

Site details			
Site	PR71-R	Position (WGS84)	-31.582319, 119.52762
Slope	moderate	Topography	breakaway
Soil colour	brown, whitish	Soil texture	loam
Rock cover (%)	0	Rock type	granite rocks, limestone

Observation details - visit 1 (29 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus capillosa</i> over shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> , <i>Acacia steedmanii</i> subsp. <i>steedmanii</i> and <i>Homalocalyx thryptomenoides</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Very Good	Fire age	not evident
Total veg. cover (%)	15	Tree cover (%)	5
Shrub cover (%)	7	Grass cover (%)	0
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	29-Nov-2019	unbounded	David Leach

Species (18)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus capillosa</i>		5	10		
<i>Callitris columellaris</i>		5	3		
<i>Melaleuca leiocarpa</i>		2	1.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		1	3.5		
<i>Acacia steedmanii</i> subsp. <i>steedmanii</i>		1	2		
<i>Acacia neurophylla</i> subsp. <i>erugata</i>		1	1.2		
<i>Styphelia serratifolia</i>		0.5	1		
<i>Gastrolobium parviflorum</i>		0.5	1		
<i>Phebalium megaphyllum</i>		0.5	0.5		
<i>Lepidosperma</i> sp. Mt Caudan (N. Gibson & M. Lyons 2081)	P1 (DBCA list)	0.5	0.2		
<i>Homalocalyx thryptomenoides</i>		0.1	1.8		
<i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>		0.1	1		
<i>Melaleuca cordata</i>		0.1	1		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.5		
<i>Grevillea acuaria</i>		0.1	0.4		
<i>Phebalium tuberculosum</i>		0.1	0.3		
<i>Styphelia serratifolia</i>		0.1	0.2		
<i>Schoenus hexandrus</i>		0.1	0.1		

Site details			
Site	PR72	Position (WGS84)	-31.601716, 119.526249
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (30 Nov 2019)			
Sample description	Scattered mallee woodland of <i>Eucalyptus burracoppinensis</i> over shrubland of <i>Allocasuarina spinosissima</i> , <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i> and <i>Thryptomene kochii</i> .		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	80	Tree cover (%)	2
Shrub cover (%)	80	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	30-Nov-2019	20 m x 20 m	David Leach
Quadrat	2	25-Jul-2020	20m x 20m	Shenade Findlay

Species (29)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		20	1		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		17.5	1.5		
<i>Thryptomene kochii</i>		10	0.5		
<i>Eucalyptus burracoppinensis</i>		7.5	2.5		
<i>Grevillea excelsior</i>		3	2.75		
<i>Jacksonia nematoclada</i>		3	0.2		
<i>Acacia hystrix</i> subsp. <i>hystrix</i>		2.5	1		
<i>Melaleuca cordata</i>		2	0.6		
<i>Melaleuca hamata</i>		2	0.5		
<i>Grevillea acuaria</i>		1.5	1		
<i>Persoonia coriacea</i>		1.5	0.6		
<i>Euryomyrtus maidenii</i>		1.5	0.2		
<i>Santalum acuminatum</i>		1	1.75		
<i>Leptomeria preissiana</i>		1	1.5		
<i>Hakea multilineata</i>		1	1.4		
<i>Hakea minyma</i>		1	1		
<i>Drummondita hassellii</i>		1	0.1		
<i>Micromyrtus erichsenii</i>		0.1	0.5		
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)		0.1	0.3		
<i>Boronia ternata</i> var. <i>ternata</i>		0.1	0.3		
<i>Melaleuca calyptroides</i>		0.1	0.2		
<i>Cyathostemon verrucosus</i>	P3 (DBCA list)	0.1	0.2		
<i>Calytrix duplistipulata</i>		0.1	0.2		
<i>Phebalium filifolium</i>		0.1	0.2		
<i>Rinzia</i> sp.		0.1	0.2		
<i>Leptosema daviesioides</i>				0.1	0.15
<i>Exocarpos aphyllus</i>				0.1	1.1
<i>Eucalyptus rigidula</i>				1	2
<i>Drosera andersoniana</i>				0.1	0.1

Site details			
Site	PR73	Position (WGS84)	-31.607624, 119.553184
Slope	gentle	Topography	hill slope
Soil colour	red-brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (30 Nov 2019)			
Sample description	Mixed woodland of <i>Eucalyptus salubris</i> , <i>E. salmonophloia</i> and <i>E. yilgarnensis</i> over <i>M. pauperiflora</i> subsp. <i>fastigiata</i> over a shrubland of <i>Alyxia buxifolia</i> , <i>Grevillea ac</i>		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	50
Shrub cover (%)	10	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	30-Nov-2019	20 m x 20 m	Andrew Perkins
Quadrat	2	25-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

Prepared for Mineral Resources Ltd

Species (36)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		20	10		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		12	6		
<i>Eucalyptus salmonophloia</i>		5	12		
<i>Eucalyptus yilgarnensis</i>		5	10		
<i>Alyxia buxifolia</i>		5	2.5		
<i>Grevillea acuaria</i>		4	0.3		
<i>Acacia hemiteles</i>		2	2		
<i>Acacia colletioides</i>		2	1.2		
<i>Santalum lanceolatum</i>		1.5	2.5		
<i>Acacia enervia</i> subsp. <i>enervia</i>		1	2.5		
<i>Exocarpos aphyllus</i>		1	2		
<i>Templetonia ceracea</i>		1	1		
<i>Acacia erinacea</i>		1	0.3		
<i>Eremophila drummondii</i>		0.2	0.7		
<i>Olearia muelleri</i>		0.2	0.3		
<i>Olearia pimeleoides</i>		0.1	0.7		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		0.1	0.6		
<i>Scaevola spinescens</i>		0.1	0.4		
<i>Lomandra effusa</i>		0.1	0.4		
<i>Austrostipa platychaeta</i>		0.1	0.3		
<i>Austrostipa scabra</i>		0.1	0.3		
<i>Calocephalus multiflorus</i>		0.1	0.1		
<i>Rytidosperma setaceum</i>		0.1	0.1		
<i>Thysanotus manglesianus</i>		0.1	0.1		
<i>Trachymene cyanopetala</i>		0.1	0.1		
<i>Ptilotus drummondii</i>		0.1	0.1		
<i>Goodenia pusilliflora</i>		0.1	0.1		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.1		
<i>Triglochin isingiana</i>		0.1	0.05		
<i>Crassula colorata</i> var. <i>colorata</i>		0.1	0.01		
<i>Eremophila ionantha</i>				0.1	1.5
<i>Acacia merrallii</i>				1	0.5
* <i>Erodium cicutarium</i>	Weed			0.1	0.05
<i>Pterostylis roensis</i>				0.1	0.1
<i>Wurmbea tenella</i>				0.1	0.05
<i>Dianella revoluta</i> var. <i>divaricata</i>				0.1	0.7

Site details			
Site	PR74	Position (WGS84)	-31.620787, 119.55152
Slope	gentle	Topography	hill slope
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (30 Nov 2019)			
Sample description	Open woodland of <i>Eucalyptus burracoppinensis</i> over tall shrubland of <i>Callitris columellaris</i> and <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i> over shrubland of <i>Thryptomene kochii</i> and <i>Melaleuca cordata</i> .		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	70	Tree cover (%)	60
Shrub cover (%)	15	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	30-Nov-2019	unbound	Andrew Perkins
Quadrat	2	25-Jul-2020	20m x 20m	Shenade Findlay

Species (28)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Callitris columellaris</i>		10	8		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		5	7		
<i>Thryptomene kochii</i>		5	2		
<i>Euryomyrtus maidenii</i>		5	0.3		
<i>Melaleuca cordata</i>		3	2		
<i>Melaleuca calyptroides</i>		3	1.2		
<i>Eucalyptus burracoppinensis</i>		2	4		
<i>Drummondita hassellii</i>		2	0.5		
<i>Persoonia saundersiana</i>		1.5	2.5		
<i>Acacia enervia</i> subsp. <i>enervia</i>		1	1.8		
<i>Hakea minyma</i>		1	1.5		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		1			
<i>Allocasuarina spinosissima</i>		0.5	1.8		
<i>Leptomeria preissiana</i>		0.2	1.8		
<i>Santalum lanceolatum</i>		0.1	1.7		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1.4		
<i>Micromyrtus erichsenii</i>		0.1	0.6		
<i>Hibbertia eatoniae</i>		0.1	0.5		
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	P3 (DBCA list)	0.1	0.4		
<i>Gompholobium viscidulum</i>		0.1	0.4		
<i>Banksia shanklandiorum</i>	P4 (DBCA list)			0.1	0.8
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>				0.1	2.8
<i>Beaufortia puberula</i>				0.1	1.2
<i>Drosera andersoniana</i>				0.1	0.05
<i>Eucalyptus sheathiana</i>				5	7
<i>Isopogon scabriusculus</i> subsp. <i>pubifloris</i>				0.1	0.7
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)				0.1	0.4
<i>Eucalyptus pileata</i>				12	8

Site details			
Site	PR75	Position (WGS84)	-31.617642, 119.547061
Slope	gentle	Topography	hill slope
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (30 Nov 2019)			
Sample description	Scattered <i>Eucalyptus rigidula</i> mallee woodland over <i>Allocasuarina spinosissima</i> shrubland over <i>Drummondita hassellii</i> and <i>Melaleuca calyptroides</i> .		
Habitat	shrubland		
Disturbance	none		
Vegetation condition	Pristine	Fire age	not evident
Total veg. cover (%)	60	Tree cover (%)	45
Shrub cover (%)	50	Grass cover (%)	0.1
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	30-Nov-2019	20 m x 20 m	Andrew Perkins
Quadrat	2	25-Jul-2020	20m x 20m	Shenade Findlay

Species (27)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus rigidula</i>		15	8		
<i>Allocasuarina spinosissima</i>		10	4		
<i>Drummondita hassellii</i>		4	0.5		
<i>Melaleuca calyptroides</i>		2	1		
<i>Eucalyptus incrassata</i>		1	4		
<i>Hakea francisiana</i>		1	3		
<i>Banksia shanklandiorum</i>	P4 (DBCA list)	1	1.2		
<i>Melaleuca hamata</i>		0.5	2.2		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.5	1		
<i>Acacia enervia</i> subsp. <i>enervia</i>		0.5	1		
<i>Euryomyrtus maidenii</i>		0.5	0.4		
<i>Callitris preissii</i>		0.1	1.8		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1		
<i>Melaleuca cordata</i>		0.1	1		
<i>Persoonia coriacea</i>		0.1	1		
<i>Gastrolobium spinosum</i>		0.1	1		
<i>Hibbertia exasperata</i>		0.1	0.5		
<i>Micromyrtus erichsenii</i>		0.1	0.5		
<i>Beaufortia puberula</i>		0.1	0.3		
<i>Calytrix duplistipulata</i>		0.1	0.2		
<i>Templetonia aculeata</i>		0.1	0.1		
<i>Thysanotus manglesianus</i>				0.1	0.05
Myrtaceae sp.				0.1	0.3
<i>Calytrix breviseta</i> subsp. <i>stipulosa</i>				0.1	
<i>Santalum lanceolatum</i>				0	2
<i>Beaufortia puberula</i>				0.1	0.5
<i>Thyridolepis mitchelliana</i>				0.1	0.15

Site details			
Site	PR80	Position (WGS84)	-31.610015, 119.545822
Slope	gentle	Topography	plain
Soil colour	yellow, brown-grey	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (25 Jul 2020)			
Sample description	Open <i>Eucalyptus sheathiana</i> and <i>E. pileata</i> woodland over tall <i>Allocasuarina spinossima</i> and <i>Acacia beauverdiana</i> shrubland over mid <i>Thryptomene kochii</i> shrubs over low <i>Euryomyrtus maidenii</i> sh		
Habitat	open woodland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	70	Tree cover (%)	60
Shrub cover (%)	40	Grass cover (%)	0.1
Herb cover (%)			



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	25-Jul-2020	20m x 20m	Shenade Findlay

Species (25)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Euryomyrtus maidenii</i>		30	0.5		
<i>Allocasuarina spinosissima</i>		25	3.5		
<i>Thryptomene kochii</i>		15	1.5		
<i>Melaleuca hamata</i>		10	7		
<i>Drummondita hassellii</i>		5	1		
<i>Acacia beauverdiana</i>		2	5		
<i>Eucalyptus sheathiana</i>		1	12		
<i>Eucalyptus pileata</i>		1	7		
<i>Santalum lanceolatum</i>		0.2	5		
<i>Callitris preissii</i>		0.1	4		
<i>Acacia colletioides</i>		0.1	1.5		
<i>Phebalium filifolium</i>		0.1	1.2		
<i>Melaleuca cordata</i>		0.1	1.2		
<i>Daviesia argillacea</i>		0.1	1.2		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	0.9		
<i>Grevillea paradoxa</i>		0.1	0.8		
<i>Persoonia coriacea</i>		0.1	0.7		
<i>Westringia cephalantha</i>		0.1	0.6		
<i>Hibbertia eatoniae</i>		0.1	0.5		
<i>Micromyrtus erichsenii</i>		0.1	0.5		
<i>Euryomyrtus leptospermoides</i>		0.1	0.5		
<i>Acacia</i> sp.		0.1	0.3		
<i>Drosera andersoniana</i>		0.1	0.3		
<i>Drosera moorei</i>		0.1	0.15		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		0.1	0.1		

Site details			
Site	PR81	Position (WGS84)	-31.613072, 119.538691
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sand, sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (25 Jul 2020)			
Sample description	<i>Eucalyptus pileata</i> mallee woodland over tall shrubland of <i>Allocasuarina spinosissima</i> over <i>Drummondita hassellii</i> and <i>Triodia rigidissima</i> .		
Habitat	woodland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	60	Tree cover (%)	40
Shrub cover (%)	30	Grass cover (%)	0.1
Herb cover (%)			

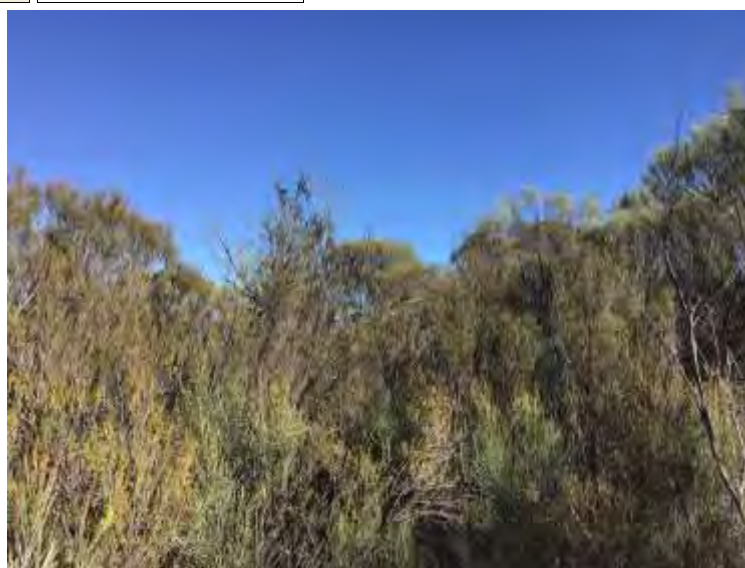


Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	25-Jul-2020	20m x 20m	Shenade Findlay

Species (30)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus pileata</i>		55	12		
<i>Beaufortia puberula</i>		2	1		
<i>Drummondita hassellii</i>		1	0.5		
<i>Triodia rigidissima</i>		1	0.4		
<i>Allocasuarina spinosissima</i>		0.5	2.5		
<i>Hibbertia pungens</i>		0.5	0.5		
<i>Callitris preissii</i>		0.1	4		
<i>Hakea multilineata</i>		0.1	4		
<i>Hakea minyma</i>		0.1	2		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1.8		
<i>Grevillea hookeriana</i> subsp. <i>apiciloba</i>		0.1	1.7		
<i>Acacia enervia</i> subsp. <i>enervia</i>		0.1	1.3		
<i>Persoonia coriacea</i>		0.1	1.2		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	1		
<i>Gastrolobium spinosum</i>		0.1	1		
<i>Verticordia eriocephala</i>		0.1	1		
<i>Phebalium filifolium</i>		0.1	0.6		
<i>Platysace trachymenioides</i>		0.1	0.6		
<i>Phebalium drummondii</i>	P3 (DBCA list)	0.1	0.5		
<i>Melaleuca calyptroides</i>		0.1	0.5		
<i>Lepidosperma diurnum</i>		0.1	0.5		
<i>Micromyrtus erichsenii</i>		0.1	0.4		
<i>Platysace trachymenioides</i>		0.1	0.4		
<i>Cryptandra crispula</i>	P3 (DBCA list)	0.1	0.4		
<i>Stenanthemum stipulosum</i>		0.1	0.4		
<i>Styphelia dielsiana</i>		0.1	0.4		
<i>Hibbertia eatoniae</i>		0.1	0.4		
<i>Gompholobium viscidulum</i>		0.1	0.3		
<i>Jacksonia nematoclada</i>		0.1	0.2		
<i>Templetonia aculeata</i>		0.1	0.2		

Site details			
Site	PR82-R	Position (WGS84)	-31.094301, 119.504957
Slope	negligible	Topography	plain
Soil colour	brown	Soil texture	clay loam, sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Jul 2020)			
Sample description	Tall shrubland of <i>Allocasuarina corniculata</i> and <i>A. spinosissima</i> over mid <i>Beackia elderiana</i> shrubland over low <i>Hibbertia eatoniae</i> .		
Habitat	shrubland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	long-unburnt (>10 years)
Total veg. cover (%)	85	Tree cover (%)	40
Shrub cover (%)	50	Grass cover (%)	0.1
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	27-Jul-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

Prepared for Mineral Resources Ltd

Species (14)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina corniculata</i>		30	4		
<i>Allocasuarina spinosissima</i>		20	3		
<i>Baeckea elderiana</i>		20	2		
<i>Acacia resinosa</i>		10	5		
<i>Acacia stereophylla</i> var. <i>stereophylla</i>		10	3.5		
<i>Hibbertia eatoniae</i>		3	0.5		
<i>Persoonia coriacea</i>		2	1.7		
<i>Thryptomene kochii</i>		0.1	2		
<i>Thryptomene kochii</i>		0.1	1		
<i>Grevillea paradoxa</i>		0.1	1		
<i>Phebalium megaphyllum</i>		0.1	0.4		
<i>Dianella revoluta</i> var. <i>divaricata</i>		0.1	0.4		
<i>Pterostylis setulosa</i>	Weed	0.1	0.1		
<i>Drosera andersoniana</i>		0.1	0.1		

Site details			
Site	PR83-R	Position (WGS84)	-31.140944, 119.505189
Slope	negligible	Topography	plain
Soil colour	light-brown, orange	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Jul 2020)			
Sample description	Mixed woodland of <i>Eucalyptus salubris</i> and <i>E. salmonophloia</i> over shrubland of <i>Eremophila ionantha</i> and <i>Olearia muelleri</i> .		
Habitat	woodland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	45	Tree cover (%)	30
Shrub cover (%)	15	Grass cover (%)	0.1
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	27-Jul-2020	unbounded	Shenade Findlay

Species (11)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		20	15		
<i>Eremophila ionantha</i>		7	0.7		
<i>Eucalyptus salmonophloia</i>		5	10		
<i>Sclerolaena diacantha</i>		5	0.2		
<i>Acacia hemiteles</i>		1	0.5		
<i>Olearia muelleri</i>		0.5	0.4		
<i>Maireana trichoptera</i>		0.2	0.1		
<i>Scaevola spinescens</i>		0.1	0.5		
<i>Sclerolaena fusiformis</i>		0.1	0.15		
<i>Maireana carnososa</i>		0.1	0.15		
<i>Maireana georgei</i>		0.1	0.1		

Site details			
Site	PR84	Position (WGS84)	-31.253444, 119.511271
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Jul 2020)			
Sample description	Tall shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> with scattered mallees of <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> over shrubland of <i>Calothamnus gilesii</i> , <i>Baeckea elderiana</i> and <i>Thryps</i>		
Habitat	shrubland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	long-unburnt (>10 years)
Total veg. cover (%)	85	Tree cover (%)	50
Shrub cover (%)	70	Grass cover (%)	0.1
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	27-Jul-2020	unbounded	Shenade Findlay

Species (21)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		30	3.5		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		5	4		
<i>Calothamnus gilesii</i>		5	2.5		
<i>Thryptomene kochii</i>		5	1.2		
<i>Baeckea elderiana</i>		2	1.1		
<i>Acacia yorkrakinensis</i> subsp. <i>acrita</i>		0.5	3		
<i>Acacia neurophylla</i> subsp. <i>erugata</i>		0.5	3		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.5	1.1		
<i>Hakea francisiana</i>		0.1	4		
<i>Callitris preissii</i>		0.1	3		
<i>Eucalyptus rigidula</i>		0.1	3		
<i>Grevillea paradoxa</i>		0.1	2		
<i>Hakea minyma</i>		0.1	1.7		
<i>Melaleuca cordata</i>		0.1	1.3		
<i>Petrophile merrallii</i>		0.1	1		
<i>Euryomyrtus maidenii</i>		0.1	0.7		
<i>Drummondita hassellii</i>		0.1	0.6		
<i>Micromyrtus erichsenii</i>		0.1	0.3		
<i>Hibbertia eatoniae</i>		0.1	0.2		
<i>Drosera andersoniana</i>		0.1	0.1		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	0.1		

Site details			
Site	PR86	Position (WGS84)	-31.32126, 119.51153
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Jul 2020)			
Sample description	<i>Eucalyptus tenera</i> and <i>E. pileata</i> over <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> over mid shrubland of <i>Grevillea paradoxa</i> and <i>Melaleuca cordata</i> over low <i>Hibbertia eatoniae</i> shru		
Habitat	shrubland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	long-unburnt (>10 years)
Total veg. cover (%)	75	Tree cover (%)	40
Shrub cover (%)	45	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	27-Jul-2020	20m x 20m	Shenade Findlay

Species (13)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		20	5		
<i>Eucalyptus tenera</i>		15	4		
<i>Melaleuca cordata</i>		10	3		
<i>Hibbertia eatoniae</i>		10	0.4		
<i>Grevillea paradoxa</i>		7	2		
<i>Eucalyptus pileata</i>		5	4		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		5	3		
<i>Santalum lanceolatum</i>		2	3		
<i>Drosera andersoniana</i>		0.2	0.2		
<i>Allocasuarina corniculata</i>		0.1	3		
<i>Baeckea elderiana</i>		0.1	1.5		
<i>Thryptomene kochii</i>		0.1	1		
<i>Thysanotus manglesianus</i>		0.1	0.1		

Site details			
Site	PR87	Position (WGS84)	-31.325273, 119.511848
Slope	negligible	Topography	plain
Soil colour	light-brown	Soil texture	clay loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Jul 2020)			
Sample description	Scattered mallee of <i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> over shrubland of <i>Acacia resinimarginea</i> , <i>Santalum lanceolatum</i> and <i>A. acuminata</i> .		
Habitat	shrubland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	moderate (>5 years)
Total veg. cover (%)	85	Tree cover (%)	75
Shrub cover (%)	15	Grass cover (%)	0.1
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	27-Jul-2020	unbounded	Shenade Findlay

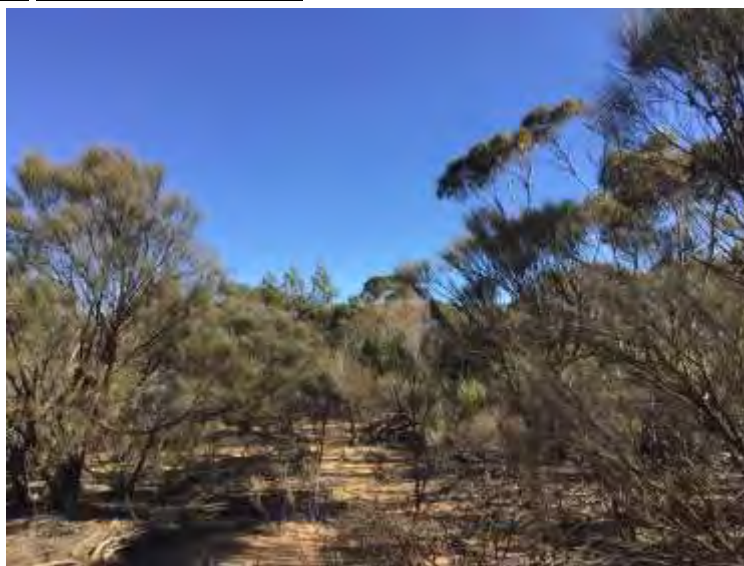
Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

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Species (11)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia resinimarginea</i>		50	4		
<i>Santalum lanceolatum</i>		5	3.5		
<i>Acacia acuminata</i>		5	3.2		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		1	6		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		1	2		
<i>Baeckea elderiana</i>		0.1	1.1		
<i>Thryptomene kochii</i>		0.1	1		
<i>Micromyrtus erichsenii</i>		0.1	0.2		
<i>Euryomyrtus maidenii</i>		0.1	0.2		
<i>Drosera andersoniana</i>		0.1	0.2		
<i>Pterostylis setulosa</i>	Weed	0.1	0.05		

Site details			
Site	PR88	Position (WGS84)	-31.338451, 119.511814
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (27 Jul 2020)			
Sample description	Open woodland of <i>Eucalyptus sheathiana</i> , <i>E. pileata</i> and <i>E. leptopoda</i> subsp. <i>leptopoda</i> over shrubland of <i>Callitris preissii</i> and <i>Allocasuarina spinosissima</i> over <i>Melaleuca cordat</i>		
Habitat	open woodland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	not recorded
Total veg. cover (%)	70	Tree cover (%)	40
Shrub cover (%)	40	Grass cover (%)	0.1
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	27-Jul-2020	unbounded	Shenade Findlay

Species (26)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		25	3.5		
<i>Callitris preissii</i>		20	6		
<i>Triodia scariosa</i>		10	0.2		
<i>Eucalyptus pileata</i>		7.5	5		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		7	6		
<i>Eucalyptus sheathiana</i>		5	4.5		
<i>Persoonia saundersiana</i>		0.5	2		
<i>Melaleuca cordata</i>		0.5	0.8		
<i>Acacia neurophylla</i> subsp. <i>erugata</i>		0.1	4		
<i>Santalum lanceolatum</i>		0.1	2.5		
<i>Persoonia inconspicua</i>		0.1	1.3		
<i>Grevillea didymobotrya</i> subsp. <i>didymobotrya</i>		0.1	1.2		
<i>Grevillea paradoxa</i>		0.1	1.1		
<i>Persoonia coriacea</i>		0.1	1		
<i>Cassytha glabella</i> forma <i>casuarinae</i>		0.1	1		
<i>Thryptomene kochii</i>		0.1	1		
<i>Lepidosperma drummondii</i>		0.1	0.6		
<i>Melaleuca calyptroides</i>		0.1	0.5		
<i>Euryomyrtus leptospermoides</i>		0.1	0.3		
<i>Baeckea muricata</i>		0.1	0.3		
<i>Micromyrtus erichsenii</i>		0.1	0.2		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.2		
<i>Euryomyrtus maidenii</i>		0.1	0.15		
<i>Schoenus hexandrus</i>		0.1	0.15		
<i>Lepidobolus preissianus</i>		0.1	0.15		
<i>Thysanotus manglesianus</i>		0.1	0.1		

Site details			
Site	PR89-R	Position (WGS84)	-31.043191, 119.505823
Slope	negligible	Topography	plateau
Soil colour	brown, yellow	Soil texture	clay loam
Rock cover (%)	0	Rock type	calcrete

Observation details - visit 1 (23 Jul 2020)			
Sample description	Mid scattered shrubs of <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> , over low scattered shrubs of <i>Leucopogon</i> sp. outer wheatbelt (M. Hislop 30), <i>Hibbertia eatoniae</i> , over <i>Borya constricta</i> , <i>Amphipogon c</i>		
Habitat	shrubland		
Disturbance	None evident		
Vegetation condition	Pristine	Fire age	long-unburnt (>10 years)
Total veg. cover (%)	20	Tree cover (%)	1
Shrub cover (%)	10	Grass cover (%)	0.1
Herb cover (%)	10		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	23-Jul-2020	unbounded	David Leach

Species (12)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Borya constricta</i>		7.5	0.1		
<i>Amphipogon caricinus</i> var. <i>caricinus</i>		5	0.15		
? <i>Tetrapora tenuiramea</i>		0.5	0.8		
<i>Leucopogon</i> sp. <i>outer wheatbelt</i> (M. Hislop 30)		0.5	0.6		
<i>Allocauarina acutivalvis</i> subsp. <i>acutivalvis</i>		0.1	2.5		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		0.1	1.8		
<i>Grevillea paradoxa</i>		0.1	1.2		
<i>Philothea brucei</i> subsp. <i>brucei</i>		0.1	1		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		0.1	0.8		
<i>Hibbertia eatoniae</i>		0.1	0.25		
<i>Xerolirion divaricata</i>		0.1	0.2		
<i>Lepidosperma</i> sp. <i>Mt Caudan</i> (N. Gibson & M. Lyons 2081)	P1 (DBCA list)	0.1	0.2		

Site details			
Site	PRI90	Position (WGS84)	-31.274286, 119.51742
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sand, sandy clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (25 Oct 2020)			
Sample description	Mid <i>Grevillea cagiana</i> , <i>Ecdeiocolea monostachya</i> and <i>Acacia rossei</i> shrubland over low <i>Mirbelia trichocalyx</i> and <i>Mirbelia trichocalyx</i> shrubs		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Excellent	Fire age	moderate (>5 years)
Total veg. cover (%)	65	Tree cover (%)	15
Shrub cover (%)	55	Grass cover (%)	0.1
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	25-Oct-2020	unbounded	Shenade Findlay

Species (29)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Ecdeiocolea monostachya</i>		20	1		
<i>Grevillea cagiana</i>		10	1.8		
<i>Acacia rossei</i>		5	1.5		
<i>Jacksonia nematoclada</i>		5	0.2		
<i>Mirbelia trichocalyx</i>		5	0.2		
<i>Melaleuca calyptroides</i>		2	0.4		
<i>Daviesia croniniana</i>		1	0.4		
<i>Grevillea didymobotrya</i>		0.5	0.7		
<i>Drummondita hassellii</i>		0.5	0.3		
<i>Baeckea grandibracteata</i>		0.5	0.2		
<i>Leucopogon hamulosus</i>		0.5	0.15		
<i>Acacia desertorum</i> var. <i>nudipes</i>	P3 (DBCA list)	0.1	1.5		
<i>Grevillea paradoxa</i>		0.1	0.5		
<i>Verticordia chrysantha</i>		0.1	0.4		
<i>Verticordia acerosa</i>		0.1	0.3		
<i>Leptomeria preissiana</i>		0.1	0.3		
<i>Lepidosperma lyonsii</i>	P1 (DBCA list)	0.1	0.3		
<i>Platysace trachymenioides</i>		0.1	0.3		
<i>Balaustion pulcherrimum</i>		0.1	0.25		
<i>Borya sphaerocephala</i>		0.1	0.25		
<i>Amphipogon caricinus</i>		0.1	0.2		
<i>Mesomelaena preissii</i>		0.1	0.2		
<i>Calytrix leschenaultii</i>		0.1	0.15		
<i>Synaphea interioris</i>		0.1	0.15		
<i>Desmocladius myriocladus</i>		0.1	0.15		
<i>Euryomyrtus maidenii</i>		0.1	0.15		
<i>Micromyrtus erichsenii</i>		0.1	0.15		
<i>Leptospermum roei</i>		0.1	0.15		
<i>Schoenus hexandrus</i>		0.1	0.1		

Site details			
Site	PRI91	Position (WGS84)	-31.270872, 119.51733
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sand, sandy clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (25 Oct 2020)			
Sample description	Tall open <i>Hakea erecta</i> shrubland over mid open <i>Melaleuca calyptroides</i> shrubland over low <i>Euryomyrtus maidenii</i> , <i>Desmocladius myriocladus</i> and <i>Hakea platysperma</i> shrubs.		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Excellent	Fire age	moderate (>5 years)
Total veg. cover (%)	75	Tree cover (%)	5
Shrub cover (%)	75	Grass cover (%)	0.1
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	25-Oct-2020	20m x 20m	Shenade Findlay

Species (36)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Melaleuca calyptroides</i>		15	1		
<i>Hakea erecta</i>		10	2.1		
<i>Euryomyrtus maidenii</i>		8	0.4		
<i>Desmocladius myriocladus</i>		7	0.15		
<i>Hakea platysperma</i>		5	2		
<i>Ecdeiocolea monostachya</i>		5	1.5		
<i>Drummondita hassellii</i>		5	0.8		
<i>Micromyrtus erichsenii</i>		3	3		
<i>Baeckea grandibracteata</i>		2	0.5		
<i>Hibbertia conspicua</i>		2	0.4		
<i>Isopogon scabriusculus</i>		1	1.5		
<i>Verticordia eriocephala</i>		1	1.2		
<i>Grevillea cagiana</i>		0.5	2.3		
<i>Allocasuarina spinosissima</i>		0.5	2.1		
<i>Melaleuca cordata</i>		0.5	0.5		
<i>Verticordia chrysantha</i>		0.2	0.6		
<i>Acacia yorkkrakinensis</i>		0.1	2.6		
<i>Acacia desertorum</i> var. <i>nudipes</i>	P3 (DBC list)	0.1	2		
<i>Banksia audax</i>		0.1	1.4		
<i>Grevillea didymobotrya</i>		0.1	1.3		
<i>Petrophile stricta</i>		0.1	1		
<i>Lysinema pentapetalum</i>		0.1	0.7		
<i>Petrophile merrallii</i>		0.1	0.7		
<i>Leptospermum roei</i>		0.1	0.6		
<i>Verticordia inclusa</i>		0.1	0.4		
<i>Patersonia rudis</i> subsp. <i>velutina</i>		0.1	0.4		
<i>Balaustion pulcherrimum</i>		0.1	0.4		
<i>Calytrix leschenaultii</i>		0.1	0.3		
<i>Grevillea acacioides</i>		0.1	0.3		
<i>Leucopogon hamulosus</i>		0.1	0.3		
<i>Mesomelaena preissii</i>		0.1	0.3		
<i>Verticordia picta</i>		0.1	0.25		
<i>Triodia scariosa</i>		0.1	0.2		
<i>Synaphea interioris</i>		0.1	0.15		
<i>Conostylis bealiana</i>		0.1	0.1		
<i>Schoenus hexandrus</i>		0.1	0.1		

Site details			
Site	PRI92	Position (WGS84)	-31.266374, 119.512834
Slope	gentle	Topography	undulating plain
Soil colour	light-brown	Soil texture	sandy clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (25 Oct 2020)			
Sample description	Tall <i>Allocasuarina acutivalvis</i> and <i>Acacia neurophylla</i> shrubland over mid <i>Thryptomene kochii</i> shrubland over low <i>Leucopogon</i> sp. outer wheatbelt (M. Hislop 30) and <i>Grevillea paradoxa</i> shrubs		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Excellent	Fire age	moderate (>5 years)
Total veg. cover (%)	90	Tree cover (%)	70
Shrub cover (%)	60	Grass cover (%)	0
Herb cover (%)	0		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Quadrat	1	25-Oct-2020	20m x 20m	Shenade Findlay

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

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Species (11)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Thryptomene kochii</i>		60	1.7		
<i>Allocasuarina acutivalvis</i>		40	4		
<i>Acacia neurophylla</i>		30	4		
<i>Leucopogon sp. outer wheatbelt (M. Hislop 30)</i>		0.2	0.9		
<i>Grevillea paradoxa</i>		0.1	2.2		
<i>Calothamnus gilesii</i>		0.1	1.4		
<i>Melaleuca hamata</i>		0.1	1.2		
<i>Melaleuca cordata</i>		0.1	1		
<i>Drummondita hassellii</i>		0.1	0.6		
<i>Micromyrtus erichsenii</i>		0.1	0.3		
<i>Schoenus hexandrus</i>		0.1	0.2		

Site details			
Site	PRI93-R	Position (WGS84)	-31.269063, 119.51344
Slope	negligible	Topography	plain
Soil colour	yellow	Soil texture	sand, sandy clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (25 Oct 2020)			
Sample description	Tall <i>Allocasuarina spinosissima</i> , <i>Callitris preissii</i> and <i>Grevillea didymobotrya</i> shrubland over low <i>Melaleuca calyptroides</i> shrubs		
Habitat	shrubland		
Disturbance	none,		
Vegetation condition	Excellent	Fire age	moderate (>5 years)
Total veg. cover (%)	70	Tree cover (%)	30
Shrub cover (%)	50	Grass cover (%)	0.1
Herb cover (%)	0.1		



Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	25-Oct-2020	unbounded	Shenade Findlay

Species (26)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		25	4		
<i>Callitris preissii</i>		5	4		
<i>Grevillea didymobotrya</i>		5	2		
<i>Melaleuca calyptroides</i>		5	1		
<i>Schoenus hexandrus</i>		2	0.1		
<i>Hakea erecta</i>		1	2		
<i>Drummondita hassellii</i>		1	0.8		
<i>Grevillea acacioides</i>		0.5	1		
<i>Melaleuca cordata</i>		0.5	1		
<i>Verticordia eriocephala</i>		0.5	0.5		
<i>Leucopogon hamulosus</i>		0.5	0.4		
<i>Euryomyrtus maidenii</i>		0.5	0.3		
<i>Ecdeiocolea monostachya</i>		0.2	0.8		
<i>Acacia desertorum</i> var. <i>nudipes</i>	P3 (DBCA list)	0.1	2		
<i>Leptospermum roei</i>		0.1	1.5		
<i>Thryptomene kochii</i>		0.1	1		
<i>Micromyrtus erichsenii</i>		0.1	0.4		
<i>Baeckea muricata</i>		0.1	0.4		
<i>Patersonia rudis</i> subsp. <i>velutina</i>		0.1	0.3		
<i>Petrophile merrallii</i>		0.1	0.3		
<i>Platysace trachymenioides</i>		0.1	0.3		
<i>Verticordia chrysantha</i>		0.1	0.3		
<i>Desmocladius myriocladus</i>		0.1	0.2		
<i>Conostylis bealiana</i>		0.1	0.2		
<i>Triodia scariosa</i>		0.1	0.2		
<i>Persoonia saundersiana</i>		0.1	0.15		

Site details			
Site	Rec01-R	Position (WGS84)	-31.153206, 119.505627
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none
Observation details - visit 1 (03 Oct 2019)			
Sample description	Open woodland of <i>Eucalyptus salubris</i> and <i>E. capillosa</i> over low <i>Acacia merrallii</i> and <i>Eremophila scoparia</i> shrubland.		
Habitat	open woodland		
Disturbance	none		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	30	Tree cover (%)	10
Shrub cover (%)	20	Grass cover (%)	0
Herb cover (%)	1		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	03-Oct-2019	unbound	David Leach

Species (18)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		7.5	15		
<i>Eucalyptus capillosa</i>		2.5	20		
<i>Exocarpos aphyllus</i>		1	2.25		
<i>Eremophila scoparia</i>		1	1.25		
<i>Acacia merrallii</i>		1	0.4		
<i>Olearia muelleri</i>		1	0.4		
<i>Grevillea acuaria</i>		1	0.4		
<i>Eucalyptus calycogona</i> subsp. <i>miraculum</i>		0.1	15		
<i>Acacia</i> sp.		0.1	2		
<i>Senna artemisioides</i> subsp. <i>filifolia</i>		0.1	1.5		
<i>Scaevola spinescens</i>		0.1	0.6		
<i>Eremophila granitica</i>		0.1	0.5		
<i>Acacia erinacea</i>		0.1	0.4		
<i>Templetonia ceracea</i>		0.1	0.35		
<i>Rhagodia spinescens</i>		0.1	0.3		
<i>Maireana trichoptera</i>		0.1	0.15		
<i>Asteridea athrixioides</i>		0.1	0.05		
<i>Waitzia acuminata</i> var. <i>acuminata</i>		0.1	0.04		

Site details			
Site	Rec02-R	Position (WGS84)	-31.608094, 119.532344
Slope	gentle	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (03 Oct 2019)			
Sample description	Open woodland of <i>Eucalyptus rigidula</i> over tall open shrubland of <i>Drummondita hassellii</i> over mid <i>Acacia heteroneura</i> var. <i>jutsonii</i> and <i>Grevillea acuaria</i> shrubs.		
Habitat	open woodland		
Disturbance	none		
Vegetation condition	Excellent	Fire age	relatively recent (1-5 years)
Total veg. cover (%)	65	Tree cover (%)	10
Shrub cover (%)	50	Grass cover (%)	0
Herb cover (%)	1		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	03-Oct-2019	unbound	David Leach

Species (30)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus rigidula</i>		10	3.5		
<i>Eucalyptus</i> sp. sp.		5	3.5		
<i>Drummondita hassellii</i>		2.5	0.3		
<i>Grevillea excelsior</i>		1	10		
<i>Acacia heteroneura</i> var. <i>jutsonii</i>		1	1.25		
<i>Grevillea acuaria</i>		1	1.25		
<i>Melaleuca calyptroides</i>		1	0.6		
<i>Persoonia coriacea</i>		1	0.6		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		0.1	1.75		
<i>Hakea multilineata</i>		0.1	1.5		
<i>Hakea erecta</i>		0.1	1		
<i>Isopogon scabriusculus</i> subsp. <i>pubifloris</i>		0.1	0.75		
<i>Gastrolobium parviflorum</i>		0.1	0.6		
<i>Melaleuca cordata</i>		0.1	0.6		
<i>Beyeria sulcata</i> var. <i>sulcata</i>		0.1	0.6		
<i>Grevillea hookeriana</i> subsp. <i>apiciloba</i>		0.1	0.5		
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	P3 (DBC list)	0.1	0.4		
<i>Verticordia inclusa</i>		0.1	0.4		
<i>Daviesia intricata</i> subsp. <i>xiphophylla</i>		0.1	0.4		
<i>Verticordia rennieana</i>		0.1	0.4		
<i>Daviesia croniniana</i>		0.1	0.4		
<i>Beaufortia puberula</i>		0.1	0.3		
<i>Jacksonia nematoclada</i>		0.1	0.3		
<i>Chamaexeros macranthera</i>		0.1	0.25		
<i>Leucopogon</i> sp. <i>Forrestania</i> (G.F. Craig 2386)		0.1	0.2		
<i>Comesperma spinosum</i>		0.1	0.2		
<i>Calytrix merrelliana</i>		0.1	0.2		
<i>Boronia ternata</i> var. <i>ternata</i>		0.1	0.2		
<i>Thysanotus patersonii</i>		0.1	0.2		
<i>Caustis dioica</i>		0.1	0.05		

Site details			
Site	Rec03-R	Position (WGS84)	-31.543022, 119.528349
Slope		Topography	
Soil colour	brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none
Observation details - visit 1 (03 Oct 2019)			
Sample description	<i>Eucalyptus salubris</i> and <i>E. salmonophloia</i> woodland over tall <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> shrubland over low open <i>Olearia muelleri</i> , <i>Phebalium tuberculosum</i> and <i>Acacia erinacea</i> shru		
Habitat	woodland		
Disturbance	none		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	15
Shrub cover (%)	20	Grass cover (%)	0
Herb cover (%)	1		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	03-Oct-2019	unbound	David Leach

Species (16)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		15	4		
<i>Eucalyptus salubris</i>		10	22.5		
<i>Eucalyptus salmonophloia</i>		5	22.5		
<i>Olearia muelleri</i>		1	0.4		
<i>Phebalium tuberosum</i>		0.5	0.4		
<i>Eucalyptus capillosa</i>		0.1	17.5		
<i>Exocarpos aphyllus</i>		0.1	1.25		
<i>Daviesia argillacea</i>		0.1	1.25		
<i>Austrostipa elegantissima</i>		0.1	0.6		
<i>Rytidosperma setaceum</i>		0.1	0.4		
<i>Alyxia buxifolia</i>		0.1	0.4		
<i>Acacia merrallii</i>		0.1	0.4		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		0.1	0.4		
<i>Acacia erinacea</i>		0.1	0.35		
<i>Maireana georgei</i>		0.1	0.2		
<i>Bossiaea walkeri</i>		0.1	0.2		

Site details			
Site	Rec04-R	Position (WGS84)	-31.240261, 119.510673
Slope	negligible	Topography	plain
Soil colour	red-brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none
Observation details - visit 1 (04 Oct 2019)			
Sample description	<i>Eucalyptus salubris</i> and <i>E. Yilgarnensis</i> woodland over low open <i>Eremophila granitica</i> and chenopod shrubland		
Habitat	woodland		
Disturbance	historic clearing, litter, vehicle tracks, weed infestation		
Vegetation condition	Good	Fire age	not evident
Total veg. cover (%)	25	Tree cover (%)	15
Shrub cover (%)	15	Grass cover (%)	1
Herb cover (%)	1		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	04-Oct-2019	unbound	David Leach

Species (17)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus salubris</i>		10	15		
<i>Eremophila granitica</i>		5	1.5		
<i>Eucalyptus yilgarnensis</i>		4.5	10		
<i>Eucalyptus longicornis</i>		1.5	25		
<i>Eucalyptus capillosa</i>		1.5	12.5		
<i>Exocarpos aphyllus</i>		1.5	1.5		
<i>Eremophila scoparia</i>		1.5	1		
<i>Olearia muelleri</i>		1.5	0.4		
<i>Atriplex nummularia</i>		1	1.25		
<i>Maireana trichoptera</i>		1	0.15		
<i>Atriplex vesicaria</i>		0.1	0.5		
* <i>Asphodelus fistulosus</i>	Weed	0.1	0.35		
<i>Maireana georgei</i>		0.1	0.3		
<i>Ptilotus obovatus</i>		0.1	0.25		
* <i>Carthamus lanatus</i>	Weed	0.1	0.2		
<i>Austrostipa elegantissima</i>		0.1	0.2		
<i>Roepera eremaea</i>		0.1	0.15		

Site details			
Site	Rec05-R	Position (WGS84)	-30.953174, 119.509919
Slope	negligible	Topography	plain
Soil colour	red-orange	Soil texture	sandy clay
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (04 Oct 2019)			
Sample description	Low <i>Sarcozona praecox</i> shrubland		
Habitat	Floodplain		
Disturbance	none		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	0
Shrub cover (%)	50	Grass cover (%)	0
Herb cover (%)	1		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	04-Oct-2019	unbound	David Leach

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Species (7)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Sarcozona praecox</i>		25	4		
<i>Sclerolaena diacantha</i>		2.5	0.15		
<i>Angianthus tomentosus</i>		1	0.05		
<i>Atriplex vesicaria</i>		0.1	0.4		
<i>Maireana georgei</i>		0.1	0.35		
<i>Maireana trichoptera</i>		0.1	0.1		
* <i>Arctotheca calendula</i>	Weed	0.1	0.05		

Site details			
Site	Rec06-R	Position (WGS84)	-30.95494, 119.509333
Slope	gentle	Topography	plain
Soil colour	red-orange	Soil texture	sandy loam, loam
Rock cover (%)	0	Rock type	none

Observation details - visit 1 (04 Oct 2019)			
Sample description	tall <i>Acacia acuminata</i> shrubland over sparse mid shrubland of <i>Dodonaea viscosa</i> subsp. <i>angustissima</i> over low scattered <i>Atriplex vesicaria</i>		
Habitat	Shrubland		
Disturbance	none		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	60	Tree cover (%)	40
Shrub cover (%)	20	Grass cover (%)	0
Herb cover (%)	0		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	04-Oct-2019	unbound	David Leach

Baseline flora, vegetation and fauna surveys for the Parker Range Haul Road Project

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Species (11)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Acacia acuminata</i>		40	2.5		
<i>Hakea preissii</i>		1	2.5		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		1	1.25		
<i>Atriplex vesicaria</i>		1	0.4		
<i>Rhagodia ulicina</i>	Range extension	0.5	0.4		
<i>Ricinocarpos muricatus</i>		0.1	3		
<i>Ptilotus schwartzii</i>		0.1	0.3		
<i>Maireana georgei</i>		0.1	0.25		
* <i>Ursinia anthemoides</i> subsp. <i>anthemoides</i>	Weed	0.1	0.15		
<i>Sclerolaena diacantha</i>		0.1	0.15		
<i>Acacia</i> sp.		0.1			

Site details			
Site	Rec07-R	Position (WGS84)	-31.231121, 119.509991
Slope		Topography	plain
Soil colour	yellow, grey	Soil texture	sand
Rock cover (%)	0	Rock type	none
Observation details - visit 1 (04 Oct 2019)			
Sample description	Tall <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> shrubland over low open shrubland of <i>Acacia assimilis</i> subsp. <i>assimilis</i> and <i>Banksia elderiana</i>		
Habitat	Shrubland		
Disturbance	none		
Vegetation condition	Excellent	Fire age	not evident
Total veg. cover (%)	75	Tree cover (%)	50
Shrub cover (%)	25	Grass cover (%)	0
Herb cover (%)	1		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	04-Oct-2019	unbound	David Leach

Species (25)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		10	3		
<i>Tetrapora tenuiramea</i>		10	0.6		
<i>Banksia elderiana</i>		1	1.5		
<i>Acacia assimilis</i> subsp. <i>assimilis</i>		1	1		
<i>Schoenus hexandrus</i>		0.5	0.2		
<i>Santalum acuminatum</i>		0.1	1.5		
<i>Baeckea elderiana</i>		0.1	1		
<i>Grevillea eryngioides</i>		0.1	0.8		
<i>Persoonia coriacea</i>		0.1	0.8		
<i>Thryptomene kochii</i>		0.1	0.8		
<i>Euryomyrtus leptospermoides</i>		0.1	0.7		
<i>Euryomyrtus maidenii</i>		0.1	0.7		
<i>Lepidosperma diurnum</i>		0.1	0.5		
<i>Grevillea paradoxa</i>		0.1	0.5		
<i>Drummondita hassellii</i>		0.1	0.4		
<i>Verticordia chrysantha</i>		0.1	0.4		
<i>Dampiera stenostachya</i>		0.1	0.3		
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	P3 (DBCA list)	0.1	0.3		
<i>Lepidosperma ?sanguinolentum</i>		0.1	0.3		
<i>Verticordia stenopetala</i>	P3 (DBCA list)	0.1	0.3		
<i>Pityrodia lepidota</i>		0.1	0.3		
<i>Platysace trachymenioides</i>		0.1	0.3		
<i>Verticordia inclusa</i>		0.1	0.3		
<i>Stenanthemum stipulosum</i>		0.1	0.2		
<i>Lechenaultia brevifolia</i>		0.1	0.2		

Site details			
Site	Rec08-R	Position (WGS84)	-31.302401, 119.511791
Slope	negligible	Topography	undulating plain
Soil colour	yellow	Soil texture	sand
Rock cover (%)	0	Rock type	none
Observation details - visit 1 (04 Oct 2019)			
Sample description	Scattered <i>Eucalyptus burracopiensis</i> over closed <i>Allocasuarina spinosissima</i> shrubland over low open shrubland of <i>Grevillea excelsior</i> and <i>Acacia beauverdiana</i>		
Habitat	shrubland		
Disturbance	vehicle tracks		
Vegetation condition	Excellent	Fire age	moderate (>5 years)
Total veg. cover (%)	75	Tree cover (%)	10
Shrub cover (%)	70	Grass cover (%)	0
Herb cover (%)	0		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	04-Oct-2019	unbound	David Leach

Species (18)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Allocasuarina spinosissima</i>		40	1.5		
<i>Eucalyptus burracoppinensis</i>		1	3		
<i>Euryomyrtus maidenii</i>		1	0.5		
<i>Grevillea excelsior</i>		0.5	3		
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i>		0.1	3		
<i>Hakea multilineata</i>		0.1	1.5		
<i>Acacia beauverdiana</i>		0.1	1		
<i>Hakea erecta</i>		0.1	1		
<i>Persoonia coriacea</i>		0.1	0.6		
<i>Callitris preissii</i>		0.1	0.5		
<i>Lepidosperma diurnum</i>		0.1	0.4		
<i>Lepidosperma sanguinolentum</i>		0.1	0.3		
<i>Triodia scariosa</i>		0.1	0.3		
<i>Lomandra collina</i>		0.1	0.3		
<i>Patersonia rudis</i> subsp. <i>velutina</i>		0.1	0.3		
<i>Platysace trachymenioides</i>		0.1	0.3		
<i>Drummondita hassellii</i>		0.1	0.3		
<i>Schoenus hexandrus</i>		0.1	0.2		

Site details			
Site	Rec09-R	Position (WGS84)	-31.476648, 119.526574
Slope	gentle	Topography	
Soil colour	red-brown	Soil texture	sandy loam
Rock cover (%)	0	Rock type	none
Observation details - visit 1 (04 Oct 2019)			
Sample description	Mallee <i>Eucalyptus moderata</i> woodland over open <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> , <i>Phebalium tuberosum</i> and <i>Eremophila ionantha</i> shrubland		
Habitat	mallee woodland		
Disturbance	none		
Vegetation condition	Very Good	Fire age	not evident
Total veg. cover (%)	50	Tree cover (%)	20
Shrub cover (%)	40	Grass cover (%)	0
Herb cover (%)	1		

Sample and effort summary				
Sample method	Visit	Sample date	Dimensions	Observer
Relevé	1	04-Oct-2019	unbound	David Leach

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Species (13)	Status	Visit 1		Visit 2	
		Cover (%)	Height (m)	Cover (%)	Height (m)
<i>Eucalyptus moderata</i>		20	5		
<i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>		15	2.5		
<i>Phebalium tuberosum</i>		10	0.8		
<i>Bossiaea walkeri</i>		2.5	0.6		
<i>Daviesia argillacea</i>		1.5	1.5		
<i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i>		1	3.5		
<i>Acacia acuminata</i>		1	2		
<i>Santalum acuminatum</i>		0.1	2.25		
<i>Melaleuca hamata</i>		0.1	2		
<i>Eremophila ionantha</i>		0.1	1		
<i>Thysanotus</i> sp. <i>Twining Wheatbelt</i> (N.H. Brittan 81/29)		0.1	0.4		
<i>Hibbertia eatoniae</i>		0.1	0.4		
* <i>Arctotheca calendula</i>	Weed	0.1	0.1		

Appendix 3 NVIS hierarchy

Western Australia Current Practice			National Standard		
Hierarchy of terms	Brief description in WA	Indicative scale	NVIS Level	Description	NVIS structural/floristic components required
Vegetation formation	Structure and growth form – e.g. Forest, Woodland.	1:5 000 000	I	Class	Dominant growth form for the ecologically or structurally dominant stratum.
Vegetation sub-formation	Structural and dominant vegetation layer - Eucalypt Forest, Banksia Woodland	1:2 500 000 I	II	Structural Formation	Dominant growth form, cover and height for the ecologically or structurally dominant stratum.
Vegetation association	Structural form and dominant species – e.g. Medium woodland; York gum (<i>Eucalyptus loxophleba</i>) & Wandoo	1:1 000 000 to 1:250 000	III	Broad Floristic Formation	Dominant growth form, cover, height and dominant land cover genus for the uppermost or dominant stratum.
Vegetation complex	Structural and floristic description linked to geomorphology – e.g. Quindalup Complex.	1:250 000 to 1:100 000	IV	Sub-Formation	Dominant growth form, cover, height and dominant genus and Family for the three traditional strata. (i.e. Upper, Mid and Ground).
Vegetation type	Floristic definition by strata with structural detail. Often represented with a code and floristic description.	1:100 000 to 1:10 000	V	Association	Dominant growth form, height, cover and up to 3 species for the three traditional strata. (i.e. Upper, Mid and Ground).
Plant community	Basic unit of vegetation classification, site specific and highly localised with detailed floristics for each stratum.	1:10 000	VI	Sub-Association	Dominant growth form, height, cover and up to 5 species for all layers/ strata.
Floristic Community Type	Floristic composition definition; e.g. Northern banksia woodlands over herb rich shrublands on the Swan Coastal Plain.	No absolute scale			

Appendix 4 Terrestrial fauna survey site descriptions