APPENDIX F FLORA AND FAUNA SPECIES LISTS



Flora Species List

Flora species recorded within MAR State Project Land during site surveys between 2018 and 2021.

Key:

CR - EPBC Act listed Critically Endangered

cr - FFG Act listed Critically Endangered

en - FFG Act listed Endangered

vu - FFG Act listed Vulnerable

P - FFG Act listed Protected

- native species occurring beyond its natural range

* - introduced

Table F.1 Flora Species list

Species Name	Common Name	Conservation Status	Origin	Number in public land required for removal (FFG-listed and protected species only
Acacia baileyana	Cootamundra Wattle		#	
Acacia dealbata	Silver Wattle			
Acacia mearnsii	Black Wattle	Р		
Acacia melanoxylon	Blackwood			
Acacia paradoxa	Hedge Wattle			
Acacia retinodes s.l.	Wirilda	Р		
Acacia saligna	Golden Wreath Wattle		#	
Acaena echinata	Sheep's Burr			
Agapanthus praecox subsp. orientalis	Agapanthus		*	
Agrostis capillaris	Brown-top Bent		*	
Allocasuarina verticillata	Drooping Sheoak			
Aloe arborescens	Tree Aloe		*	
Alternanthera denticulata s.s.	Lesser Joyweed			
Amaranthus albus	Stiff Tumbleweed		*	
Amyema spp.	Mistletoe			
Anthosachne scabra s.s.	Common Wheat-grass			
Anthoxanthum odoratum	Sweet Vernal Grass		*	
Araujia sericifera	White Bladder-flower		*	
Arctotheca calendula	Cape weed		*	
Arthropodium minus	Small Vanilla-lily			
Asperula conferta	Common Woodruff			
Aster subulatus	Aster-weed		*	
Atriplex semibaccata	Berry Saltbush			
Austrostipa bigeniculata	Kneed Spear-grass			
Austrostipa elegantissima	Feather Spear-grass			

Species Name	Common Name	Conservation Status	Origin	Number in public land required for removal (FFG-listed and protected species only
Austrostipa rudis	Veined Spear-grass			
Austrostipa scabra subsp. falcata	Rough Spear-grass			
Avena barbata	Bearded Oat		*	
Avena fatua	Wild Oat		*	
Berkheya rigida	African Thistle		*	
Bothriochloa macra	Red-leg Grass			
Brachyscome basaltica var. gracilis	Woodland Swamp-daisy	Р		
Brachyscome dentata	Lobe-seed Daisy	Р		
Brassica fruticulosa	Twiggy Turnip		*	
Briza maxima	Large Quaking-grass		*	
Bromus alopecuros	Mediterranean Brome		*	
Bromus catharticus	Prairie Grass		*	
Bromus diandrus	Great Brome		*	
Bromus hordeaceus	Soft Brome		*	
Bursaria spinosa	Sweet Bursaria			
Caesia calliantha	Blue Grass-lily			
Callistemon sieberi	River Bottlebrush			
Calocephalus citreus	Lemon Beauty-heads	Р		5-10
Calystegia sepium	Large Bindweed			
Carduus tenuiflorus	Winged Slender-thistle		*	
Carex bichenoviana	Plains Sedge			
Carex breviculmis	Common Grass-sedge			
Carex inversa	Knob Sedge			
Carex tereticaulis	Poong'ort			
Carpobrotus rossii	Karkalla			
Cassinia sifton	Sifton Bush	Р		10-20
Cenchrus clandestinus	Kikuyu		*	
Centaurium erythraea	Common Centaury		*	
Cerastium glomeratum s.s.	Sticky Mouse-ear Chickweed		*	
Cheilanthes austrotenuifolia	Green Rock-fern			
Cheilanthes sieberi	Narrow Rock-fern			
Chenopodium murale	Sowbane		*	
Chloris truncata	Windmill Grass			
Chrysanthemoides monilifera	Boneseed		*	
Chrysocephalum sp. 1	Plains Everlasting			
Cirsium vulgare	Spear Thistle		*	
Clematis microphylla s.s.	Small-leaved Clematis			

Species Name	Common Name	Conservation Status	Origin	Number in public land required for removal (FFG-listed and protected species only
Convolvulus angustissimus subsp. angustissimus	Blushing Bindweed			
Conyza bonariensis	Flaxleaf Fleabane		*	
Cortaderia selloana	Pampas Grass		*	
Crassula decumbens var. decumbens	Spreading Crassula			
Crassula sieberiana s.s.	Sieber Crassula			
Crataegus monogyna	Hawthorn		*	
Cymbonotus preissianus	Austral Bear's-ear			
Cynara cardunculus subsp. flavescens	Artichoke Thistle		*	
Cynodon dactylon var. dactylon	Couch		*	
Cyperus eragrostis	Drain Flat-sedge		*	
Dactylis glomerata	Cocksfoot		*	
Desmodium gunnii	Southern Tick-trefoil			
Dianella longifolia var. grandis	Arching Flax-lily	cr		
Dianella revoluta s.l.	Black-anther Flax-lily			
Dichanthium sericeum subsp. sericeum	Silky Blue-grass			
Dichelachne crinita	Long-hair Plume-grass			
Dichondra repens	Kidney-weed			
Dittrichia graveolens	Stinkwort		*	
Drosera aberrans	Scented Sundew			
Duma florulenta	Tangled Lignum			
Echium plantagineum	Paterson's Curse		*	
Ehrharta erecta var. erecta	Panic Veldt-grass		*	
Ehrharta longiflora	Annual Veldt-grass		*	
Einadia nutans	Nodding Saltbush			
Eleocharis acuta	Common Spike-sedge			
Enchylaena tomentosa var. tomentosa	Ruby Saltbush			
Epilobium billardiereanum	Variable Willow-herb			
Erodium botrys	Big Heron's-bill		*	
Erodium moschatum	Musky Heron's-bill		*	
Eryngium ovinum	Blue Devil			
Eucalyptus camaldulensis	River Red-gum			
Eucalyptus cladocalyx	Sugar Gum		*	
Eucalyptus leucoxylon subsp. leucoxylon	Yellow Gum			
Eucalyptus x studleyensis	Studley Park Gum	cr		
Euphorbia drummondii	Flat Spurge			
Foeniculum vulgare	Fennel		*	

Species Name	Common Name	Conservation Status	Origin	Number in public land required for removal (FFG-listed and protected species only
Fraxinus angustifolia	Desert Ash		*	
Fumaria muralis Wall Fumitory	Wall Fumitory		*	
Galenia pubescens var. pubescens	Galenia		*	
Galium aparine	Cleavers		*	
Galium murale	Small Goosegrass		*	
Genista linifolia	Flax-leaf Broom		*	
Genista monspessulana	Montpellier Broom		*	
Geranium retrorsum s.s.	Grassland Crane's-bill			
Glycine tabacina	Variable Glycine			
Goodenia pinnatifida	Cut-leaf Goodenia			
Haloragis heterophylla	Varied Raspwort			
Helminthotheca echioides	Ox-tongue		*	
Holcus lanatus	Yorkshire Fog		*	
Hordeum hystrix	Barley-grass		*	
Hordeum leporinum	Barley-grass		*	
Hydrocotyle laxiflora	Stinking Pennywort			
Hypochaeris glabra	Smooth Cats-ear		*	
Hypochaeris radicata	Flatweed		*	
Hypoxis glabella	Tiny Star			
Juncus acutus	Spiny Rush		*	
Juncus australis	Austral Rush			
Juncus pallidus	Pale Rush			
Juncus subsecundus	Finger Rush			
Lachnagrostis filiformis	Common Blown-grass			
Lagurus ovatus	Hare's-tail Grass		*	
Leontodon taraxacoides subsp. taraxacoides	Hairy Hawkbit		*	
Lepidium africanum	Common Peppercress		*	
Leptospermum lanigerum	Woolly Tea-tree			
Linum marginale	Native Flax			
Lobelia pratioides	Poison Lobelia			
Lolium rigidum	Wimmera Rye-grass		*	
Lomandra filiformis	Wattle Mat-rush			
Lomandra micrantha	Small-flower Mat-rush			
Lomandra nana	Dwarf Mat-rush			
Lycium ferocissimum	African Box-thorn		*	
Lysimachia arvensis	Pimpernel		*	
Lythrum hyssopifolia	Common loosestrife			
Maireana decalvans	Black Cotton-bush			

Species Name	Common Name	Conservation Status	Origin	Number in public land required for removal (FFG-listed and protected species only
Maireana enchylaenoides	Wingless Bluebush			
Malva nicaeensis	Mallow of Nice		*	
Marrubium vulgare	Horehound		*	
Melicytus dentatus	Tree Violet			
Microlaena stipoides var. stipoides	Weeping Grass			
Modiola caroliniana	Red-flower Mallow		*	
Muellerina eucalyptoides	Creeping Mistletoe			
Nassella hyalina	Cane Needle-grass		*	
Nassella neesiana	Chilean Needle-grass		*	
Nassella trichotoma	Serrated Tussock		*	
Nicotiana suaveolens	Austral Tobacco	en		
Opuntia spp.	Prickly pear		*	
Oxalis perennans	Grassland Wood-sorrel			
Oxalis pes-caprae	Soursob		*	
Panicum effusum	Hairy Panic			
Paspalum dilatatum	Paspalum		*	
Paspalum distichum	Water Couch		*	
Petrorhagia nanteuilii	Childling Pink		*	
Phalaris aquatica	Toowoomba Canary-grass		*	
Phragmites australis	Common Reed			
Pimelea glauca	Smooth Rice-flower			
Pimelea humilis	Common Rice-flower			
Pimelea spinescens subsp. spinescens	Spiny Rice-flower	CR, cr		8
Pittosporum undulatum	Sweet Pittosporum		*	
Plantago coronopus	Buck's-horn Plantain		*	
Plantago gaudichaudii	Narrow-leaf Plantain			
Plantago lanceolata	Ribwort		*	
Poa annua	Annual Meadow-grass		*	
Poa labillardierei	Common Tussock-grass			
Poa morrisii	Soft Tussock-grass			
Poa sieberiana var. sieberiana	Grey Tussock-grass			
Polycarpon tetraphyllum	Four-leaved Allseed		*	
Rapistrum rugosum	Giant Mustard		*	
Rhagodia parabolica	Fragrant Saltbush	vu		
Romulea minutiflora	Small-flower Onion Grass		*	
Romulea rosea	Onion Grass		*	
Rosa rubiginosa	Sweet Briar		*	
Rubus fruticosus spp. agg.	Blackberry		*	

Species Name	Common Name	Conservation Status	Origin	Number in public land required for removal (FFG-listed and protected species only
Rubus parvifolius	Small-leaf Bramble			
Rumex conglomeratus	Clustered Dock		*	
Rumex dumosus	Wiry Dock			
Rumex bidens	Mud Dock			
Rumex brownii	Slender Dock			
Rumex crispus	Curled Dock		*	
Rytidosperma caespitosum	Common Wallaby-grass			
Rytidosperma duttonianum	Brown-back Wallaby-grass			
Rytidosperma fulvum	Copper-awned Wallaby- grass			
Rytidosperma geniculatum	Kneed Wallaby-grass			
Rytidosperma racemosum var. racemosum	Slender Wallaby-grass			
Rytidosperma setaceum	Bristly Wallaby-grass			
Rytidosperma spp.	Wallaby Grass			
Salsola tragus	Prickly Saltwort			
Salvia verbenaca	Wild Sage		*	
Schinus molle	Pepper Tree		*	
Schoenoplectus tabernaemontani	River Club-sedge			
Schoenus apogon	Common Bog-sedge			
Senecio quadridentatus	Cotton Fireweed	Р		10-20
Senecio tenuiflorus spp. agg.	Slender Fireweed	Р		1-5
Sherardia arvensis	Field Madder		*	
Solanum laciniatum	Large Kangaroo Apple			
Solanum nigrum	Black Nightshade		*	
Solanum pseudocapsicum	Madeira Winter-cherry		*	
Solenogyne dominii	Smooth Solenogyne	Р		
Sonchus asper	Rough Sow-thistle		*	
Sonchus oleraceus	Common Sow-thistle		*	
Sporobolus africanus	Rat-tail Grass		*	
Stellaria media	Chickweed		*	
Themeda triandra	Kangaroo Grass			
Tradescantia fluminalis	Wandering Jew		*	
Tricoryne elatior	Yellow Rush-lily			
Trifolium angustifolium var. angustifolium	Narrow-leaf Clover		*	
Trifolium spp.	Clover		*	
Typha orientalis	Broad-leaf Cumbungi			
Ulex europaeus	Gorse		*	
Velleia paradoxa	Spur Velleia			

Species Name	Common Name	Conservation Status	Origin	Number in public land required for removal (FFG-listed and protected species only
Verbena bonariensis	Purple-top		*	
Veronica gracilis	Slender Speedwell			
Veronica plebeia	Trailing Speedwell			
Vicia sativa subsp. sativa	Common Vetch		*	
Vinca major	Blue Periwinkle		*	
Vulpia spp.	Fescue		*	
Wahlenbergia communis	Tufted Bluebell			
Wahlenbergia luteola	Bronze Bluebell			
Walwhalleya proluta	Rigid Panic			
Watsonia meriana var. bulbillifera	Bulbil Watsonia		*	

Fauna Species List

Fauna species recorded within MAR State Project Land during site surveys between 2018 and 2021.

Key:

CR - EPBC Act listed Critically Endangered

VU - EPBC Act listed Vulnerable

cr - FFG Act listed Critically Endangered

en - FFG Act listed Endangered

vu – FFG Act listed Vulnerable

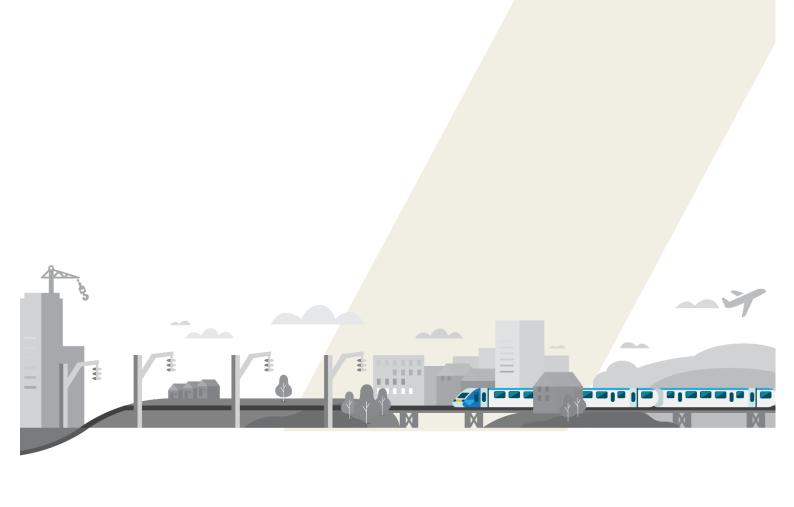
* - Introduced

Table F.2 Fauna Species list

Common and Species Name	Conservation Status	Origin	Survey Method
Australian Magpie (Cracticus tibicen)			Incidental
Australian Reed-Warbler (Acrocephalus australis)			Incidental
Australian White Ibis (Threskiornis molucca)			Incidental
Australian Wood Duck (Chenonetta jubata)			Incidental
Australasian Grebe (Tachybaptus novaehollandiae)			Incidental
Bell Miner (Manorina melanophrys)			Incidental
Black Kite (Milvus migrans)			Incidental
Brown Falcon (<i>Falco berigora</i>)			Incidental
Crested Pigeon (Ocyphaps lophotes)			Incidental
Delicate Skink (Lampropholis delicata)			SLL Survey
Dusky Woodswallow (<i>Artamus cyanopterus</i>)			Incidental
Eastern Blue-tongue Lizard (Tiliqua scincoides scincoides)			SLL Survey
Eastern Common Froglet (Crinia signifera)			GGF Survey
Eastern Grey Kangaroo (Macropus giganteus)			Incidental
Eastern Rosella (Platycercus eximius)			Incidental
Eurasian Coot (<i>Fulica atra</i>)			Incidental
European Hare (<i>Lepus europaeus</i>)		*	Incidental
European Rabbit (<i>Oryctolagus cuniculus</i>)		*	Incidental
Indian Myna (Acridotheres tristis)		*	Incidental
Golden Sun Moth (<i>Synemon plana</i>)	CR, vu		GSM Survey
Growling Grass Frog (Litoria raniformis)	VU, vu		GGF Survey
Little Raven (Corvus mellori)			Incidental
Lowland Copperhead (Austrelaps superbus)			SLL Survey
Magpie-lark (<i>Grallina cyanoleuca</i>)			Incidental
New Holland Honeyeater (Phylidonyris novaehollandiae)			Incidental
Noisy Miner (<i>Manorina melanocephala</i>)			Incidental
Pacific Black Duck (Anas superciliosa)			Incidental

Common and Species Name	Conservation Status	Origin	Survey Method
Pobblebonk (Limnodynastes dumerilii)			GGF Survey
Purple Swamphen (Porphyrio porphyrio)			Incidental
Rainbow Lorikeet (Trichoglossus moluccanus)			Incidental
Robust Striped Skink (Ctenotus robustus)			SLL Survey
Shingleback (Tiliqua rugosa)			SLL Survey
Southern Boobook (Ninox boobook)			Incidental
Spotted Marsh Frog (Limnodynastes tasmaniensis)			GGF Survey
Superb Fairy-wren (Malurus cyaneus)			Incidental
Striated Pardalote (Pardalotus striatus)			Incidental
Striped Legless Lizard (Delma impar)	VU, en		SLL Survey
Striped Marsh Frog (Limnodynastes peronii)			GGF Survey
Tiger Snake (Notechis scutatus)			SLL Survey
Tussock Skink (Pseudemoia pagenstecheri)			SLL Survey
Weasel Skink (Saproscincus mustelinus)			SLL Survey
Welcome Swallow (Hirundo neoxena)			Incidental
Whistling Kite (Haliastur sphenurus)			Incidental
White-faced Heron (Egretta novaehollandiae)			Incidental
White-plumed Honeyeater (Ptilotula penicillatus)			Incidental
Willie Wagtail (Rhipidura leucophrys)			Incidental

APPENDIX G VEGETATION QUALITY ASSESSMENT (VQA) RESULTS



Vegetation Quality Assessment (VQA) Results

Table G.1 Vegetation Quality Assessment results

Habitat Zo	ne		BC01 a - b	BC01 c -	MR01 a- c	BP01 a- c	DT01 a	DT02 a- x	DT03 a	DT04 a	GI01 a	GI02 a,b	GI02 c-x	JC03 a- x
Bioregion			VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP
EVC #: Nar	me		895: ES	895: ES	56: FRW	55: PGW	821: Tall Marsh	132: PG	125: PGW	55: PGW	132: PG	132: PG	132: PG	641: RW
EVC Conse	ervation Status	Max Score												
	Large Old Trees	10	-	-	0	0	-	-	-	0	-	-	-	0
	Canopy Cover	5	3	0	0	5	-	-	-	5	-	-	-	3
	Understorey	25	5	5	5	5	5	15	15	0	5	15	15	5
	Lack of Weeds	15	4	4	4	0	15	7	7	0	13	0	0	4
	Recruitment	10	0	0	5	3	3	3	3	0	6	6	6	6
	Organic Litter	5	2	2	5	5	3	3	5	5	5	2	2	0
	Logs	5	0	0	0	0	-	-	-	0	-	-	-	0
Site Condition	Total before standardiser		14	11	19	18	26	28	30	10	29	23	23	18
O O	Standardiser	n/a	1.15	1.15	1	1	1.36	1.36	1.36	1	1.36	1.36	1.36	1
Site	Total	75	16.1	12.65	19	18	35.36	38.08	40.8	10	39.44	31.28	31.28	18
	Patch size	10	0	0	1	1	1	1	1	1	1	1	4	1
Φ	Neighbourhood	10	0	0	0	0	0	0	0	0	0	0	0	0
Landscape Context	Distance to Core	5	1	1	1	1	1	1	1	1	1	1	1	1
Co	total	25	1	1	2	2	2	2	2	2	2	2	5	2
Habitat Sco	ore	100	17.1	13.65	21	20	37.36	40.08	42.8	12	41.44	33.28	36.28	20
Habitat poir	nts = #/100	1	0.17	0.14	0.21	0.20	0.37	0.40	0.43	0.12	0.41	0.33	0.36	0.20

Habitat Zo	Habitat Zone		JC04 a-x	JC05 a	JS1 a	JS2	JS2 a	JS3	JS4	ML1	ML2 a-b	ML2 c -x	RB1	MT1
Bioregion			VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP
EVC #: Nar	me		55:PGW	821: Tall Marsh	132: PG	132: PG	132: PG	895: ES	895: ES	821: TM	56: FRP	56: FRP	851: SBS	56: FRP
EVC Conse	ervation Status	Max Score												
	Large Old Trees	10	0	-	-	-	-	-	2	-	0	4	0	10
	Canopy Cover	5	3	-	-	-	-	0	2	-	0	0	3	5
	Understorey	25	0	5	5	5	5	5	5	5	5	5	10	5
	Lack of Weeds	15	13	9	4	4	0	4	4	4	0	0	7	0
	Recruitment	10	0	3	3	3	3	3	3	0	5	5	3	5
	Organic Litter	5	4	5	5	5	0	4	5	2	0	0	4	5
	Logs	5	0	-	-	-	-	0	0	-	0	0	0	0
Condition	Total before standardiser		20	22	17	17	8	16	21	11	10	14	27	30
CO	Standardiser	n/a	1	1.36	1.36	1.36	1.36	1.15	1	1.36	1	1	1	1
Site	Total	75	20	29.92	23.12	23.12	10.88	18.4	21	14.96	10	14	27	30
	Patch size	10	1	1	8	4	1	1	4	1	1	1	1	1
Φ	Neighbourhood	10	0	0	3	3	3	3	3	2	2	2	0	0
Landscape	Distance to Core	5	1	1	1	1	1	1	1	2	2	2	1	1
Co	total	25	2	2	12	8	5	5	8	5	5	5	2	2
Habitat Sco	Habitat Score 100		22	31.92	35.12	31.12	15.88	23.4	29	19.96	15	19	29	32
Habitat poir	nts = #/100	1	0.22	0.32	0.35	0.31	0.16	0.23	0.29	0.20	0.15	0.19	0.29	0.32

Habitat Zone		SH01a-c	SH02 a-x	SH03 a-x	SH04 a-x	TU01 a	TU01 b	PL	ALT1a-b	ALT2a	CAL1a,b&d	CAL1c	CAL1e
Bioregion		VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP
EVC #: Name		132: PG	132: PG	851: SBS	132: PG	55: PGW	55: PGW	851: SBS	821:TM	55: PGW	132: PG	132: PG	132: PG
EVC Conservation Status	Max Score												
Large Old Trees	10	-	-	0	-	0	0	10	-	0	-	-	-
Canopy Cover	5	-	-	0	-	0	0	5	-	0	-	-	-
Understorey	25	5	5	5	10	5	5	5	10	20	5	5	5
Lack of Weeds	15	0	4	0	7	4	4	11	11	13	0	0	4
Recruitment	10	0	6	5	3	0	5	5	1	0	3	3	3
Organic Litter	5	4	5	4	3	3	0	2	0	4	2	0	2
Logs	5	-	-	0	-	0	0	0	-	0	-	-	-
Total before standardiser		9	20	14	23	12	14	38	22	37	10	8	14
Standardiser	n/a	1.36	1.36	1	1	1	1	1	1.36	1	1.36	1.36	1.36
Total	75	12.24	27.2	14	23	12	14	38	29.92	37	13.6	10.88	19.04
Patch size	10	1	1	1	1	1	1	1	1	1	1	1	1
Neighbourhood	10	0	0	0	0	0	0	0	0	0	0	0	0
Distance to Core	5	1	1	1	1	1	1	1	0	0	0	0	0
total	25	2	2	2	2	2	2	2	1	1	1	1	1
Habitat Score	100	14.24	29.2	16	25	14	16	40	30.92	38	14.6	11.88	20.04
Habitat points = #/100	1	0.14	0.29	0.16	0.25	0.14	0.16	0.40	0.31	0.38	0.15	0.12	0.20

Ha	oitat Zone		CAL1f	CAL1g	CAL1h	CAL1i	CAL1j	CAL2a.b	CAL2c	CAL3a	CAL3b-c	CAL4a-b	SNB1a-c	SNB2a-b	SNB3a
Bio	region		VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP
EV	C #: Name		132: PG	132: PG	132: PG	647: PSW	647: PSW	55: PGW	55: PGW	56: FRW	821: TM				
EV Sta	C Conservation tus	Max Score													
	Large Old Trees	10	-	-	-	-	-	-	-	-	-	0	10	0	-
	Canopy Cover	5	-	-	-	-	-	-	-	-	-	0	3	5	-
	Understorey	25	5	5	5	5	5	5	10	5	5	5	5	4	5
	Lack of Weeds	15	0	4	4	0	0	7	7	7	11	0	0	5	2
	Recruitment	10	3	3	6	3	0	3	3	6	1	0	5	0	3
	Organic Litter	5	2	2	2	2	2	2	2	5	3	2	3	3	2
	Logs	5	-	-	-	-	-	-	-	-	-	0	0	2	-
Condition	Total before standardiser		10	14	17	10	7	17	22	23	20	7	26	19	12
CO	Standardiser	n/a	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1	1	1	1.36
Site	Total	75	13.6	19.04	23.12	13.6	9.52	23.12	29.92	31.28	27.2	7	26	19	16.32
	Patch size	10	1	1	1	1	1	1	1	1	1	1	2	1	1
ape	Neighbourhood	10	0	0	0	0	0	0	0	0	0	0	1	1	1
Landscape	Distance to Core	5	0	0	0	0	0	0	0	0	0	0	0	0	0
Lar	total	25	1	1	1	1	1	1	1	1	1	1	3	2	2
Hal	oitat Score	100	14.6	20.04	24.12	14.6	10.52	24.12	30.92	32.28	28.2	8	29	21	18.32
Hal	pitat points = #/100	1	0.15	0.20	0.24	0.15	0.11	0.24	0.31	0.32	0.28	0.08	0.29	0.21	0.18

Habitat Z	Cone		SNB4a- e	SNB4f	SNB5a- c	SNB6a	BRI1a	BRI1b	BRI1c	BRI1d	BRI1e	BRI1f	BRI2a	DT02e	STO1a
Bioregion	ı		VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP	VVP
EVC #: N	EVC #: Name		55: PGW	55: PGW	56: FRW	821: TM	55: PGW	132: PG	55: PGW						
EVC Con	servation Status	Max Score													
	Large Old Trees	10	0	0	0	-	0	0	0	0	0	0	0	-	0
	Canopy Cover	5	0	3	0	-	0	0	0	0	0	0	0	-	2
	Understorey	25	5	5	5	5	5	5	5	5	5	5	5	5	5
	Lack of Weeds	15	0	0	0	2	11	7	7	11	4	0	0	0	7
	Recruitment	10	5	5	5	3	3	0	0	1	0	0	6	0	0
	Organic Litter	5	2	2	2	2	5	3	3	3	3	3	2	0	3
	Logs	5	0	0	0	-	0	0	0	0	0	0	0	-	0
Site Condition	Total before standardiser		12	15	12	12	24	15	15	20	12	8	13	5	17
CO	Standardiser	n/a	1	1	1	1.36	1	1	1	1	1	1	1	1.36	1
Site	Total	75	12	15	12	16.32	24	15	15	20	12	8	13	6.8	17
	Patch size	10	1	1	1	1	1	1	1	1	1	1	1	1	1
(I)	Neighbourhood	10	1	1	1	1	3	3	3	3	3	3	3	0	0
Landscape Context	Distance to Core	5	0	0	0	0	0	0	0	0	0	0	0	1	0
Col	total	25	2	2	2	2	4	4	4	4	4	4	4	2	1
Habitat S	core	100	14	17	14	18.32	28	19	19	24	16	12	17	8.8	18
Habitat p	oints = #/100	1	0.14	0.17	0.14	0.18	0.28	0.19	0.19	0.24	0.16	0.12	0.17	0.09	0.18



Hab	oitat Zone		STO1b	STO2a-b	DV1a-c	DV2a-b	DV3a
Bio	region		VVP	VVP	VVP	VVP	VVP
EVO	C #: Name		55: PGW	55: PGW	132: PG	132: PG	132: PG
EV0 Sta	C Conservation tus	Max Score					
	Large Old Trees	10	0	0	0	0	0
	Canopy Cover	5	3	0	0	0	0
	Understorey	25	5	5	5	5	5
	Lack of Weeds	15	0	0	0	4	11
	Recruitment	10	0	0	0	0	3
	Organic Litter	5	2	2	2	5	3
	Logs	5	0	0	0	0	0
Site Condition	Total before standardiser		10	7	7	14	22
O e	Standardiser	n/a	1	1	1.36	1.36	1.36
Site	Total	75	10	7	9.52	19.04	29.92
	Patch size	10	1	1	1	1	1
ape	Neighbourhood	10	0	0	0	0	0
Landscape	Distance to Core	5	0	0	1	1	1
Lar	total	25	1	1	2	2	2
Hab	oitat Score	100	11	8	11.52	21.04	31.92
Hab	pitat points = #/100	1	0.11	0.08	0.12	0.21	0.32



APPENDIX H LIST OF SCATTERED TREES AND LARGE TREES IN PATCHES



List of Scattered Trees and Large Trees in patches

Table H.1 List of scattered trees and large trees in patches

Tree ID	Scattered / Canopy Tree	Species	Size	DBH (cm)	Retained / Lost
1	Scattered tree	Lightwood (Acacia implexa)	Small	15	Retained
2	Scattered tree	Lightwood (Acacia implexa)	Small	12	Retained
3	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	17	Retained
4	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	93	Lost
5	Scattered tree	Yellow Box (Eucalyptus melliodora)	Small	55	Retained
6	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	71	Lost
33	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	9	Lost
42	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	81	Lost
43	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	90	Lost
44	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	85	Retained
46	Large Tree in patch	Studley Park Gum (Eucalyptus x studleyensis)	Large	100	Retained
47	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	90	Retained
48	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	90	Retained
49	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
50	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	85	Retained
51	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Lost
52	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	85	Retained
53	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
54	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	200	Retained
55	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	95	Retained
56	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	95	Retained
57	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	95	Retained
58	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	95	Retained
59	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	95	Retained
60	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	110	Retained

Tree ID	Scattered / Canopy Tree	Species	Size	DBH (cm)	Retained / Lost
61	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	140	Retained
62	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	140	Retained
63	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	140	Retained
65	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	200	Retained
66	Scattered Tree	River Red-gum (Eucalyptus camaldulensis)	Large	110	Retained
68	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Lost
69	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Large	75	Retained
70	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	49	Lost
71	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
72	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	40	Retained
73	Scattered tree	Sugar Gum (Eucalyptus cladocalyx)	Large	80	Retained
74	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Large	75	Retained
75	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Large	130	Retained
81	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Large	95	Lost
83	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	128	Retained
84	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	85	Lost
85	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	20	Lost
86	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	46	Lost
87	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	28	Retained
88	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	15	Retained
89	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	22	Retained
90	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	36	Retained
91	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	27	Retained
92	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	43	Lost
93	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	31	Lost
94	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	36	Lost
95	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	18	Lost
96	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	34	Retained
100	Scattered tree	Yellow Box (Eucalyptus melliodora)	Small	61	Lost
102	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	20	Retained
103	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	15	Retained
104	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	7	Retained
106	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	83	Retained
109	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained

Tree ID	Scattered / Canopy Tree	Species	Size	DBH (cm)	Retained / Lost
110	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	20	Retained
111	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	22	Retained
112	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	20	Retained
113	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	20	Retained
114	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	22	Retained
115	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	10	Retained
116	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
117	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	90	Retained
118	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	110	Retained
119	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	20	Retained
120	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
121	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
122	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	150	Retained
123	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
124	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
125	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
126	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	109	Retained
127	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
128	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	15	Retained
129	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	15	Retained
130	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	5	Retained
131	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	70	Retained
132	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	5	Retained
133	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
134	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
135	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
136	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
137	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	90	Retained
138	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	86	Retained

Tree ID	Scattered / Canopy Tree	Species	Size	DBH (cm)	Retained / Lost
139	Large Tree in patch	River Red-gum (<i>Eucalyptus camaldulensis</i>)	Large	80	Retained
140	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
141	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
142	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
143	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
144	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
145	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	10	Retained
146	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	7	Retained
147	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	5	Retained
148	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	84	Retained
149	Scattered tree	Yellow Box (Eucalyptus melliodora)	Small	60	Retained
150	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	86	Retained
151	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	80	Retained
152	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	110	Retained
153	Scattered tree	Yellow Box (Eucalyptus melliodora)	Small	20	Retained
154	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
155	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
156	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	120	Retained
157	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	85	Retained
158	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	100	Retained
159	Large Tree in patch	River Red-gum (Eucalyptus camaldulensis)	Large	99	Retained
160	Scattered tree	Yellow Box (Eucalyptus melliodora)	Small	38	Retained
161	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	55	Lost
162	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	28	Lost
163	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	65	Lost
164	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	28	Lost
165	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	20	Lost
166	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	30	Retained
167	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	12	Retained
168	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	15	Retained

Tree ID	Scattered / Canopy Tree	Species	Size	DBH (cm)	Retained / Lost
169	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	30	Lost
170	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	30	Lost
172	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	42	Retained
173	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	75	Retained
174	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	49	Retained
175	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	26	Retained
176	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	40	Retained
177	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	28	Retained
178	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	25	Retained
179	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	22	Retained
180	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	24	Retained
204	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	9	Lost
205	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	4	Lost
206	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	5	Lost
207	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	5	Lost
208	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	7	Lost
209	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	4	Lost
210	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	12	Lost
211	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	10	Lost
212	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	3	Lost
213	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	8	Lost
214	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	4	Lost
215	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	2	Lost
216	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	10	Lost
217	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	3	Lost
218	Scattered tree	Yellow Gum (Eucalyptus leucoxylon)	Small	10	Lost
219	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	5	Lost
220	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	5	Lost
221	Scattered tree	River Red-gum (Eucalyptus camaldulensis)	Small	3	Lost

APPENDIX I THREATENED SPECIES LIKELIHOOD OF OCCURENCE



Threatened Species Likelihood of Occurrence

Table I.1 Likelihood of presence of threatened flora within or adjacent to the State Project Land

Species	EPBC Act	FFG Act	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Acacia cupularis Cup Wattle	-	cr	Grows in sand, sometimes on dunes or in loam or sandy clay in mallee communities (Walsh and Entwisle 1996).	-	2002	2	Low : Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Acacia howittii Sticky Wattle	-	vu	Confined to eastern Victoria from the upper Macalister River area near Mt Howitt south to near Yarram and east to near Tabberabbera. Grows in moist forest. Widely cultivated and naturalising in some areas (e.g. Daylesford, Greater Melbourne, Dandenong Ranges etc.) (RBGV 2018).	-	2016	2	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Acacia rostriformis Bacchus Marsh Wattle	-	en	Confined to the Bacchus Marsh area (Lerderderg Gorge, Long Forest, Coimadai, Balliang and Werribee) where it occurs in low hilly areas in Eucalyptus woodland. Records from outside the Bacchus Marsh area are thought to be mislabelled or possibly of cultivated material (RBGV 2018).	-	2020	1	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Amphibromus fluitans River Swamp Wallaby-grass	VU	-	Largely confined to permanent swamps, principally along the Murray River between Wodonga and Echuca, uncommon to rare in the south (e.g. Casterton, Moe, Yarram), probably due to historic drainage of wetlands (RBGV 2016). Largely restricted in greater Melbourne to seasonal wetlands and mudflats of River Red Gum swamps of the Lower Yarra and Plenty/Merri volcanic plains north of Melbourne (Cam Beardsell pers. comm.).	PMST	-	0	Low: Limited suitable habitat for this species within the State Project Land. The lone wetland considered as potential habitat for this species (within the Sunshine Triangle Ecological Site) was determined to support only one Amphibromus species, Common Swamp Wallabygrass (<i>Amphibromus nervosus</i>). Further, this species has not been recorded within 5 km of the State Project Land within the last 30 years.
Atriplex paludosa subsp. paludosa Marsh Saltbush	-	en	Locally common on the fringes of coastal and near coastal saltmarshes west from Wilsons Promontory (Walsh and Entwisle 1996).	-	2017	1	Low : No suitable saltmarsh habitat for this species within the State Project Land.
Avicennia marina subsp. australasica Grey Mangrove	-	en	Locally common on tidal mudflats, (bays, estuaries and creek mouths) from the western half of Port Phillip Bay to corner inlet (Gray and Knight 2001).	-	2019	6	Low: No suitable tidal mudflat habitat for this species within the State Project Land.
Calotis anthemoides Cut-leaf Burr-daisy	-	cr	Scattered north and west of Melbourne (e.g. Sunshine, Camperdown, Moyston, Dunkeld, Numurkah regions) on heavy soils prone to waterlogging, but now rather rare due to habitat depletion (RBGV 2018).	-	1991	1	Low: Suitable high-quality grassland habitat for this species was identified within the State Project Land, however the species is not known to have been recorded at these specific locations. Targeted spring flora surveys undertaken at these locations did not record the species.



Species	EPBC Act	FFG Act	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Cladium procerum Leafy Twig-sedge	-	en	Occasional in swampy areas and margins of streams and lakes near the coast, tolerating low to moderate levels of salinity (RBGV 2020).	-	2018	1	Moderate: Species may occur along the margins of the Maribyrnong River and Moonee Ponds Creek. Species unlikely to occur within construction footprint, having not been recorded during targeted survey of that area.
Comesperma polygaloides Small Milkwort	-	cr	Occasional on heavier soils (clays, alluvium) supporting grassland and grassy woodland communities in central and south western areas (Walsh and Entwisle 1999).	-	2015	17	Low: Although areas of suitable grassland habitat was identified within the State Project Land, and recent records occur within the State Project Land at the Old Sunshine Tip Site, this species was not recorded within the State Project Land following targeted survey. This species is now considered unlikely to occur within the State Project Land. This species is likely to occur within the broader area of habitat at the Old Sunshine Tip Site outside the State Project Land.
Coronidium gunnianum Pale Swamp Everlasting	-	cr	Widespread throughout the state except for the north-west and the alpine and adjacent mountainous areas, and usually at low elevations (under c. 100 m) where mostly in grasslands and riverine Eucalyptus camaldulensis woodland on soils that are prone to inundation. Flowers (Nov.–) Feb.–Apr.(–Jun.) (RBGV 2018).;	-	2017	28	Low: It was initially considered highly likely that this species would occur in the South of the Solomon Heights Estate, with the occurrence of that species being mapped within the Munro Avenue Road Reserve (Biosis 2016), however this species was not located following targeted survey at that location. Further, the grasslands at that location were observed to be significantly degraded with minimal representation of native non-grass species, and a high degree of invasion by introduced grass species. Therefore it is considered unlikely that Pale Swamp Everlasting occurs at that location. Suitable habitat for this species did not occur elsewhere within the State Project Land.
Corymbia maculata Spotted Gum	-	vu	Grows naturally only in far east Gippsland within Victoria - Commonly planted street tree. Flowers Jul.—Sep (RBGV 2018).	-	2018	9	Low : Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Cullen parvum Small Scurf-pea	-	en	Rare in grasslands and grassy woodlands in north central and south central Victoria (Walsh and Entwisle 1994).	-	2009	3	Low: No known records of this species within the State Project Land area. Targeted survey undertaken in areas of suitable habitat and species was not recorded.
Cullen tenax Tough Scurf-pea	-	en	Generally grows in drier parts of Victoria in grassland and grassy woodland on heavy soils (Walsh and Entwisle 1996).	-	2017	42	Low: Suitable habitat for species, and recent records near the State Project Land. Targeted survey undertaken in areas of suitable habitat and species in areas of suitable habitat and the species was not recorded. Species likely to occur in suitable habitat outside the State Project Land at the Old Sunshine Tip Site and near the Maribyrnong River Bridge.
Dianella amoena Matted Flax-lily	EN	cr	Largely confined to drier grassy woodland and grassland communities south of the Dividing Range and now much depleted through its range (RBGV 2017).	PMST	2019	54	Low: This species was initially considered likely to occur within the Old Sunshine Tip Site, where there are a number of VBA records of the species, and within the River Valley Estate where the species has been recorded by previous assessments. Targeted surveys



Species	EPBC Act	FFG Act	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
							did not detect the species in either location. Three species of Dianella were recorded within the Old Sunshine Tip Site including Arching Flax-lily, Black Anther Flax-lily (<i>Dianella revoluta</i>), and Blue Flax-lily (<i>Dianella caerulea</i>), indicating a potential previous misidentification at that location. Similarly, within the River Valley estate, Arching Flax-lily was observed at a supposed Matted Flax-lily location, suggesting that misidentification by that previous assessment is likely. This species is now considered to have a low likelihood of occurrence in the State Project Land.
Dianella callicarpa Swamp Flax-lily	-	en	Occurs in grassland, woodland and swamp-scrub, mostly on clay soils derived from basalt, but also on sandier soils. Recorded from e.g. Grampians, Hamilton and Portland areas (RBGV 2017).	-	1991	3	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Dianella longifolia var. grandis Arching Flax-lily	-	cr	Occurs in lowland plains grassland and grassy woodlands (e.g. Volcanic Plain and Riverina) as well as around rocky outcrops at higher altitudes than the var. longifolia. Flowers Nov.–Dec (RBGV 2018).;	-	2020	208	Confirmed: 102 individuals of this species was recorded in various locations throughout the State Project Land (Sunshine Triangle Ecological Site; St. Albans Road Biosites; Old Sunshine Tip; River Valley Estate; M80 North Zone). Individuals are mapped in Appendix J Threatened Species Mapping.
Diuris basaltica Small Golden Moths	EN	cr	Plains Grassland on Victorian Basalt Plains. Known from records in Laverton and Altona. Flowers SepOct (Gray and Knight 2001).	PMST	1996	1	Low: Targeted spring/summer flora surveys within areas of suitable habitat in the Sunshine Section Project Land did not record this species. Not recorded within the Sunshine Section Project Land within the last 30 years.
Diuris fragrantissima Sunshine Diuris	EN	cr	Restricted to remnant plains grasslands west of Sunshine (Walsh and Entwisle 1994).	PMST	2018	5	Known to occur adjacent to Sunshine Section Project Land: Species known to occur adjacent to the Sunshine Section Project Land, specifically within the Sunshine Triangle Ecological Site. Does not occur within State Project Land.
Dodonaea procumbens Trailing Hop-bush	VU	-	Grows in low-lying, often winter-wet areas in woodland, low open-forest and grassland on sands and clays (Walsh and Entwisle 1996).	PMST	-	0	Low : No records within 5 km of the State Project Land within the last 30 years.
Eragrostis trachycarpa Rough-grain Love- grass	-	en	A rare grass apparently confined to moist sites in the lower catchment of the Gippsland Lakes (Between Heyfield and Lakes Entrance) (Gray and Knight 2001).	-	1996	1	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Eucalyptus globulus subsp. globulus Southern Blue-gum	-	en	Occur in Victoria only in the area south of the Strzelecki Range, e.g. Port Franklin, Wilsons Promontory, and that other populations in south Gippsland and the Otway Ranges probably	-	2020	1	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.



Species	EPBC Act	FFG Act	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
			represent intergrades between subsp. globulus and subsp. pseudoglobulus (RBGV 2016).				
Eucalyptus leucoxylon subsp. megalocarpa Large-fruit Yellow- gum	-	cr	Coastal, from Robe to south of Mt. Gambier. Flowers May-Dec (RBGV 2018).	-	2018	3	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Eucalyptus sideroxylon subsp. sideroxylon Mugga	-	en	In Victoria confined to the Chiltern area, northern Warby Range and south of Winton, while the other ironbark, <i>Eucalyptus tricarpa</i> , with its 3-budded inflorescences and larger fruit is widespread (RBGV 2018).	-	2020	3	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.
Eucalyptus x studleyensis Studley Park Gum	-	cr	Known from the from the lower Yarra River northeast of Melbourne (Kew, Viewbank, Watsonia).	-	-	-	Confirmed: Although outside the natural range of this species, one individual, confirmed as likely to be a Studley Park Gum by the National Herbarium of Victoria was mapped within the State Project Land at the Maribyrnong River. No other individuals were observed within the State Project Land and is considered unlikely to occur elsewhere.
Geranium solanderi var. solanderi s.s. Austral Crane's-bill	-	en	An uncommon species occurring in damp to dryish, sheltered sites of grassy woodlands, often along drainage lines or seepage areas (Walsh and Entwisle 1999).	-	2019	3	Low: Limited grassy woodland habitat within the State Project Land. The only grassy woodland stands present are revegetation where the ground layer has been tanbarked for weed suppression. These areas are considered unlikely to support the species.
Geranium sp. 1 Large-flower Crane's-bill	-	cr	Known from only two records in Broadmeadows. Flowers April (Walsh and Entwisle 1999).	-	2019	21	Low: Records in the vicinity of the State Project Land are from the Broadmeadows area where this species is known to occur. The State Project Land, although nearby, is considered outside the known distribution of this species, with the species having never been recorded there.
Geranium sp. 3 Pale-flower Crane's-bill	-	en	Found in open, grassy areas of dry woodland forest. Flowers SepJan (Walsh and Entwisle 1999).	-	2011	12	Moderate: With records of the species just outside the State Project Land near the River Valley Estate, it is likely that this species occurs within the adjacent high quality native grasslands.
Glycine latrobeana Clover Glycine	VU	vu	Widespread but of sporadic occurrence and rarely encountered. Grows mainly in grasslands and grassy woodlands (Walsh and Entwisle 1996).	PMST	-	0	Low: Species not recorded within 5 km of the State Project Land within the last 30 years.
Heterozostera nigricaulis Australian Grass- wrack	-	en	Coastal. Forms large meadows in shallow coastal waters to a depth of c. 15 m (RBGV 2021).	-	2009	2	Low : A coastal aquatic species unlikely to be present within the State Project Land.



Species	EPBC Act	FFG Act	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Heterozostera tasmanica Eelgrass	-	en	Locally common in shallow coastal waters to a depth of c. 8 cm, in sandy soil. Flowers Sep-Feb (Walsh and Entwisle 1994).	-	2007	1	Low : A coastal aquatic species unlikely to be present within the State Project Land.
Lachnagrostis adamsonii Adamson's Blown- grass	EN	en	Occurs in and around saline depressions on the Volcanic Plain where recorded from Portarlington west almost to the South Australian border (RBGV 2015).	PMST	-	0	Low: Outside the geographic range of this species.
Lachnagrostis semibarbata var. semibarbata Purple Blown-grass	-	en	Scattered from near Melbourne to the South Australian border, mainly in grassland, occasionally woodland communities in somewhat saline depressions of the volcanic plain, but also known from seasonal, slightly brackish swampy sites east of Melbourne (e.g. Cranbourne, Safety Beach, Giffard, Sale areas) (RBGV 2019).	-	2001	1	Low: Species not detected during vegetation mapping surveys. Only one record of this species within 5 km of the State Project Land. Never recorded from within the State Project Land despite the relatively well-surveyed grasslands within the State Project Land.
Lawrencia spicata Salt Lawrencia	-	en	An occasional component of saltmarsh communities along the coast, rare in saline depressions and around salt lakes of south western Victoria (Walsh and Entwisle 1996).	-	2009	3	Low: No suitable saltmarsh habitat within the State Project Land.
Lepidium hyssopifolium s.s. Basalt Peppercress	EN	en	Collected from scattered sites on the volcanic plain, but now much reduced from its former range and recorded recently only from e.g. Moorabool, Winchelsea, Bacchus Marsh, Woodend, Trentham. Most recent collections are from disturbed, rather weedy sites. One collection from near Port Fairy is noteworthy for its occurrence in a slightly saline estuary amongst saltmarsh and fringing sedgeland. Flowers mostly summerautumn (RBGV 2019).	-	2018	5	Low: Despite recent records within 5 km of the State Project Land, this species is unlikely to occur due to limited remnant grassy woodland habitat present within the State Project Land.
Leucochrysum albicans subsp. tricolor White Sunray	EN	en	Very rare in Victoria, the only recent collections from volcanic grassland remnants in the Wickliffe, Willaura, Streatham, Inverleigh and Creswick districts. All other Victorian collections were made last century, from e.g. Mt Cole, the Grampians and the Port Fairy district. Collections from the Victorian alps have been attributed to this subspecies, but they may be the result of hybridisation between Leucochrysum alpinum and Leucochrysum albicans subsp. albicans. Flowers NovDec (RBGV 2017).	PMST	-	0	Low: No records of this species from within 5 km of the State Project Land within the last 30 years.
Melaleuca armillaris subsp. armillaris Giant Honey-myrtle	-	en	Mainly confined to near-coastal sandy heaths, scrubs slightly raised above saltmarsh, riparian scrubs, rocky coastlines and foothill outcrops eastwards from about Marlo. Occurrences to the	-	2020	18	Low: Outside the natural range of this species. Any individuals present are likely to have been planted or are of naturalised origin.



Species	EPBC Act	FFG Act	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
			west are naturalized from cultivated stock. Commonly grown for ornament across Victoria, as a windbreak or street tree and sometimes giving rise to seedlings, particularly after fire (RBGV 2019).				
Nicotiana suaveolens Austral Tobacco	-	en	Fast growing annual herb, widespread but rare, prefers dry rocky places (RBGV 2018).	-	2016	4	Confirmed: One individual was recorded during targeted spring flora surveys in the Sunshine North Escarpment, near previous records of the species (Biosis 2016). Individuals are mapped in Appendix J Threatened Species Mapping.
Pimelea spinescens subsp. spinescens Spiny Rice-flower	CR	сг	Grows in grassland, open shrubland and occasionally woodland, often on basalt-derived soils. Mostly west of Melbourne (to near Horsham), but extending as far north as Echuca (RBGV 2017).	PMST	2020	513	Confirmed: 77 individuals of this species were recorded in several locations across the State Project Land (rail corridor adjacent to the Sunshine Triangle Ecological Site; St. Albans Road Biosites; Old Sunshine Tip; River Valley Estate and adjacent rail corridor; Solomon Heights). Spiny Rice-flower were also recorded land adjacent to the Matthews Hill Reserve (outside the State Project Land). Individuals are mapped in Appendix J Threatened Species Mapping.
Podolepis linearifolia Basalt Podolepis	-	en	Usually grows on heavy clay soils in grasslands but also recorded for grassy woodlands, open forests and around swamps. Flowers Sep.–Dec (RBGV 2018).;	-	2014	11	Low: Suitable high-quality grassland habitat for this species was identified within the State Project Land, with species records occurring nearby. Targeted survey was undertaken at these locations and the species was not recorded.
Prasophyllum frenchii Maroon Leek-orchid	EN	en	Widespread across southern Victoria, but rare. Occurs in grassland, heathland and open forest on well-drained or water-retentive sand or clay loams (RBGV 2018).	PMST	-	0	Low : No records of this species within 5 km of the State Project Land within the last 30 years.
Prostanthera nivea var. nivea Snowy Mint-bush	-	vu	Largely confined to shrubland and open woodland associated with granite outcrops (e.g. Mts Hope, Terrick Terrick, Kooyora and Pilot, and the You Yangs), also in Lerderderg Gorge, Barwon Heads and Anglesea areas. Sparingly established in heathland reserve at Sandringham (RBGV 2018).	-	2014	1	Low: No suitable habitat for this species within the State Project Land.
Pterostylis cucullata Leafy Greenhood	VU	en	Widely distributed but disjunct, mostly occurring in small groups in coastal areas, sometimes near inland watercourses. Two subspecies have been assigned to this species: subsp. culcutta is scattered in near coastal scrub, often on sand dunes and subsp. sylvicola is known from East Gippsland where it occurs along water courses among shrubs in tall forests, on rich loamy soils (RBGV 2019).	PMST	-	0	Low: No records of this species within 5 km of the State Project Land within the last 30 years. No suitable habitat within the State Project Land.



Species	EPBC Act	FFG Act	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Rhagodia parabolica Fragrant Saltbush	-	vu	Confined to rocky slopes and broad ridges between Sunbury and Geelong - but locally common where present. Flowers, not foliage are fragrant. Flowers mostly Sep-Jan (Walsh and Entwisle 1996).	-	2020	25	Confirmed: 30 individuals recorded in the River Valley Estate, Luma Estate, Brimbank Park and the M80 North Zone. Individuals mapped in Appendix J Threatened Species Mapping. Species is considered unlikely to occur elsewhere with the State Project Land.
Rutidosis leptorhynchoides Button Wrinklewort	EN	en	In Victoria confined to basaltic grasslands between Rokewood and Melbourne where endangered due to loss of habitat (formerly occurring as far west as Casterton, and on the Gippsland Plain near Newry) (RBGV 2015).	PMST	2015	16	Low: Suitable high-quality grassland habitat for this species was identified within the State Project Land, with species records occurring nearby. Targeted survey was undertaken at these locations and the species was not recorded.
Senecio macrocarpus Large-headed Fireweed	VU	cr	In Victoria largely confined to remnant Themeda grasslands on loamy clay soils derived from basalt from near Melbourne west to Skipton area. Also known from auriferous ground near Stawell. Formerly recorded from near Horsham and Casterton, but apparently long extinct from these areas (Walsh and Entwisle 1999).	PMST	2015	8	Confirmed (Known population adjacent to the State Project Land): Targeted survey for Large-headed Fireweed recorded this species in Matthews Hill Reserve, outside (adjacent to) the Sunshine Section Project Land. Targeted surveys within areas of suitable habitat in the Sunshine Section Project Land did not record this species. This species is therefore unlikely to occur within the State Project Land.
Senecio psilocarpus Swamp Fireweed	VU	-	Rare, restricted in Victoria to a few herb-rich winter-wet swamps throughout the south of the state, west from Sale, growing on volcanic clays or peaty soils (RBGV 2017).	PMST	-	0	Low: Not recorded within 5 km of the State Project Land in the last 30 years.
Tragus australianus Small Burr-grass	-	en	Generally confined to sandy tracts of the far northwest (Mildura area, Murrayville, Swam Hill) with a disjunct occurrence near Nathalia; rare. Flowers all year. 1 (Walsh and Entwisle 1994).	-	1992	1	Low: Outside the geographic range of this species.
Tripogonella loliiformis Rye Beetle-grass	-	en	An uncommon grass of scattered occurrence throughout the state, including rocky areas and the Basalt Plain (Walsh and Entwisle 1994).	-	2018	23	Moderate: A number of records nearby to the State Project Land, and previously recorded within Solomon Heights. the River Valley Estate (Biosis 2016) and St Albans Biosites, it is considered that there is a moderate likelihood of occurrence within the relatively intact patches of Plains Grassland (those classified as NTGVVP) within the River Valley Estate.
Xerochrysum palustre Swamp Everlasting	VU	cr	Occurs in lowland swamps, usually on black cracking clay soils, scattered from near the South Australian border north-west of Portland to Bairnsdale district, but rare due to habitat depletion (RBGV 2018).	PMST	-	0	Low: Not recorded within 5 km of the State Project Land in the last 30 years.



Table I.2 Likelihood of presence of threatened fauna within and adjacent to the State Project Land.

Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Grey Goshawk (<i>Accipiter</i> novaehollandiae)	-	en	Rainforests, forests; forest gullies and valleys; taller woodlands, timber on watercourses, open country in Autumn dispersal (Pizzey and Knight 2012).	-	2018	6	Low: Limited suitable habitat and utilisation of State Project Land likely to be restricted to dispersal and sporadic foraging.
Common Sandpiper (Actitis hypoleucos)	-	vu	Shallow, pebbly, muddy or sandy edges of rivers and streams, coastal to far inland; dams, lakes, sewage ponds; margins of tidal rivers; waterways in mangroves or saltmarsh; mudflats; rocky or sandy beaches; causeways, riverside lawns, drains, street gutters (Pizzey and Knight 2012).	-	2019	27	Low: Limited suitable shallow wetland/mudflat habitat within the State Project Land. Unlikely to occur within Metropolitan Melbourne apart from occasional dispersal.
Magpie Goose (Anseranas semipalmata)	-	vu	Large seasonal wetlands and well-vegetated dams with rushes and sedges, wet grasslands, floodplains (Pizzey and Knight 2012).	-	2016	2	Low: Limited suitable large seasonal wetland habitat with suitable vegetation. Unlikely to occur within Metropolitan Melbourne apart from occasional dispersal.
Swamp Antechinus (Antechinus minimus maritimus)	VU	vu	Dense wet heathlands, tussock grasslands, sedgelands, damp gullies, swamps and some shrubby woodlands (DAWE 2020b).	PMST	-	0	Low: This species has not been recorded within 5 km of the State Project Land in the last 30 years.
Regent Honeyeater (Anthochaera Phrygia)	CR	cr	Dry open forest, woodlands, or red ironbark, yellow box, white and yellow gum, mistletoe on river she-oaks, trees in farmlands, streets, gardens (Pizzey and Knight 2012).	PMST	-	0	Low: No suitable habitat within the State Project Land.
Great Egret (Ardea alba)	-	vu	Shallows of rivers, estuaries, tidal mudflats, freshwater wetlands; sewage ponds, irrigation areas, larger dams etc (Pizzey and Knight 2012).	-	2019	246	High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Eastern Great Egret (Ardea alba modesta)	-	vu	Shallows of rivers, estuaries, tidal mudflats, freshwater wetlands; sewage ponds, irrigation areas, larger dams etc (Pizzey and Knight 2012).	-	2019	433	High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.



Species	ЕРВС	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Plumed Egret (Ardea intermedia plumifera)	-	cr	Freshwater wetlands, pastures and croplands, tidal mudflats, floodplains (Pizzey and Knight 2012).	-	2018	9	High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Hardhead (Aythya australis)	-	vu	Deep, permanent wetlands, large open waters, brackish coastal swamps, farm dams, ornamental lakes, sewage ponds (Pizzey and Knight 2012).	-	2019	1231	Moderate: This species may to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Musk Duck (<i>Biziura lobata</i>)	-	vu	Well-vegetated swamps, wetlands, both brackish and fresh, lakes, reservoirs, shallow bays, inlets; occasionally at sea (Pizzey and Knight 2012).	-	2019	49	Moderate: This species may to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Australasian Bittern (Botaurus poiciloptilus)	EN	cr	Narrow habitat preferences, preferring shallow, vegetated freshwater or brackish swamps (Pizzey and Knight 2012).	PMST	2017	2	Low: No suitable habitat within the State Project Land.
Red Knot (Calidris canutus)	EN	en	Tidal mudflats, sandflats, beaches, saltmarshes, flooded pastures, ploughed lands (Pizzey and Knight 2012).	PMST	2000	2	Low: No suitable habitat within the State Project Land
Curlew Sandpiper (Calidris ferruginea)	CR	cr	Tidal mudlfats; saltmarsh, saltfields; fresh, brackish or saline wetlands; sewage ponds (Pizzey and Knight 2012).	PMST	2019	29	Low: Limited suitable wetland habitat within the State Project Land
Great Knot (Calidris tenuirostris)	CR	cr	Tidal mudflats, sandy ocean and bay shores, estuaries, shallow saline and freshwater wetlands (Pizzey and Knight 2012).	PMST	-	0	Low: No suitable habitat within the State Project Land
Spot-tailed Quoll (Dasyurus maculatus maculatus)	EN	en	Has a wide range of habitats, including rainforest, open forest, woodland, coastal heathland and inland riparian forest (Van Dyck and Strahan 2008).	PMST	-	0	Low : No suitable habitat within State Project Land. No records within 5 km of the State Project Land within the last 30 years.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Striped Legless Lizard (<i>Delma impar</i>)	VU	en	A grassland specialist, potential habitat for the Striped Legless Lizard includes all areas which have, or once had, native grasslands or grassy woodlands (including derived grasslands) across the historical range of the species, provided that area retains suitable tussock structure, the soil is of appropriate type and structure, and the site has not had major disturbance such as ploughing (DAWE 2020b).	PMST	2020	338	Confirmed: Striped Legless Lizards occur at a number of locations across the State Project Land (St. Albans Road Biosites; Old Sunshine Tip Site; M80 North Zone). Additionally, the species is considered to have a moderate or high likelihood of occurring at Solomon Heights, and Sunshine Railway Line Linear Reserve. Individuals recorded during targeted surveys are mapped in Appendix J Threatened Species Mapping.
New Zealand Wandering Albatross (<i>Diomedea</i> antipodensis)	VU	-	Outside breeding season ranges extensively over south Pacific, including to south Australian waters (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Southern Royal Albatross (<i>Diomedea</i> epomophora)	VU	cr	Wide, possibly circumpolar distribution when not breeding. Moderately common all months, mostly in Victoria, SE NSW and Tasmania (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Wandering Albatross (<i>Diomedea exulans</i>)	VU	cr	Breeds at high latitudes in south Indian and south Atlantic Oceans. Regualr visitor to eastern and southern Australian open ocean and slope waters, less common over shelf (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Northern Royal Albatross (<i>Diomedea sanfordi</i>)	EN	-	Breeds NZ, outside breeding period circumpolar in sub-Antractic and subtropical seas. Regular visitor to offshore waters of southern Australia, mostly May-Sept (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Little Egret (Egretta garzetta)	-	en	Tidal mudflats, saltmarshes, mangroves, freshwater wetlands, sewage ponds (Pizzey and Knight 2012).	-	2019	85	High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Murray River Turtle (Emydura macquarii)	-	cr	Restricted to larger rivers and associated large waterholes on the floodplains (Cogger 2014).	-	2017	4	Low: Naturally occurs in the Murray River including in mainstream waters and adjoining lagoons. The species has been introduced to the Yarra River. Unlikely to regularly occur in the waterways that intersect the State Project Land.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Grey Falcon (Falco hypoleucos)	-	vu	Lightly treed inland plains, gibber deserts, sandridges, pastoral lands, timber watercourses; seldom in driest deserts (Pizzey and Knight 2012).	PMST	-	0	Low : Species not recorded within 5 km of the State Project Land in the last 30 years.
Black Falcon (Falco subniger)	-	Cr	Plains, grasslands, foothills, timbered watercourses, wetland environs; crops; occasionally over towns and cities (Pizzey and Knight 2012).	-	2018	16	Moderate: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works.
Painted Honeyeater (Grantiella picta)	VU	vu	Mistletoes in eucalypt forests/woodlands; black box on watercourses; box-ironbark-yellow gum woodlands; paperbarks, Casuarinas; mulga, other acacias; trees on farmland; gardens (Pizzey and Knight 2012).	PMST	-	0	Negligible potential for impact. Low: No suitable habitat within the State Project Land.
White-bellied Sea- Eagle (Haliaeetus leucogaster)	-	en	Coasts, islands, estuaries, inlets, large rivers, inland lakes, reservoirs (Pizzey and Knight 2012).	-	2017	4	Moderate: This species may utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works.
White-throated Needletail (<i>Hirundapus</i> caudacutus)	VU	vu	Airspace over forests, woodlands, farmlands, plains, lakes, coasts, towns, feeding companies frequency patrol back and forward along favoured hilltops and timbered ranges (Pizzey and Knight 2012).	PMST	2019	7	Negligible potential for impact. High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Caspian Tern (<i>Hydroprogne</i> caspia)	-	vu	Coastal, offshore waters, beaches, mudflats, estuaries, larger rivers, reservoirs and lakes (Pizzey and Knight 2012).	-	2018	15	High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Australian Little Bittern (Ixobrychus dubius)	-	en	Dense reedbeds in freshwater swamps, lakes and rivers; tussocks in wetland areas (Pizzey and Knight 2012).	-	2017	1	Moderate: This species may utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Swift Parrot (Lathamus discolor)	CR	Cr	Breeds in Tasmania and overwinters in Victoria. In Victoria, found in dry sclerophyll forests and woodlands, suburban parks and gardens where it feeds on the nectar of flowering eucalypts, namely Grey Box, Red Ironbark, Mugga Ironbark, Yellow Gum and White Box. Also feeds on lerp psyllids amongst River-red Gum (Birdlife 2021).	PMST	2020	21	High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes during its migration. Species utilises large, mature flowering eucalypt species between March – August, including planted eucalyptus such as Sugar Gums. Considering the dispersed nature of this species' habitat across the state, high dispersal potential of this species, extensive foraging habitat outside the State Project Land and the transient nature of the migratory species' presence in the area, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Lewin's Rail (Lewinia pectoralis)	-	vu	Swamp woodlands, rushes, reeds, rank grass in swamps, creeks, paddocks; wet heaths (Pizzey and Knight 2012).	-	2018	3	Moderate: This species may utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Bar-tailed Godwit (<i>Limosa lapponica</i>)	VU	vu	The Bar-tailed Godwit breeds in the Northern Hemisphere and moves south for the Northern Hemisphere winter. Two subspecies occur in Australia: ;- baueri: migrates to south-east Australia from breeding grounds in Siberia and Alaska;- menzbieri: frequents north-west Australia and breeds mostly in central north Siberia. In Australia the Bar-tailed Godwit occurs mostly on coasts, but undertakes regular inland passage. It utilises tidal mudflats, estuaries, sewage ponds, shallow river margins, brackish or saline inland lakes, flooded pastures and airfields (Pizzey and Knight 2012, DAWE 2020b).	-	2000	7	Low: State Project Land lacks suitable coastal or tidal habitats to support this species.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Growling Grass Frog (<i>Litoria raniformis</i>)	VU	vu	A largely aquatic species found among vegetation within or at the edges of permanent water — streams, swamps, lagoons, farm dams and ornamental ponds. Often found under debris on low, often flooded river flats. Frequently active by day (Cogger 2014).	PMST	2018	101	Confirmed: This species was recorded within the State Project Land in 2019 (AJM-JV 2020b). The Maribyrnong River and Moonee Ponds Creek are considered high value reaches for the species. The M80 North Zone retention basin provides marginal potential habitat for the species, while Steele Creek is considered a low value reach for dispersal.
Square-tailed Kite (Lophoictinia isura)	-	vu	Heathlands, woodlands, forests, rainforest, timbered water courses, hills and gorges (Pizzey and Knight 2012).	-	2018	15	Moderate: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Southern Giant- Petrel (Macronectes giganteus)	EN	en	Marine, over open seas and inshore waters; favours edge of continental shelf and edge of pack-ice (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Northern Giant- Petrel (Macronectes halli)	VU	en	Wide circumpolar range generally n. of Antarctic convergence (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Orange-bellied Parrot (Neophema chrysogaster)	CR	cr	On mainland prefers small islands, peninsulas in coastal areas; with saltmarsh plants; coastal pastures, golf courses, crops of millet and sunflowers; dunes, beaches. Tasmania prefers button-grass; sedges on wet peat plains and eucalypt woodland on margin (Pizzey and Knight 2012).	PMST	-	0	Low: No suitable habitat for this species within the State Project Land.
Turquoise Parrot (Neophema pulchella)	-	vu	Open grassy woodland, with dead trees, near permanent water and forested hills, coastal heaths, pastures with introduced grasses, weeds, roadsides, orchards (Pizzey and Knight 2012).	-	2000	1	Low: No suitable habitat for this species within the State Project Land
Barking Owl (Ninox connivens)	-	cr	Open forests, woodlands, dense scrubs, foothills, river red gums, other large trees near water courses, penetrating otherwise open country, and paperbark woodlands (Pizzey and Knight 2012).	-	2001	1	Low: This species has the potential to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
Powerful Owl (Ninox strenua)	-	vu	Pairs occupy a large, probably permanent, home range in mountain forests, gullies and forest margins, sparser hilly woodlands, coastal forests, woodlands, scrubs, introduced pine plantations, large trees in private/public gardens, some in cities (Pizzey and Knight 2012).	-	2019	8	Moderate: This species has the potential to utilise the State Project Land sporadically for foraging and dispersal purposes, however has not been recorded within the State Project Land and is known to utilise green corridors across the north-east to south-east of Melbourne. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Eastern Curlew (Numenius madagascariensis)	CR	cr	Estuaries, tidal mudflats, sandspits, saltmarshes, mangroves; occasionally fresh or brackish lakes; bare grasslands near water (Pizzey and Knight 2012).	PMST	2017	3	Low: State Project Land is inland and lacks suitable coastal or tidal mudflat habitats to support this species.
Platypus (Ornithorhynchus anatinus)	-	vu	Creeks and rivers along Australia's eastern seaboard. Formerly at various locations along the Murray River. Burrows in banks of waterways, with an identifiably horizontally oval cross-section. Generally breeds in September.	-	1998	4	Moderate: This species may utilise the Maribyrnong River sporadically for foraging and dispersal purposes.
Blue-billed Duck (Oxyura australis)	-	vu	Found on temperate, fresh to saline, terrestrial wetlands including sewerage ponds, rivers, salt lakes and saltpans. Preferring deep, permanent open water within or near dense vegetation (Pizzey and Knight 2012).	-	2019	200	Moderate: This species may utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Plains-wanderer (Pedionomus torquatus)	CR	cr	Sparse, treeless, lightly grazed native grasslands/herbfields with bare ground, old cereal crops, short Lucerne, sparse saltbush, low shrubland (Pizzey and Knight 2012).	PMST	-	0	Low : Not recorded within 5 km of the State Project Land within the last 30 years.
White-faced Storm- Petrel (Pelagodroma marina)	-	en	Present off shore of southern Australia in summer, apparently absent in winter (Pizzey and Knight 2012).	-	2010	1	Low: Marine avifauna
Eastern Barred Bandicoot (Perameles gunnii)	VU	en	Extinct in the wild and occurs in small reintroduced populations in southern Victoria. Previously it occurred across the Victorian Volcanic Plains. During the day it rests in a grass nest. It feeds on	PMST	2003	7	Low: Species extinct in the wild.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
			earthworms, insects, bulbs, tubers and fungi throughout the night (DAWE 2020b).				
Sooty Albatross (Phoebetria fusca)	VU	cr	Breeds sub-Antarctic islands in south Atlantic and south Indian Oceans, dispersing mainly between 60°S and 30°S, with eastern extension to Australian offshore waters, most common in Bass Strait and south of Tasmania (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Pacific Golden Plover (<i>Pluvialis fulva</i>)	-	vu	Estuaries, mudflats, saltmarshes, mangroves; rocky reefs and stranded seaweed on ocean shores; margins of shallow open inland swamps; sewerage ponds, short-grass paddocks, sports grounds, airfields, ploughed land (Pizzey and Knight 2012).	-	2017	1	Low: State Project Land is inland and lacks suitable coastal or tidal mudflat habitats to support this species.
Tussock Skink (Pseudemoia pagenstecheri)	-	en	Tussock grasslands with few or no trees from highlands in ne Victoria to low-altitude basalt plains of sthn Vic (Wilson and Swan 2008).	-	2020	151	Confirmed: Species occurs in a number of locations across the State Project Land (St. Albans Road Biosites; M80 South Powerline Easement; M80 North Zone). Individuals recorded during targeted surveys are mapped in Appendix J Threatened Species Mapping.
Brown Toadlet (Pseudophryne bibronii)	-	en	Found below rocks in logs in wet and dry sclerophyll forest, in proximity to seasonally inundated areas (Cogger 2014).	-	1994	1	Moderate: Species may occur in seasonally inundated areas of Riparian Woodlands associated with the Maribyrnong River and Moonee Ponds Creek within the State Project Land. Individuals were not detected during targeted surveys within the construction footprint, therefore considered unlikely to utilise these areas.
Gould's Petrel (Pterodroma leucoptera)	EN	-	Breeds on Cabbage Tree Island and islands off nearby Port Stephens (NSW) (subspecies calendonica) breeds New Calendonia). Non-breeding (June-Sept) birds of both races disperse from breeding grounds throughout Tasman Sea and across to east Pacific Ocean; offshore waters from south Queensalnd to eastern South Australia (Pizzey and Knight 2012).	PMST	-	0	Low: Marine Avifauna
Grey-headed Flying- fox (Pteropus poliocephalus)	VU	vu	Camps of this species are found in gullies, typically not far from water and usually in vegetation with a dense canopy (Van Dyck and Strahan 2008). Closest camps of this species are at Yarra Bend and Doveton.	PMST	2019	18	High: This species is likely to utilise the State Project Land sporadically for foraging and dispersal purposes. Considering the relative close proximity to the Yarra Bend camp (~15 km), it is highly likely the species utilises large mature Eucalypts (remnant and planted) within the State Project Land to forage. Considering the dispersed nature of this species' habitat, high dispersal potential of this species, extensive foraging habitat outside the Project, it is



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
							unlikely that this species would be impacted by the proposed works.
Speckled Warbler (Pyrrholaemus sagittatus)	-	en	Drier woodlands with tussocks, branches and rocks (Pizzey and Knight 2012).	-	1990	1	Low: Limited suitable habitat within the State Project Land and limited historic records within 5 km.
Australian Painted- snipe (Rostratula australis)	EN	cr	Well-vegetated shallows and margins of wetlands, dams, sewage ponds; wet pastures, marshy areas, irrigation systems, lignum, tea-tree scrub, open timber (Pizzey and Knight 2012).	PMST	-	0	Low: Given the marginal natire of the wetland haitat within the State Project Land and the lack of records of this species within 5 km of the State Project Land within the last 30 years, this species is unlikely to occur within the State Project Land.
Yellow-bellied Sheathtail Bat (Saccolaimus flaviventris)	-	vu	Widespread through Aus, yet fast, high flight path makes it harder to detect. Feeds above canopy, or lower to ground in mallee or open country. Roosts in tree-hollows, building walls, abandoned sugarglider nests. Migrates north over winter (Van Dyck and Strahan 2008).	-	2000	2	Moderate: May forage in the airspace across the State Project Land and roost within tree hollows of hollow-bearing trees. Considering the limited number of large trees required for removal, dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Australasian Shoveler (Spatula rhynchotis)	-	vu	Larger waters, fresh and saline lakes, well-vegetated freshwater wetlands, coastal inlets, sewage ponds, floodwaters (Pizzey and Knight 2012).	-	2019	166	Moderate: This species may utilise the State Project Land sporadically for foraging and dispersal purposes. Wetland habitat within State Project Land limited in extent and highly marginal. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works. Negligible potential for impact.
Diamond Firetail (Stagonopleura guttata)	-	vu	Open Eucalypt forests/woodlands; River Red Gum, Mallee, Buloke, Cypress Pine (Pizzey and Knight 2012).	-	1990	1	Low: Limited suitable extensive areas of grassy woodland habitat within the State Project Land.
Little Tern (Sternula albifrons)	-	cr	Coastal waters, bays, inlets, saline or brackish lakes, saltfields, sewerage ponds near coast (Pizzey and Knight 2012).	-	2018	2	Low: No suitable habitat within the State Project Land.
Fairy Tern (Sternula nereis)	VU	cr	Coastal waters, bays, inlets, saline or brackish lakes, saltfields, sewerage ponds near coast. Breeds Sept-Jan in single pairs to large colonies	PMST	2018	2	Low: No suitable habitat within the State Project Land.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
			on beaches, islands, rock platforms from north of Broome to eastern Victoria/NSW border; much lesser numbers in south (Pizzey and Knight 2012).				
Freckled Duck (Stictonetta naevosa)	-	en	Large, well vegetated swamps; in dry periods moves to open lakes (Pizzey and Knight 2012).	-	2019	26	Moderate: This species may utilise the State Project Land sporadically for foraging and dispersal purposes. Wetland habitat within State Project Land limited in extent and highly marginal. Considering the dispersed nature of this species' habitat, and the high dispersal potential of this species, it is unlikely that this species would be impacted by the proposed works.
Golden Sun Moth (Synemon plana)	CR	vu	Native temperate grassland and open grassy woodlands, may also be found in degraded grasslands dominated by introduced Chilean Needlegrass (DAWE 2020c).	PMST	2019	2255	Negligible potential for impact. Confirmed: This species was recorded during targeted surveys in the Matthews Hill Reserve (outside the State Project Land), and is also known to occur at Solomon Heights
Buller's Albatross (Thalassarche bulleri)	VU	en	Buller's Albatross are marine and pelagic, inhabiting subtropical and subantarctic waters of the southern Pacific Ocean (DAWE 2020b).	PMST	-	0	Low: Marine avifauna.
Pacific Albatross (Thalassarche bulleri platei)	VU	-	The Pacific Albatross is a marine, pelagic species. It occurs in subtropical and subantarctic waters of the South Pacific Ocean (DAWE 2020b).	PMST	-	0	Low: Marine avifauna.
Shy Albatross (Thalassarche cauta)	VU	en	The only Albatross with Australian breeding stations: on Albatross Rock, Bass Strait. Common all months (but mostly winter) on coasts of Vic, Tas, NSW and SA; uncommon in S.E. Qld and WA to Carnarvon (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Campbell Albatross (Thalassarche impavida)	VU	-	The Campbell Albatross breed on Campbell Island (Marchant & Higgins 1990). They make their nests on tussock-covered ledges and terraces of cliffs, slopes and hills, overlooking the sea or valleys, and on the summits of rocky islets (DAWE 2020b).	PMST	-	0	Low: Marine avifauna.
Black-browed Albatross (<i>Thalassarche</i> <i>melanophris</i>)	VU	-	Visits offshore south east Australia in winter (Pizzey and Knight 2012).	PMST	-	0	Low: Marine avifauna.
Salvin's Albatross (Thalassarche salvini)	VU	-	During the non-breeding season, the species occurs over continental shelves around continents. It occurs both inshore and offshore and enters harbours and bays. Salvin's Albatross	PMST	-	0	Low: Marine avifauna.



Species	EPBC	FFG	Habitat/Distribution	Modelled Presence	Last Record	No. Recs	Likelihood of Presence
			is scarce in pelagic waters. Salvin's Albatross nest's on level or gently sloping ledges, summits, slopes and caves of rocky islets and stacks, usually in broken terrain with little soil and vegetation (DAWE 2020b).				
White-capped Albatross (<i>Thalassarche</i> steadi)	VU	-	The White-capped Albatross is a marine species and occurs in subantarctic and subtropical waters. The White-capped Albatross is probably common off the coast of south-east Australia throughout the year (DAWE 2020b).	PMST	-	0	Low: Marine avifauna.
Hooded Plover (Thinornis cucullatus)	VU	vu	A small Australian beach nesting bird. It mainly occurs on wide beaches backed by dunes with large amounts of seaweed and jetsam, creek mouths and inlet entrances. Nests are found above the high water mark on flat beaches, on stony terraces, or on sparsely vegetated dunes (DAWE 2020b).	PMST	-	0	Low: Coastal shorebird.
Common Greenshank (<i>Tringa nebularia</i>)	-	en	Mudflats, estuaries, saltmarshes, margins of lakes; wetlands, claypans, fresh and saline; commercial saltfields and sewage ponds (Pizzey and Knight 2012).	-	2019	162	Low: State Project Land is inland and lacks suitable coastal or wetland habitats to support this species.
Marsh Sandpiper (Tringa stagnatilis)	-	en	Salt, brackish or freshwater wetlands; Sewage ponds, commercial saltfields, bore-drains, mangroves, tidal mudflats, estuaries (Pizzey and Knight 2012).	-	2019	4	Low: State Project Land is inland and lacks suitable coastal or wetland habitats to support this species.
Grassland Earless Dragon (<i>Tympanocryptis</i> pinguicolla)	EN	cr	Found in naturally treeless native tussock grassland preferring unglazed or lightly grazed grasslands on gentle slopes (Cogger 2014).	PMST	-	0	Low: Species thought to be locally extinct in Victoria.

