

APPENDIX C

DBCA NATUREMAP & PROTECTED MATTERS SEARCH TOOL RESULTS

NatureMap - Augusta

Created By Greg Harewood on 25/04/2018

Kingdom Animalia
Current Names Only Yes
Core Datasets Only Yes
Method 'By Circle'
Centre 115° 09' 50" E, 34° 19' 29" S
Buffer 20km
Group By Species Group

Species Group	Species	Records
Amphibian	11	168
Bird	180	5795
Fish	163	395
Invertebrate	107	522
Mammal	44	385
Reptile	31	294
TOTAL	536	7559

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Amphibian				
1.	25398 <i>Crinia georgiana</i> (Quacking Frog)			
2.	25399 <i>Crinia glauerti</i> (Clicking Frog)			
3.	25401 <i>Crinia pseudinsignifera</i> (Bleating Froglet)			
4.	25403 <i>Geocrinia alba</i> (White-bellied Frog)		T	
5.	25404 <i>Geocrinia leai</i> (Ticking Frog)			
6.	25410 <i>Heleioporus eyrei</i> (Moaning Frog)			
7.	25415 <i>Limnodynastes dorsalis</i> (Western Banjo Frog)			
8.	25378 <i>Litoria adelaidensis</i> (Slender Tree Frog)			
9.	25388 <i>Litoria moorei</i> (Motorbike Frog)			
10.	25419 <i>Metacrinia nicholli</i> (Forest Toadlet)			
11.	25433 <i>Pseudophryne guentheri</i> (Crawling Toadlet)			
Bird				
12.	24260 <i>Acanthiza apicalis</i> (Broad-tailed Thornbill, Inland Thornbill)			
13.	24261 <i>Acanthiza chrysorrhoa</i> (Yellow-rumped Thornbill)			
14.	24262 <i>Acanthiza inornata</i> (Western Thornbill)			
15.	24560 <i>Acanthorhynchus superciliosus</i> (Western Spinebill)			
16.	25535 <i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)			
17.	25536 <i>Accipiter fasciatus</i> (Brown Goshawk)			
18.	25755 <i>Acrocephalus australis</i> (Australian Reed Warbler)			
19.	41323 <i>Actitis hypoleucos</i> (Common Sandpiper)		IA	
20.	24312 <i>Anas gracilis</i> (Grey Teal)			
21.	24315 <i>Anas rhynchotis</i> (Australasian Shoveler)			
22.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
23.	47414 <i>Anhinga novaehollandiae</i> (Australasian Darter)			
24.	24561 <i>Anthochaera carunculata</i> (Red Wattlebird)			
25.	24562 <i>Anthochaera lunulata</i> (Western Little Wattlebird)			
26.	24285 <i>Aquila audax</i> (Wedge-tailed Eagle)			
27.	25558 <i>Ardea ibis</i> (Cattle Egret)			
28.	41324 <i>Ardea modesta</i> (great egret, white egret)			
29.	24340 <i>Ardea novaehollandiae</i> (White-faced Heron)			
30.	24341 <i>Ardea pacifica</i> (White-necked Heron)			
31.	41326 <i>Ardenna carneipes</i> (Flesh-footed Shearwater, Fleishy-footed Shearwater)		T	
32.	41328 <i>Ardenna tenuirostris</i> (Short-tailed Shearwater)		IA	
33.	25736 <i>Arenaria interpres</i> (Ruddy Turnstone)		IA	
34.	25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)			
35.	24353 <i>Artamus cyanopterus</i> (Dusky Woodswallow)			
36.	24318 <i>Aythya australis</i> (Hardhead)			
37.	<i>Barnardius zonarius</i>			
38.	24319 <i>Biziura lobata</i> (Musk Duck)			
39.	24724 <i>Cacatua pastinator subsp. pastinator</i> (Muir's Corella, Muir's Corella (Western Corella)			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
		SW WA))		S	
40.	25598	<i>Cacomantis flabelliformis</i> (Fan-tailed Cuckoo)			
41.	24427	<i>Cacomantis flabelliformis</i> subsp. <i>flabelliformis</i> (Fan-tailed Cuckoo)			
42.	42307	<i>Cacomantis pallidus</i> (Pallid Cuckoo)			
43.	24780	<i>Calidris alba</i> (Sanderling)		IA	
44.	24788	<i>Calidris ruficollis</i> (Red-necked Stint)		IA	
45.	24789	<i>Calidris subminuta</i> (Long-toed Stint)		IA	
46.	25717	<i>Calyptorhynchus banksii</i> (Red-tailed Black-Cockatoo)			
47.	24731	<i>Calyptorhynchus banksii</i> subsp. <i>naso</i> (Forest Red-tailed Black Cockatoo)		T	
48.	24733	<i>Calyptorhynchus baudinii</i> (Baudin's Cockatoo, White-tailed Long-billed Black Cockatoo)		T	
49.	24734	<i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo)		T	
50.	48400	<i>Calyptorhynchus</i> sp. (white-tailed black cockatoo)		T	
51.	25575	<i>Charadrius leschenaultii</i> (Greater Sand Plover)		IA	
52.	24377	<i>Charadrius ruficapillus</i> (Red-capped Plover)			
53.	24321	<i>Chenonetta jubata</i> (Australian Wood Duck, Wood Duck)			
54.		<i>Chroicocephalus novaehollandiae</i>			
55.	24288	<i>Circus approximans</i> (Swamp Harrier)			
56.	24774	<i>Cladorhynchus leucocephalus</i> (Banded Stilt)			
57.	25675	<i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
58.	24613	<i>Colluricincla harmonica</i> subsp. <i>rufiventris</i> (Grey Shrike-thrush)			
59.	25568	<i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
60.	25592	<i>Corvus coronoides</i> (Australian Raven)			
61.	24671	<i>Coturnix pectoralis</i> (Stubble Quail)			
62.	25701	<i>Coturnix ypsilophora</i> (Brown Quail)			
63.	25595	<i>Cracticus tibicen</i> (Australian Magpie)			
64.	25596	<i>Cracticus torquatus</i> (Grey Butcherbird)			
65.	24322	<i>Cygnus atratus</i> (Black Swan)			
66.	30901	<i>Dacelo novaeguineae</i> (Laughing Kookaburra)	Y		
67.	25673	<i>Daphoenositta chrysoptera</i> (Varied Sittella)			
68.	25618	<i>Diomedea exulans</i> (Wandering Albatross)		T	
69.	30836	<i>Diomedea exulans</i> subsp. <i>exulans</i> (Snowy Albatross)		T	
70.	24470	<i>Dromaius novaehollandiae</i> (Emu)			
71.		<i>Egretta garzetta</i>			
72.		<i>Egretta novaehollandiae</i>			
73.		<i>Elanus axillaris</i>			
74.	47937	<i>Elseomyia melanops</i> (Black-fronted Dotterel)			
75.		<i>Eolophus roseicapillus</i>			
76.	24651	<i>Eopsaltria australis</i> subsp. <i>griseogularis</i> (Western Yellow Robin)			
77.	24652	<i>Eopsaltria georgiana</i> (White-breasted Robin)			
78.	24567	<i>Epthianura albifrons</i> (White-fronted Chat)			
79.	24818	<i>Eudyptula minor</i> subsp. <i>novaehollandiae</i> (Little Penguin)			
80.	25621	<i>Falco berigora</i> (Brown Falcon)			
81.	25622	<i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
82.	25623	<i>Falco longipennis</i> (Australian Hobby)			
83.	25624	<i>Falco peregrinus</i> (Peregrine Falcon)		S	
84.	25677	<i>Falcunculus frontatus</i> (Crested Shrike-tit)			
85.	24616	<i>Falcunculus frontatus</i> subsp. <i>leucogaster</i> (Western Shrike-tit, Crested Shrike-tit)			
86.	25727	<i>Fulica atra</i> (Eurasian Coot)			
87.	25530	<i>Gerygone fusca</i> (Western Gerygone)			
88.	47962	<i>Glyciphila melanops</i> (Tawny-crowned Honeyeater)			
89.	24443	<i>Grallina cyanoleuca</i> (Magpie-lark)			
90.	25627	<i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
91.	24487	<i>Haematopus longirostris</i> (Pied Oystercatcher)			
92.	24293	<i>Haliaeetus leucogaster</i> (White-bellied Sea-Eagle)			
93.	24295	<i>Haliastur sphenurus</i> (Whistling Kite)			
94.	24296	<i>Hamirostra isura</i> (Square-tailed Kite)			
95.	47965	<i>Hieraaetus morphnoides</i> (Little Eagle)			
96.	25734	<i>Himantopus himantopus</i> (Black-winged Stilt)			
97.	24491	<i>Hirundo neoxena</i> (Welcome Swallow)			
98.	48587	<i>Hydroprogne caspia</i> (Caspian Tern)		IA	
99.	25562	<i>Ixobrychus flavicollis</i> (Black Bittern)			
100.	24510	<i>Larus dominicanus</i> (Kelp Gull)			
101.	25638	<i>Larus pacificus</i> (Pacific Gull)			
102.	24512	<i>Larus pacificus</i> subsp. <i>georgii</i> (Pacific Gull)			
103.	24557	<i>Leipoa ocellata</i> (Malleefowl)		T	
104.	25661	<i>Lichmera indistincta</i> (Brown Honeyeater)			
105.		<i>Lophoictinia isura</i>			
106.	24690	<i>Macronectes giganteus</i> (Southern Giant Petrel)		IA	

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107.	25650 <i>Malurus elegans</i> (Red-winged Fairy-wren)			
108.	25654 <i>Malurus splendens</i> (Splendid Fairy-wren)			
109.	25758 <i>Megalurus gramineus</i> (Little Grassbird)			
110.	24587 <i>Melithreptus chloropsis</i> (Western White-naped Honeyeater)			
111.	24598 <i>Merops ornatus</i> (Rainbow Bee-eater)			
112.	<i>Microcarbo melanoleucos</i>			
113.	25542 <i>Milvus migrans</i> (Black Kite)			
114.	48008 <i>Morus serrator</i> (Australasian Gannet)			
115.	25610 <i>Myiagra inquieta</i> (Restless Flycatcher)			
116.	24738 <i>Neophema elegans</i> (Elegant Parrot)			
117.	24739 <i>Neophema petrophila</i> (Rock Parrot)			
118.	25747 <i>Ninox connivens</i> (Barking Owl)			
119.	25742 <i>Numenius phaeopus</i> (Whimbrel)		IA	
120.	25564 <i>Nycticorax caledonicus</i> (Rufous Night Heron)			
121.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
122.	41347 <i>Onychoprion anaethetus</i> (Bridled Tern)		IA	
123.	24328 <i>Oxyura australis</i> (Blue-billed Duck)		P4	
124.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
125.	24692 <i>Pachyptila belcheri</i> (Slender-billed Prion)			
126.	24693 <i>Pachyptila desolata</i> (Antarctic Prion)			
127.	48591 <i>Pandion cristatus</i> (Osprey, Eastern Osprey)		IA	
128.	25681 <i>Pardalotus punctatus</i> (Spotted Pardalote)			
129.	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			
130.	48057 <i>Pelagodroma marina</i> (White-faced Storm Petrel)			
131.	24648 <i>Pelecanus conspicillatus</i> (Australian Pelican)			
132.	48061 <i>Petrochelidon nigricans</i> (Tree Martin)			
133.	48066 <i>Petroica boodang</i> (Scarlet Robin)			
134.	24659 <i>Petroica goodenovii</i> (Red-capped Robin)			
135.	41348 <i>Pezoporus flaviventris</i> (Western Ground Parrot)		T	
136.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
137.	24664 <i>Phalacrocorax carbo</i> subsp. <i>novaeahollandiae</i> (Great Cormorant)			
138.	24665 <i>Phalacrocorax fuscescens</i> (Black-faced Cormorant)			
139.	24666 <i>Phalacrocorax melanoleucos</i> subsp. <i>melanoleucos</i> (Little Pied Cormorant)			
140.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
141.	25699 <i>Phalacrocorax varius</i> (Pied Cormorant)			
142.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
143.	25587 <i>Phaps elegans</i> (Brush Bronzewing)			
144.	48071 <i>Phylidonyris niger</i> (White-cheeked Honeyeater)			
145.	24596 <i>Phylidonyris novaehollandiae</i> (New Holland Honeyeater)			
146.	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
147.	24842 <i>Platalea regia</i> (Royal Spoonbill)			
148.	25720 <i>Platycercus icterotis</i> (Western Rosella)			
149.	24747 <i>Platycercus spurius</i> (Red-capped Parrot)			
150.	24843 <i>Plegadis falcinellus</i> (Glossy Ibis)		IA	
151.	24383 <i>Pluvialis squatarola</i> (Grey Plover)		IA	
152.	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
153.	24679 <i>Podargus strigoides</i> subsp. <i>brachypterus</i> (Tawny Frogmouth)			
154.	24681 <i>Poliiocephalus poliocephalus</i> (Hoary-headed Grebe)			
155.	25731 <i>Porphyrio porphyrio</i> (Purple Swamphen)			
156.	25732 <i>Porzana pusilla</i> (Baillon's Crake)			
157.	24771 <i>Porzana tabuensis</i> (Spotless Crake)			
158.	24703 <i>Pterodroma lessonii</i> (White-headed Petrel)			
159.	24706 <i>Pterodroma macroptera</i> subsp. <i>gouldi</i> (Great-winged Petrel)			
160.	25712 <i>Puffinus assimilis</i> (Little Shearwater)			
161.	24711 <i>Puffinus assimilis</i> subsp. <i>assimilis</i> (Little Shearwater)			
162.	24715 <i>Puffinus huttoni</i> (Hutton's Shearwater)		T	
163.	24716 <i>Puffinus pacificus</i> (Wedge-tailed Shearwater)		IA	
164.	<i>Purpureicephalus spurius</i>			
165.	24776 <i>Recurvirostra novaehollandiae</i> (Red-necked Avocet)			
166.	48096 <i>Rhipidura albiscapa</i> (Grey Fantail)			
167.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
168.	25534 <i>Sericornis frontalis</i> (White-browed Scrubwren)			
169.	24645 <i>Stagonopleura oculata</i> (Red-eared Firetail)			
170.	48116 <i>Stercorarius antarcticus</i> (Brown Skua)		P4	
171.	24522 <i>Sterna bergii</i> (Crested Tern)			
172.	48594 <i>Sternula nereis</i> (Fairy Tern)			
173.	25655 <i>Stipiturus malachurus</i> (Southern Emu-wren)			
174.	24554 <i>Stipiturus malachurus</i> subsp. <i>westernensis</i> (Southern Emu-wren)			
175.	25597 <i>Strepera versicolor</i> (Grey Currawong)			
176.	25590 <i>Streptopelia senegalensis</i> (Laughing Turtle-Dove)	Y		

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
177.	25705	<i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
178.	24331	<i>Tadorna tadornoides</i> (Australian Shelduck, Mountain Duck)			
179.	34134	<i>Thalassarche carteri</i> (Indian Yellow-nosed Albatross)		T	
180.	34135	<i>Thalassarche cauta</i> (Shy Albatross)		T	
181.	34007	<i>Thalassarche chlororhynchos</i> (Atlantic Yellow-nosed Albatross)		T	
182.	44607	<i>Thalassarche melanophris</i> (Black-browed Albatross)		T	
183.	48597	<i>Thalasseus bergii</i> (Crested Tern)		IA	
184.	48135	<i>Thinornis rubricollis</i> (Hooded Plover, Hooded Dotterel)		P4	
185.	24845	<i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
186.	25549	<i>Todiramphus sanctus</i> (Sacred Kingfisher)			
187.	24808	<i>Tringa nebularia</i> (Common Greenshank, greenshank)		IA	
188.	24809	<i>Tringa stagnatilis</i> (Marsh Sandpiper, little greenshank)		IA	
189.	24855	<i>Tyto novaehollandiae</i> subsp. <i>novaehollandiae</i> (Masked Owl (southwest))		P3	
190.	24386	<i>Vanellus tricolor</i> (Banded Lapwing)			
191.	25765	<i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereye)			

Fish

192.	?	?			
193.		<i>Acanthaluteres brownii</i>			
194.		<i>Acanthaluteres spilomelanurus</i>			
195.		<i>Acanthaluteres vittiger</i>			
196.		<i>Acanthistius serratus</i>			
197.		<i>Acentrogobius bifrenatus</i>			
198.		<i>Achoerodus gouldii</i>			
199.		<i>Aetapcus maculatus</i>			
200.		<i>Afurcagobius suppositus</i>			
201.		<i>Aldrichetta forsteri</i>			
202.		<i>Ammotretis elongatus</i>			
203.		<i>Ammotretis rostratus</i>			
204.		<i>Anoplocapros lenticularis</i>			
205.		<i>Arripis truttacea</i>			
206.		<i>Atherinosoma elongata</i>			
207.		<i>Atherinosoma presbyteroides</i>			
208.		<i>Atherinosoma wallacei</i>			
209.		<i>Aulohalaelurus labiosus</i>			
210.		<i>Austrolabrus maculatus</i>			
211.		<i>Bodianus frenchii</i>			
212.		<i>Bostockia porosa</i>			
213.		<i>Caesioperca rasor</i>			
214.		<i>Callogobius depressus</i>			
215.		<i>Callogobius</i> sp.			
216.		<i>Caprichthys gymnura</i>			
217.		<i>Carangoides ferdau</i>			
218.		<i>Carcharhinus</i> sp.			
219.		<i>Centropogon australis</i>			
220.		<i>Cheilodactylus gibbosus</i>			
221.		<i>Chelidonichthys kumu</i>			
222.		<i>Chelmonops curiusus</i>			
223.		<i>Chromis klunzingeri</i>			
224.		<i>Cirrhimuraena calamus</i>			
225.		<i>Cnidogobius macrocephalus</i>			
226.		<i>Cochleocephalus bicolor</i>			
227.		<i>Cochleocephalus</i> sp.			
228.		<i>Conger wilsoni</i>			
229.		<i>Contusus breviceaudus</i>			
230.		<i>Coris auricularis</i>			
231.		<i>Cristiceps australis</i>			
232.		<i>Dactylophora nigricans</i>			
233.		<i>Dasyatis breviceaudata</i>			
234.		<i>Dinolestes lewini</i>			
235.		<i>Dinolestes</i> sp.			Y
236.		<i>Diodon nichthemerus</i>			
237.		<i>Dipulus hutchinsi</i>			
238.		<i>Dotalabrus alleni</i>			
239.		<i>Edelia vittata</i>			
240.		<i>Elops hawaiiensis</i>			
241.		<i>Engraulis australis</i>			
242.		<i>Enoplosus armatus</i>			
243.		<i>Epinephelides armatus</i>			
244.		<i>Eupetrichthys angustipes</i>			
245.		<i>Eviota bimaculata</i>			

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246.	<i>Favonigobius lateralis</i>			
247.	<i>Furgaleus macki</i>			
248.	34028 <i>Galaxias occidentalis</i> (Western Minnow)			
249.	34026 <i>Galaxiella munda</i> (mud minnow, western dwarf galaxias)		T	
250.	34027 <i>Galaxiella nigrostriata</i> (Black-stripe Minnow, black-striped dwarf galaxias)		T	
251.	<i>Gambusia affinis</i>			
252.	34030 <i>Geotria australis</i> (Pouched Lamprey)		P1	
253.	<i>Girella tephraeops</i>			
254.	<i>Girella zebra</i>			
255.	<i>Gonorynchus greyi</i>			
256.	<i>Gymnapistes marmoratus</i>			
257.	<i>Gymnothorax</i> sp.			
258.	<i>Gymnothorax woodwardi</i>			
259.	<i>Haletta semifasciata</i>			
260.	<i>Halichoeres</i> sp.			
261.	<i>Helcogramma decurrens</i>			
262.	<i>Heteroclinus milwardi</i> (ms)			
263.	<i>Heteroclinus roseus</i>			
264.	<i>Heteroclinus</i> sp.			
265.	<i>Heterodontus portusjacksoni</i>			
266.	<i>Hippocampus</i> sp.			
267.	<i>Hyperlophus vittatus</i>			
268.	<i>Hypnos monopterygium</i>			
269.	<i>Hypoplectrodes nigroruber</i>			
270.	<i>Hypoplectrodes wilsoni</i>			
271.	<i>Hyporhamphus melanochir</i>			
272.	<i>Kyphosus cornelii</i>			
273.	<i>Lactoria concatenatus</i>			
274.	<i>Lepidoblennius marmoratus</i>			
275.	47983 <i>Lepidogalaxias salamandroides</i> (Salamanderfish)		T	
276.	<i>Lotella rhacinus</i>			
277.	<i>Meuschenia flavolineata</i>			
278.	<i>Meuschenia freycineti</i>			
279.	<i>Meuschenia galii</i>			
280.	<i>Microcanthus strigatus</i>			
281.	<i>Mitotichthys meraculus</i>			
282.	<i>Mugil cephalus</i>			
283.	<i>Mugil</i> sp.			
284.	<i>Muraenichthys australis</i>			
285.	<i>Muraenichthys</i> sp.			
286.	<i>Mustelus antarcticus</i>			
287.	34033 <i>Nannatherina balstoni</i> (Balston's Pygmy Perch)		T	
288.	<i>Nannoperca vittata</i>			
289.	<i>Neatypus obliquus</i>			
290.	<i>Neosebastes pandus</i>			
291.	<i>Notolabrus parilus</i>			
292.	<i>Odax acroptilus</i>			
293.	<i>Omegophora cyanopunctata</i>			
294.	<i>Ophiclinus gracilis</i>			
295.	<i>Ophiclinus pectoralis</i>			
296.	<i>Ophisurus serpens</i>			
297.	<i>Ophthalmolepis lineolatus</i>			
298.	<i>Orectolobus ornatus</i>			
299.	<i>Pagrus auratus</i>			
300.	<i>Parablennius postocolomaculatus</i>			
301.	<i>Paraplesiops meleagris</i>			
302.	<i>Parapriacanthus elongatus</i>			
303.	<i>Parma</i> sp.			
304.	<i>Parvicrepis</i> sp. 1			
305.	<i>Pelates sexlineatus</i>			
306.	<i>Pempheris klunzingeri</i>			
307.	<i>Pempheris multiradiata</i>			
308.	<i>Phyllopteryx taeniolatus</i>			
309.	<i>Pictilabrus laticlavus</i>			
310.	<i>Pictilabrus</i> sp.			
311.	<i>Pictilabrus viridis</i>			
312.	<i>Platycephalus arenarius</i>			
313.	<i>Platycephalus</i> sp.			
314.	<i>Pseudocaranx dentex</i>			
315.	<i>Pseudogobius olorum</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
316.	<i>Pseudolabrus biserialis</i>			
317.	<i>Pseudophycis breviuscula</i>			
318.	<i>Pseudorhombus jenynsii</i>			
319.	<i>Pugnaso curtirostris</i>			
320.	<i>Rhabdosargus sarba</i>			
321.	<i>Schuettea woodwardi</i>			
322.	<i>Scobinichthys granulatus</i>			
323.	<i>Scomber australasicus</i>			
324.	<i>Scorpaena n. sp.</i>			
325.	<i>Scorpaena n. sp. A</i>			
326.	<i>Scorpaenodes steenei</i>			
327.	<i>Scorpane n. sp. A</i>			Y
328.	<i>Shark? sp.</i>			
329.	<i>Sillaginodes punctata</i>			
330.	<i>Sillago bassensis</i>			
331.	<i>Sillago schomburgkii</i>			
332.	<i>Sillago sp.</i>			
333.	<i>Siphonognathus beddomei</i>			
334.	<i>Siphonognathus caninus</i>			
335.	<i>Siphonognathus sp.</i>			Y
336.	<i>Sphyaena novaehollandiae</i>			
337.	<i>Spratelloides robustus</i>			
338.	<i>Sticharium dorsale</i>			
339.	<i>Sutorectus tentaculatus</i>			
340.	<i>Synchiropus papilio</i>			
341.	<i>Tandanus bostocki</i>			
342.	<i>Threpterus maculosus</i>			
343.	<i>Thysanophrys cirronasus</i>			
344.	<i>Tilodon sexfasciatum</i>			
345.	<i>Torquigener pleurogramma</i>			
346.	<i>Trachichthys australis</i>			
347.	<i>Trachinops brauni</i>			
348.	<i>Trachinops noarlungae</i>			
349.	<i>Trachurus novaezelandiae</i>			
350.	<i>Trinorfolkia incisa</i>			
351.	<i>Trygonorrhina fasciata</i>			
352.	<i>Vincentia punctata</i>			
353.	<i>Zephyrichthys barryi</i>			
354.	<i>Zeus faber</i>			

Invertebrate

355.	<i>Acariformes sp.</i>			
356.	<i>Adoxotoma sexmaculata</i>			Y
357.	<i>Aeshnidae sp.</i>			
358.	<i>Amphisopodidae sp.</i>			
359.	<i>Ancylidae sp.</i>			
360.	<i>Arachnura higginsi</i>			
361.	<i>Araneus cyphoxis</i>			
362.	<i>Archaeosynthemis occidentalis</i>			
363.	<i>Artoria cingulipes</i>			
364.	<i>Artoria taeniifera</i>			
365.	<i>Austracantha minax</i>			
366.	<i>Australomimetus diabolicus</i>			
367.	34110 <i>Austroassimineia lethia</i> (Cape Leeuwin Freshwater Snail)		T	
368.	<i>Baiami montana</i>			
369.	<i>Baiami tegerarioides</i>			
370.	<i>Baiami torbayensis</i>			
371.	<i>Bennelongia australis</i>			
372.	<i>Caenidae sp.</i>			
373.	<i>Calliuncus labyrinthus</i>			Y
374.	<i>Calymmachernes angulatus</i>			
375.	<i>Ceinidae sp.</i>			
376.	<i>Ceratopogonidae sp.</i>			
377.	<i>Cercophonius granulatus</i>			
378.	<i>Cercophonius sulcatus</i>			
379.	33939 <i>Cherax cainii</i> (Marron)			
380.	<i>Cherax crassimanus</i>			
381.	<i>Cherax destructor</i>			
382.	<i>Cherax preissii</i>			
383.	<i>Cherax quinquecarinatus</i>			
384.	<i>Chironominae sp.</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
385.	<i>Conicochernes crassus</i>			
386.	<i>Corduliidae sp.</i>			
387.	<i>Corixidae sp.</i>			
388.	<i>Cormocephalus hartmeyer</i>			
389.	<i>Cormocephalus novaehollandiae</i>			
390.	<i>Cormocephalus turneri</i>			
391.	<i>Culicidae sp.</i>			
392.	<i>Curculionidae sp.</i>			
393.	<i>Dytiscidae sp.</i>			
394.	<i>Ecnomidae sp.</i>			
395.	<i>Eodelena lapidicola</i>			
396.	<i>Ephydriidae sp.</i>			
397.	<i>Gelastocoridae sp.</i>			
398.	<i>Geogarypus taylori</i>			
399.	<i>Gomphidae sp.</i>			
400.	<i>Gripopterygidae sp.</i>			
401.	<i>Gyrinidae sp.</i>			
402.	<i>Hebridae sp.</i>			
403.	<i>Hemicorduliidae sp.</i>			
404.	<i>Hydraenidae sp.</i>			
405.	<i>Hydrometridae sp.</i>			
406.	<i>Hydrophilidae sp.</i>			
407.	<i>Hydroptilidae sp.</i>			
408.	<i>Hyriidae sp.</i>			
409.	<i>Isopoda leishmanni</i>			
410.	<i>Ixodes australiensis</i>			
411.	<i>Janiridae sp.</i>			
412.	<i>Kangarosa properipes</i>			
413.	<i>Lagynochthonius australicus</i>			
414.	<i>Lampona cylindrata</i>			
415.	<i>Latrodectus hasseltii</i>			
416.	<i>Leptoceridae sp.</i>			
417.	<i>Leptophlebiidae sp.</i>			
418.	<i>Libellulidae sp.</i>			
419.	<i>Limnocythere mowbrayensis</i>			
420.	<i>Lymnaeidae sp.</i>			
421.	<i>Megapodagrionidae sp.</i>			
422.	<i>Mesoveliidae sp.</i>			
423.	<i>Nematoda sp.</i>			
424.	<i>Nepidae sp.</i>			
425.	<i>Nicodamus mainae</i>			
426.	<i>Notonectidae sp.</i>			
427.	<i>Nunciella aspera</i>			
428.	<i>Oligochaeta sp.</i>			
429.	<i>Orthocladinae sp.</i>			
430.	<i>Palaemonidae sp.</i>			
431.	<i>Parastacidae sp.</i>			
432.	<i>Pentastemon intermedium</i>			
433.	<i>Perthiidae sp.</i>			
434.	<i>Pholcus phalangoides</i>			
435.	<i>Planorbidae sp.</i>			
436.	<i>Podykipus collinus</i>			
437.	<i>Pomatiopsidae sp.</i>			
438.	<i>Protochelifer cavernarum</i>			
439.	<i>Pseudotyrannochthonius giganteus</i>			
440.	<i>Raveniella peckorum</i>			
441.	<i>Richardsonianidae sp.</i>			
442.	<i>Sarscypridopsis aculeata</i>			
443.	<i>Scirtidae sp.</i>			
444.	<i>Scytodes thoracica</i>			
445.	<i>Simuliidae sp.</i>			
446.	<i>Siphonotus flavomarginatus</i>			
447.	<i>Sphaeriidae sp.</i>			
448.	<i>Staphylinidae sp.</i>			
449.	<i>Storosa tetrica</i>			
450.	<i>Stratiomyidae sp.</i>			
451.	<i>Syrphidae sp.</i>			
452.	<i>Tanypodinae sp.</i>			
453.	<i>Taphiassa robertsi</i>			
454.	<i>Telephlebiidae sp.</i>			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
455.		<i>Temnocephalidea</i> sp.			
456.		<i>Tipulidae</i> sp.			
457.		<i>Urodacus novaehollandiae</i>			
458.		<i>Veliidae</i> sp.			
459.		<i>Venator immansueta</i>			
460.	34113	<i>Westralunio carteri</i> (Carter's Freshwater Mussel)		T	
461.		<i>Zephyrarchaea janineae</i>			
Mammal					
462.	24208	<i>Arctocephalus forsteri</i> (New Zealand Fur Seal, long-nosed fur-seal)		S	
463.	24209	<i>Arctocephalus tropicalis</i> (Subantarctic fur-seal)		T	
464.		<i>Balaenoptera</i> sp.			
465.	24162	<i>Bettongia penicillata</i> subsp. <i>ogilbyi</i> (Woylie, Brush-tailed Bettong)		T	
466.	24251	<i>Bos taurus</i> (European Cattle)	Y		
467.	24039	<i>Canis lupus</i> subsp. <i>dingo</i> (Dingo)	Y		
468.	24086	<i>Cercartetus concinnus</i> (Western Pygmy-possum, Mundarda)			
469.	24186	<i>Chalinolobus gouldii</i> (Gould's Wattle Bat)			
470.	24187	<i>Chalinolobus morio</i> (Chocolate Wattle Bat)			
471.	24092	<i>Dasyurus geoffroyi</i> (Chuditch, Western Quoll)		T	
472.	24043	<i>Eubalaena australis</i> (Southern Right Whale)		T	
473.	24041	<i>Felis catus</i> (Cat)	Y		
474.	24055	<i>Globicephala melas</i> (Long-finned Pilot Whale)			
475.	24056	<i>Grampus griseus</i> (Risso's Dolphin)			
476.	24215	<i>Hydromys chrysogaster</i> (Water-rat, Rakali)		P4	
477.	48588	<i>Isodon fusciventer</i> (Quenda, southwestern brown bandicoot)		P4	
478.	24132	<i>Macropus fuliginosus</i> (Western Grey Kangaroo)			
479.	24051	<i>Megaptera novaeangliae</i> (Humpback Whale)		S	
480.	24076	<i>Mesoplodon bowdoini</i> (Andrew's Beaked Whale)			
481.	24078	<i>Mesoplodon grayi</i> (Gray's Beaked Whale)			
482.	24223	<i>Mus musculus</i> (House Mouse)	Y		
483.	48022	<i>Notamacropus irma</i> (Western Brush Wallaby)		P4	
484.	24194	<i>Nyctophilus geoffroyi</i> (Lesser Long-eared Bat)			
485.	48070	<i>Phascogale tapoatafa</i> subsp. <i>wambenger</i> (South-western Brush-tailed Phascogale, Wambenger)		S	
486.	24073	<i>Physeter macrocephalus</i> (Sperm Whale)		T	
487.	24163	<i>Potorous gilbertii</i> (Gilbert's Potoroo)		T	
488.	24166	<i>Pseudocheirus occidentalis</i> (Western Ringtail Possum, ngwayir)		T	
489.	24236	<i>Pseudomys fieldi</i> (Shark Bay Mouse, Djoongari)		T	
490.	24241	<i>Pseudomys shortridgei</i> (Heath Mouse, Heath Rat, Dayang)		T	
491.	24063	<i>Pseudorca crassidens</i> (False Killer Whale)			
492.	24243	<i>Rattus fuscipes</i> (Western Bush Rat)			
493.	24245	<i>Rattus rattus</i> (Black Rat)	Y		
494.	24145	<i>Setonix brachyurus</i> (Quokka)		T	
495.	24109	<i>Sminthopsis dolichura</i> (Little long-tailed Dunnart)			
496.	24111	<i>Sminthopsis gilberti</i> (Gilbert's Dunnart)			
497.	25515	<i>Sminthopsis griseoventer</i> (Grey-bellied Dunnart)			
498.	48111	<i>Stenella attenuata</i> (Spotted Dolphin)			
499.	48113	<i>Stenella coeruleoalba</i> (Striped Dolphin)			
500.	24167	<i>Tarsipes rostratus</i> (Honey Possum, Noolbenger)			
501.	24158	<i>Trichosurus vulpecula</i> subsp. <i>vulpecula</i> (Common Brushtail Possum)			
502.	30954	<i>Tursiops aduncus</i> (Indo-Pacific Bottlenose Dolphin)			
503.	24069	<i>Tursiops truncatus</i> (Bottlenose Dolphin)			
504.	24206	<i>Vespadelus regulus</i> (Southern Forest Bat)			
505.	24040	<i>Vulpes vulpes</i> (Red Fox)	Y		
Reptile					
506.	42368	<i>Acritoscincus trilineatus</i> (Western Three-lined Skink)			
507.	24990	<i>Aprasia pulchella</i> (Granite Worm-lizard)			
508.	25335	<i>Caretta caretta</i> (Loggerhead Turtle)		T	
509.	43380	<i>Chelodina colliei</i> (South-western Snake-necked Turtle)			
510.	24980	<i>Christinus marmoratus</i> (Marbled Gecko)			
511.	30899	<i>Ctenophorus adelaidensis</i> (Southern Heath Dragon, Western Heath Dragon)			
512.	25027	<i>Ctenotus australis</i>			
513.	25031	<i>Ctenotus catenifer</i>			
514.	25049	<i>Ctenotus labillardieri</i>			
515.	25346	<i>Dermochelys coriacea</i> (Leatherback Turtle)		T	
516.	25251	<i>Echiopsis curta</i> (Bardick)			
517.	25096	<i>Egernia kingii</i> (King's Skink)			
518.	25100	<i>Egernia napoleonis</i>			
519.	25250	<i>Elapognathus coronatus</i> (Crowned Snake)			
520.	25290	<i>Elapognathus minor</i> (Short-nosed Snake)		P2	

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
521.	30919	<i>Hemiergis gracilipes</i> (skink)			
522.	25118	<i>Hemiergis peronii</i> subsp. <i>tridactyla</i>			
523.	25133	<i>Lerista elegans</i>			
524.	25483	<i>Lerista microtis</i>			
525.	25154	<i>Lerista microtis</i> subsp. <i>microtis</i>			
526.	25240	<i>Morelia spilota</i> subsp. <i>imbricata</i> (Carpet Python)			
527.	25322	<i>Morelia spilota</i> subsp. <i>variegata</i> (Carpet Python)			
528.	25191	<i>Morethia lineocellata</i>			
529.	25252	<i>Notechis scutatus</i> (Tiger Snake)			
530.	25255	<i>Parasuta nigriceps</i>			
531.	24907	<i>Pogona minor</i> subsp. <i>minor</i> (Dwarf Bearded Dragon)			
532.	25511	<i>Pseudonaja affinis</i> (Dugite)			
533.	25259	<i>Pseudonaja affinis</i> subsp. <i>affinis</i> (Dugite)			
534.	25008	<i>Pygopus lepidopodus</i> (Common Scaly Foot)			
535.	25207	<i>Tiliqua rugosa</i> subsp. <i>rugosa</i>			
536.	25225	<i>Varanus rosenbergi</i> (Heath Monitor)			

Conservation Codes

T - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority 1
2 - Priority 2
3 - Priority 3
4 - Priority 4
5 - Priority 5

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 20/05/18 18:46:45

[Summary](#)

[Details](#)

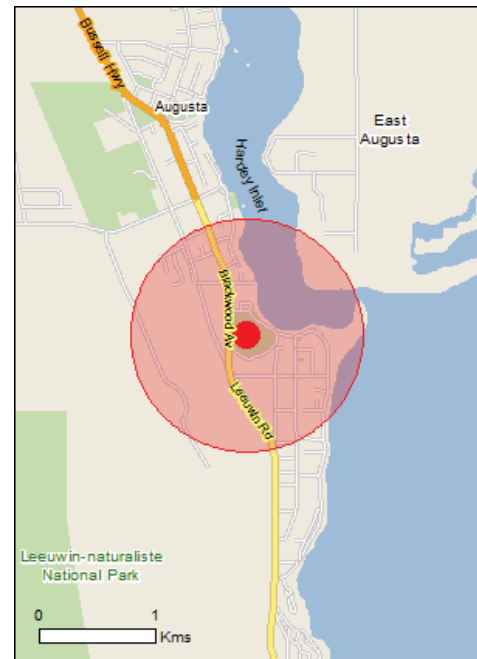
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

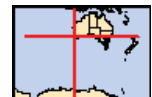
[Acknowledgements](#)



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[Coordinates](#)

Buffer: 1.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	47
Listed Migratory Species:	45

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	67
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	1
Invasive Species:	19
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [\[Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area

Listed Threatened Species [\[Resource Information \]](#)

Name	Status	Type of Presence
Birds		

[Anous tenuirostris melanops](#)

Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area
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[Botaurus poiciloptilus](#)

Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
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[Calidris canutus](#)

Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
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[Calidris ferruginea](#)

Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
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[Calidris tenuirostris](#)

Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
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[Calyptorhynchus banksii naso](#)

Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat likely to occur within area
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[Calyptorhynchus baudinii](#)

Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	Breeding known to occur within area
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[Calyptorhynchus latirostris](#)

Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat likely to occur within area
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[Charadrius leschenaultii](#)

Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
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[Diomedea amsterdamensis](#)

Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
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[Diomedea dabbenena](#)

Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
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Name	Status	Type of Presence
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat likely to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding likely to occur within area
Thalassarche cauta cauta Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta steadi White-capped Albatross [82344]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Fish		
Galaxiella nigrostriata Blackstriped Dwarf Galaxias, Black-stripe Minnow [88677]	Endangered	Species or species habitat likely to occur within area
Nannatherina balstoni Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat likely to occur within area
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area

Name	Status	Type of Presence
<i>Dasyurus geoffroii</i> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area
<i>Eubalaena australis</i> Southern Right Whale [40]	Endangered	Breeding known to occur within area
<i>Megaptera novaeangliae</i> Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
<i>Neophoca cinerea</i> Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat may occur within area
<i>Pseudocheirus occidentalis</i> Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area
<i>Setonix brachyurus</i> Quokka [229]	Vulnerable	Species or species habitat may occur within area
Plants		
<i>Banksia nivea</i> subsp. <i>uliginosa</i> Swamp Honeypot [82766]	Endangered	Species or species habitat likely to occur within area
<i>Caladenia lodgeana</i> Lodge's Spider-orchid [68664]	Critically Endangered	Species or species habitat known to occur within area
<i>Calectasia cyanea</i> Blue Tinsel Lily [7669]	Critically Endangered	Species or species habitat may occur within area
<i>Kennedia lateritia</i> Augusta Kennedia [45985]	Endangered	Species or species habitat likely to occur within area
<i>Sphenotoma drummondii</i> Mountain Paper-heath [21160]	Endangered	Species or species habitat may occur within area
Reptiles		
<i>Caretta caretta</i> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
<i>Chelonia mydas</i> Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<i>Dermochelys coriacea</i> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<i>Natator depressus</i> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Sharks		
<i>Carcharias taurus</i> (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat known to occur within area
<i>Carcharodon carcharias</i> White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<i>Rhincodon typus</i> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Diomedea amsterdamensis		
Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
Diomedea dabbenena		
Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Species or species habitat likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Species or species habitat likely to occur within area
Hydroprogne caspia		
Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area
Macronectes giganteus		
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli		
Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Phoebastria fusca		
Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta		
Tasmanian Shy Albatross [89224]	Vulnerable*	Species or species habitat likely to occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable*	Species or species habitat likely to occur within area
Migratory Marine Species		
Balaena glacialis australis		
Southern Right Whale [75529]	Endangered*	Breeding known to occur within area
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species

Name	Threatened	Type of Presence
Calidris melanotos Pectoral Sandpiper [858]		habitat likely to occur within area Species or species habitat may occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat likely to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Commonwealth Land -

Listed Marine Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area

Name	Threatened	Type of Presence
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phoebastria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat likely to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
Sterna caspia Caspian Tern [59467]		Foraging, feeding or related behaviour known to occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Species or species habitat likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Species or species habitat likely to occur within area
Thinornis rubricollis Hooded Plover [59510]		Breeding known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat may occur within area
Fish		
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys galei Gale's Pipefish [66191]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Hippocampus angustus Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus subelongatus West Australian Seahorse [66722]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus fatiloquus Prophet's Pipefish [66250]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys meraculus Western Crested Pipefish [66259]		Species or species habitat may occur within area
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stigmatopora olivacea a pipefish [74966]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area

Mammals

Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat likely to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat may occur within area

Reptiles

Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

Whales and other Cetaceans

[Resource Information]

Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area

Name	Status	Type of Presence
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

Regional Forest Agreements [\[Resource Information \]](#)

Note that all areas with completed RFAs have been included.

Name	State
South West WA RFA	Western Australia

Invasive Species [\[Resource Information \]](#)

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
Birds		
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species

Name	Status	Type of Presence
		habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-34.3247 115.16376

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-Other groups and individuals](#)

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

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APPENDIX D

HABITAT TREE DETAILS

Habitat trees (DBH >50cm)

Datum = GDA94

Entrance Size Ranges - Small = >5cm, Medium = 5 -10cm, Large = >10cm

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt002	50H	330992	6200464	Karri	20+	>50	0					
wpt003	50H	330979	6200419	Karri	20+	>50	0					
wpt004	50H	330999	6200442	Karri	20+	>50	0					
wpt005	50H	330998	6200441	Karri	20+	>50	0					
wpt006	50H	331009	6200451	Karri	5-10	>50	0					
wpt007	50H	331012	6200447	Karri	5-10	>50	0					
wpt008	50H	331025	6200458	Karri	20+	>50	0					
wpt009	50H	331021	6200471	Karri	20+	>50	0					
wpt014	50H	330944	6200510	Marri	15-20	>50	0					
wpt019	50H	331036	6200475	Karri	5-10	>50	0					
wpt020	50H	331080	6200465	Karri	5-10	>50	0					
wpt021	50H	331162	6200444	Karri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt022	50H	331150	6200343	Karri	15-20	>50	0					
wpt023	50H	331124	6200294	Karri	15-20	>50	0					
wpt024	50H	331131	6200275	Unknown Euc	15-20	>50	0					
wpt025	50H	331113	6200282	Karri	20+	>50	0					
wpt026	50H	331105	6200275	Karri	20+	>50	0					
wpt027	50H	331118	6200266	Karri	20+	>50	0					
wpt028	50H	331123	6200259	Karri	20+	>50	0					
wpt029	50H	331156	6200264	Marri	15-20	>50	0					
wpt030	50H	331162	6200267	Marri	15-20	>50	0					
wpt031	50H	331155	6200288	Marri	15-20	>50	0					
wpt033	50H	331184	6200217	Karri	20+	>50	0					
wpt034	50H	331134	6200214	Marri	15-20	>50	0					
wpt035	50H	331126	6200219	Blackbutt	15-20	>50	0					
wpt036	50H	331137	6200227	Marri	5-10	>50	0					
wpt037	50H	331124	6200249	Karri	20+	>50	0					
wpt038	50H	331118	6200257	Karri	15-20	>50	0					
wpt039	50H	331112	6200230	Marri	15-20	>50	0					
wpt040	50H	331088	6200278	Karri	15-20	>50	0					
wpt041	50H	331080	6200284	Karri	20+	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt042	50H	331067	6200283	Karri	20+	>50	0					
wpt043	50H	331058	6200288	Karri	20+	>50	0					
wpt044	50H	331062	6200279	Karri	20+	>50	0					
wpt045	50H	331060	6200265	Karri	20+	>50	0					
wpt046	50H	331040	6200275	Marri	20+	>50	0					
wpt047	50H	331036	6200274	Karri	20+	>50	0					
wpt048	50H	331054	6200310	Marri	15-20	>50	0					
wpt049	50H	331043	6200312	Karri	15-20	>50	0					
wpt050	50H	331040	6200311	Karri	20+	>50	0					
wpt051	50H	331022	6200279	Marri	20+	>50	0					
wpt052	50H	331016	6200269	Karri	20+	>50	0					
wpt053	50H	331012	6200291	Marri	20+	>50	0					
wpt054	50H	331000	6200293	Marri	15-20	>50	0					
wpt055	50H	330996	6200275	Karri	15-20	>50	0					
wpt056	50H	331010	6200272	Karri	20+	>50	0					
wpt057	50H	331007	6200270	Karri	20+	>50	0					
wpt058	50H	330984	6200289	Karri	20+	>50	0					
wpt059	50H	330995	6200301	Karri	20+	>50	0					
wpt060	50H	330987	6200312	Karri	20+	>50	0					
wpt061	50H	330995	6200324	Marri	20+	>50	0					
wpt062	50H	331022	6200330	Marri	20+	>50	0					
wpt063	50H	330994	6200399	Marri	15-20	>50	0					
wpt064	50H	330992	6200397	Marri	20+	>50	0					
wpt065	50H	330996	6200406	Marri	15-20	>50	0					
wpt066	50H	330971	6200388	Marri	15-20	>50	0					
wpt067	50H	330973	6200378	Dead Marri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt068	50H	330978	6200370	Marri	15-20	>50	0					
wpt069	50H	330986	6200361	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt070	50H	330992	6200360	Blackbutt	15-20	>50	0					
wpt071	50H	330990	6200343	Blackbutt	20+	>50	0					
wpt072	50H	330965	6200372	Marri	15-20	>50	0					
wpt073	50H	330969	6200424	Marri	15-20	>50	0					
wpt074	50H	330966	6200434	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt075	50H	330907	6200485	Karri	15-20	>50	0					
wpt076	50H	330943	6200448	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt077	50H	330954	6200446	Karri	20+	>50	0					
wpt078	50H	330964	6200352	Marri	20+	>50	0					
wpt079	50H	330961	6200354	Karri	20+	>50	0					
wpt080	50H	330960	6200347	Marri	15-20	>50	0					
wpt081	50H	330966	6200344	Marri	15-20	>50	0					
wpt082	50H	330961	6200340	Marri	15-20	>50	0					
wpt083	50H	330964	6200336	Marri	15-20	>50	0					
wpt084	50H	330968	6200323	Dead Marri	15-20	>50	0					
wpt085	50H	330968	6200321	Marri	20+	>50	0					
wpt086	50H	330973	6200313	Marri	20+	>50	0					
wpt087	50H	330971	6200304	Marri	15-20	>50	0					
wpt088	50H	330972	6200288	Karri	15-20	>50	0					
wpt089	50H	330953	6200287	Marri	20+	>50	0					
wpt090	50H	330950	6200304	Marri	15-20	>50	0					
wpt091	50H	330951	6200296	Karri	20+	>50	0					
wpt092	50H	330958	6200306	Karri	15-20	>50	0					
wpt093	50H	330950	6200325	Marri	20+	>50	0					
wpt094	50H	330941	6200375	Marri	15-20	>50	0					
wpt095	50H	330943	6200426	Marri	15-20	>50	0					
wpt096	50H	330957	6200411	Marri	15-20	>50	0					
wpt097	50H	330955	6200400	Karri	20+	>50	0					
wpt098	50H	330954	6200393	Karri	20+	>50	0					
wpt099	50H	330967	6200385	Marri	15-20	>50	0					
wpt100	50H	330957	6200373	Marri	15-20	>50	0					
wpt101	50H	330955	6200377	Blackbutt	15-20	>50	0					
wpt102	50H	330961	6200362	Marri	15-20	>50	0					
wpt103	50H	330948	6200365	Marri	15-20	>50	0					
wpt104	50H	330951	6200353	Marri	15-20	>50	0					
wpt105	50H	330948	6200346	Marri	15-20	>50	0					
wpt106	50H	330953	6200268	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt107	50H	330960	6200272	Karri	15-20	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt108	50H	330965	6200280	Marri	15-20	>50	0					
wpt109	50H	330968	6200273	Karri	20+	>50	0					
wpt110	50H	330963	6200266	Karri	20+	>50	0					
wpt111	50H	330966	6200259	Marri	20+	>50	0					
wpt112	50H	330979	6200262	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt113	50H	330974	6200239	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt114	50H	330963	6200248	Marri	20+	>50	0					
wpt115	50H	330956	6200235	Karri	20+	>50	0					
wpt116	50H	330961	6200223	Marri	20+	>50	0					
wpt117	50H	330969	6200228	Marri	20+	>50	0					
wpt118	50H	330984	6200219	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt119	50H	330994	6200206	Marri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt120	50H	330998	6200209	Karri	15-20	>50	0					
wpt121	50H	331024	6200199	Karri	15-20	>50	0					
wpt122	50H	331032	6200205	Karri	20+	>50	0					
wpt123	50H	331048	6200190	Karri	20+	>50	0					
wpt124	50H	331074	6200195	Karri	15-20	>50	0					
wpt125	50H	331091	6200181	Karri	20+	>50	0					
wpt126	50H	331108	6200169	Marri	15-20	>50	0					
wpt127	50H	331113	6200175	Marri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt128	50H	331121	6200185	Karri	20+	>50	0					
wpt129	50H	331124	6200176	Karri	20+	>50	0					
wpt130	50H	331148	6200182	Karri	20+	>50	0					
wpt131	50H	331140	6200187	Marri	15-20	>50	0					
wpt132	50H	331167	6200188	Karri	20+	>50	0					
wpt133	50H	331091	6200210	Karri	5-10	>50	0					
wpt134	50H	331087	6200213	Karri	5-10	>50	0					
wpt135	50H	331076	6200216	Karri	5-10	>50	0					
wpt136	50H	331068	6200220	Karri	5-10	>50	0					
wpt137	50H	331055	6200231	Karri	5-10	>50	0					
wpt138	50H	331044	6200240	Karri	5-10	>50	0					
wpt139	50H	331039	6200258	Karri	5-10	>50	0					
wpt140	50H	331046	6200254	Karri	5-10	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt141	50H	331055	6200249	Karri	5-10	>50	0					
wpt142	50H	331063	6200240	Karri	5-10	>50	0					
wpt143	50H	331072	6200240	Karri	5-10	>50	0					
wpt144	50H	331079	6200234	Karri	5-10	>50	0					
wpt145	50H	331086	6200227	Karri	5-10	>50	0					
wpt146	50H	331108	6200220	Karri	5-10	>50	0					
wpt147	50H	330910	6200506	Karri	20+	>50	0					
wpt148	50H	330898	6200523	Dead Unknown	0-5	>50	1	Large	No Signs	No Signs	No	Appears too low and shallow
wpt149	50H	330853	6200537	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt150	50H	330836	6200555	Blackbutt	15-20	>50	2+	Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt151	50H	330826	6200553	Blackbutt	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt152	50H	330827	6200557	Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt153	50H	330817	6200552	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt154	50H	330806	6200551	Jarrah	10-15	>50	0					
wpt155	50H	330797	6200541	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt156	50H	330778	6200550	Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt157	50H	330755	6200557	Jarrah	15-20	>50	0					
wpt158	50H	330752	6200561	Jarrah	15-20	>50	0					
wpt159	50H	330744	6200567	Marri	15-20	>50	0					
wpt160	50H	330759	6200585	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt161	50H	330760	6200582	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt162	50H	330759	6200587	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt163	50H	330751	6200593	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt164	50H	330753	6200602	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt165	50H	330733	6200616	Marri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt166	50H	330731	6200621	Marri	20+	>50	0					
wpt167	50H	330750	6200620	Jarrah	15-20	>50	0					
wpt168	50H	330751	6200631	Marri	5-10	>50	1	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt169	50H	330754	6200637	Jarrah	15-20	>50	0					
wpt170	50H	330752	6200644	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt171	50H	330726	6200656	Marri	20+	>50	0					
wpt172	50H	330726	6200656	Marri	20+	>50	0					
wpt173	50H	330741	6200663	Marri	20+	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt174	50H	330754	6200662	Marri	15-20	>50	0					
wpt175	50H	330760	6200647	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt176	50H	330769	6200636	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt177	50H	330765	6200630	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt178	50H	330775	6200617	Jarrah	15-20	>50	0					
wpt179	50H	330774	6200617	Jarrah	15-20	>50	0					
wpt180	50H	330778	6200627	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt181	50H	330784	6200640	Dead Jarrah	10-15	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt182	50H	330777	6200657	Marri	15-20	>50	0					
wpt183	50H	330788	6200659	Marri	10-15	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt184	50H	330798	6200643	Marri	15-20	>50	0					
wpt185	50H	330814	6200654	Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt186	50H	330821	6200662	Marri	15-20	>50	0					
wpt187	50H	330862	6200661	Marri	10-15	>50	0					
wpt188	50H	330869	6200641	Marri	10-15	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt189	50H	330877	6200649	Marri	15-20	>50	0					
wpt190	50H	330915	6200619	Karri	15-20	>50	0					
wpt191	50H	330894	6200608	Marri	0-5	>50	0					
wpt192	50H	330899	6200587	Dead Unknown	5-10	>50	0					
wpt193	50H	330909	6200581	Dead Unknown	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt194	50H	330865	6200560	Dead Unknown	15-20	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt195	50H	330819	6200615	Dead Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt196	50H	330820	6200623	Jarrah	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt197	50H	330789	6200624	Jarrah	15-20	>50	0					
wpt198	50H	330785	6200624	Dead Unknown	5-10	>50	1	Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt199	50H	330787	6200614	Marri	15-20	>50	0					
wpt200	50H	330789	6200596	Jarrah	15-20	>50	0					
wpt201	50H	330795	6200594	Jarrah	15-20	>50	0					
wpt202	50H	330792	6200593	Jarrah	15-20	>50	0					
wpt203	50H	330793	6200588	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt204	50H	330776	6200581	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt205	50H	330781	6200573	Jarrah	20+	>50	0					
wpt206	50H	330802	6200570	Jarrah	20+	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt207	50H	330808	6200576	Jarrah	20+	>50	0					
wpt208	50H	330795	6200561	Jarrah	15-20	>50	0					
wpt209	50H	330815	6200571	Jarrah	0-5	>50	0					
wpt210	50H	330811	6200601	Marri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt211	50H	330801	6200594	Marri	20+	>50	0					
wpt212	50H	330892	6200511	Marri	15-20	>50	0					
wpt213	50H	330889	6200503	Dead Unknown	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt214	50H	330892	6200496	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt215	50H	330880	6200512	Dead Unknown	5-10	>50	0					
wpt216	50H	330891	6200486	Blackbutt	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt217	50H	330887	6200486	Marri	15-20	>50	0					
wpt218	50H	330915	6200469	Dead Unknown	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt219	50H	330893	6200453	Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt220	50H	330903	6200450	Marri	10-15	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt221	50H	330891	6200448	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt222	50H	330884	6200459	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt223	50H	330871	6200454	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt224	50H	330872	6200454	Marri	10-15	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt225	50H	330862	6200452	Marri	0-5	>50	0					
wpt226	50H	330873	6200478	Marri	15-20	>50	0					
wpt227	50H	330867	6200476	Dead Unknown	5-10	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt228	50H	330851	6200479	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt229	50H	330846	6200474	Dead Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt230	50H	330837	6200480	Marri	15-20	>50	0					
wpt231	50H	330827	6200469	Jarrah	15-20	>50	0					
wpt232	50H	330820	6200475	Marri	15-20	>50	0					
wpt233	50H	330817	6200470	Marri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt234	50H	330807	6200474	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt235	50H	330808	6200486	Dead Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt236	50H	330801	6200465	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt237	50H	330786	6200477	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt238	50H	330793	6200478	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt239	50H	330803	6200491	Jarrah	20+	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt240	50H	330813	6200505	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt241	50H	330801	6200514	Jarrah	15-20	>50	0					
wpt242	50H	330785	6200528	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt243	50H	330781	6200524	Marri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt244	50H	330766	6200528	Marri	15-20	>50	0					
wpt245	50H	330775	6200536	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt246	50H	330798	6200530	Marri	15-20	>50	0					
wpt247	50H	330807	6200529	Marri	15-20	>50	0					
wpt248	50H	330816	6200517	Marri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt249	50H	330825	6200526	Marri	15-20	>50	0					
wpt250	50H	330847	6200529	Marri	15-20	>50	1	Large	No Signs	No Signs	No	Appears too shallow
wpt251	50H	330852	6200523	Blackbutt	15-20	>50	0					
wpt252	50H	330862	6200531	Marri	15-20	>50	0					
wpt253	50H	330880	6200528	Dead Unknown	5-10	>50	1	Large	No Signs	No Signs	No	Appears too shallow
wpt254	50H	330858	6200512	Dead Marri	10-15	>50	2+	Medium-Large	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt255	50H	330848	6200508	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt256	50H	330835	6200506	Dead Unknown	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt257	50H	330836	6200505	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt258	50H	330822	6200508	Marri	15-20	>50	0					
wpt259	50H	330823	6200508	Marri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt260	50H	330821	6200505	Jarrah	15-20	>50	0					
wpt261	50H	330840	6200491	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt262	50H	330852	6200491	Blackbutt	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt263	50H	330859	6200494	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt264	50H	330867	6200496	Marri	20+	>50	0					
wpt265	50H	330873	6200495	Blackbutt	15-20	>50	2+	Small-Medium	Bees	No Signs	No	Internal dimensions of hollows unknown
wpt266	50H	330909	6200443	Blackbutt	15-20	>50	0					
wpt267	50H	330902	6200430	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt268	50H	330917	6200410	Marri	15-20	>50	0					
wpt269	50H	330918	6200389	Blackbutt	15-20	>50	0					
wpt270	50H	330905	6200383	Blackbutt	15-20	>50	0					
wpt271	50H	330893	6200355	Dead Unknown	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt272	50H	330917	6200344	Blackbutt	20+	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt273	50H	330894	6200339	Karri	20+	>50	0					
wpt274	50H	330877	6200334	Karri	20+	>50	0					
wpt275	50H	330850	6200328	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt276	50H	330830	6200339	Karri	20+	>50	0					
wpt277	50H	330856	6200291	Dead Marri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt278	50H	330878	6200298	Marri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt279	50H	330887	6200299	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt280	50H	330897	6200292	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt281	50H	330876	6200282	Karri	20+	>50	2+	Small-Large (cockatoo)	Black Cockatoo	No Signs	Yes	Chew marks ?
wpt282	50H	330872	6200272	Karri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt283	50H	330875	6200265	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt284	50H	330879	6200267	Karri	20+	>50	0					
wpt285	50H	330889	6200267	Karri	20+	>50	0					
wpt286	50H	330897	6200274	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt287	50H	330905	6200271	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt288	50H	330898	6200264	Jarrah	15-20	>50	0					
wpt289	50H	330887	6200249	Jarrah	20+	>50	0					
wpt290	50H	330880	6200241	Karri	20+	>50	0					
wpt291	50H	330882	6200235	Karri	20+	>50	0					
wpt292	50H	330899	6200234	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt293	50H	330899	6200240	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt294	50H	330906	6200215	Marri	15-20	>50	0					
wpt295	50H	330899	6200197	Karri	15-20	>50	0					
wpt296	50H	330895	6200196	Karri	15-20	>50	0					
wpt297	50H	330893	6200195	Karri	15-20	>50	0					
wpt298	50H	330899	6200178	Karri	15-20	>50	0					
wpt299	50H	330907	6200166	Karri	15-20	>50	0					
wpt300	50H	330912	6200162	Karri	20+	>50	0					
wpt301	50H	330921	6200147	Karri	15-20	>50	0					
wpt302	50H	330925	6200132	Jarrah	15-20	>50	0					
wpt303	50H	330927	6200112	Marri	15-20	>50	0					
wpt304	50H	330925	6200192	Dead Marri	15-20	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt305	50H	330921	6200194	Dead Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt306	50H	330915	6200185	Jarrah	15-20	>50	0					
wpt307	50H	331250	6200225	Karri	20+	>50	0					
wpt308	50H	330919	6200210	Marri	20+	>50	0					
wpt309	50H	330918	6200231	Marri	20+	>50	0					
wpt310	50H	330915	6200228	Dead Unknown	5-10	>50	0					
wpt311	50H	330921	6200257	Karri	15-20	>50	0					
wpt312	50H	330905	6200253	Jarrah	15-20	>50	0					
wpt313	50H	330907	6200270	Marri	20+	>50	0					
wpt314	50H	330913	6200275	Marri	20+	>50	0					
wpt315	50H	330912	6200292	Dead Unknown	10-15	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt316	50H	330911	6200301	Dead Unknown	5-10	>50	1	Large	No Signs	No Signs	No	Appears too shallow
wpt317	50H	330910	6200301	Karri	15-20	>50	0					
wpt318	50H	330913	6200305	Karri	15-20	>50	0					
wpt319	50H	330924	6200298	Karri	15-20	>50	0					
wpt320	50H	330918	6200304	Karri	15-20	>50	0					
wpt321	50H	330922	6200309	Karri	15-20	>50	0					
wpt322	50H	330915	6200315	Dead Unknown	0-5	>50	1	Large	No Signs	No Signs	No	Appears too shallow
wpt323	50H	330918	6200316	Karri	15-20	>50	0					
wpt324	50H	330877	6200332	Karri	15-20	>50	0					
wpt325	50H	330843	6200371	Karri	10-15	>50	2+	Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt326	50H	330832	6200376	Dead Unknown	5-10	>50	0					
wpt327	50H	330837	6200386	Karri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt328	50H	330837	6200400	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt329	50H	330829	6200416	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt330	50H	330832	6200425	Karri	15-20	>50	0					
wpt331	50H	330840	6200429	Marri	15-20	>50	0					
wpt332	50H	330836	6200438	Jarrah	15-20	>50	0					
wpt333	50H	330827	6200443	Jarrah	15-20	>50	0					
wpt334	50H	330826	6200449	Marri	15-20	>50	0					
wpt335	50H	330817	6200436	Marri	15-20	>50	0					
wpt336	50H	330812	6200409	Karri	20+	>50	0					
wpt337	50H	330813	6200456	Jarrah	15-20	>50	0					
wpt338	50H	330810	6200466	Jarrah	15-20	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt339	50H	330823	6200464	Jarrah	15-20	>50	0					
wpt340	50H	330836	6200457	Blackbutt	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt341	50H	330848	6200449	Dead Unknown	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt342	50H	330852	6200457	Karri	20+	>50	0					
wpt343	50H	330863	6200440	Dead Marri	10-15	>50	0					
wpt344	50H	330855	6200438	Jarrah	15-20	>50	0					
wpt345	50H	330859	6200429	Karri	15-20	>50	0					
wpt346	50H	330873	6200410	Dead Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt347	50H	330869	6200433	Karri	20+	>50	0					
wpt348	50H	330875	6200437	Marri	5-10	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt349	50H	330875	6200442	Marri	10-15	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt350	50H	330878	6200431	Marri	15-20	>50	0					
wpt351	50H	330887	6200416	Dead Karri	15-20	>50	2+	Medium-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt352	50H	330889	6200398	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt353	50H	330880	6200392	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt354	50H	330866	6200401	Dead Unknown	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt355	50H	330873	6200384	Dead Unknown	15-20	>50	0					
wpt357	50H	331260	6200224	Blackbutt	15-20	>50	0					
wpt358	50H	331269	6200236	Karri	15-20	>50	0					
wpt359	50H	331263	6200248	Karri	15-20	>50	0					
wpt360	50H	331261	6200207	Karri	15-20	>50	0					
wpt361	50H	331263	6200201	Karri	15-20	>50	0					
wpt362	50H	331250	6200196	Karri	15-20	>50	0					
wpt363	50H	331236	6200193	Karri	15-20	>50	0					
wpt364	50H	331234	6200201	Karri	15-20	>50	0					
wpt365	50H	331221	6200200	Marri	15-20	>50	0					
wpt366	50H	331217	6200184	Marri	20+	>50	0					
wpt367	50H	331236	6200158	Marri	15-20	>50	0					
wpt368	50H	331240	6200146	Karri	15-20	>50	0					
wpt369	50H	331252	6200114	Marri	15-20	>50	0					
wpt370	50H	331265	6200099	Blackbutt	15-20	>50	0					
wpt371	50H	331253	6200073	Marri	15-20	>50	0					
wpt372	50H	331255	6200065	Marri	15-20	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt373	50H	331258	6200060	Marri	20+	>50	0					
wpt374	50H	331209	6200043	Karri	15-20	>50	0					
wpt375	50H	331204	6200045	Karri	15-20	>50	0					
wpt376	50H	331221	6200069	Karri	15-20	>50	0					
wpt377	50H	331229	6200076	Karri	15-20	>50	0					
wpt378	50H	331223	6200110	Dead Marri	20+	>50	0					
wpt379	50H	331221	6200109	Marri	15-20	>50	0					
wpt380	50H	331255	6200129	Karri	15-20	>50	0					
wpt381	50H	331256	6200136	Karri	15-20	>50	0					
wpt382	50H	331266	6200148	Blackbutt	15-20	>50	0					
wpt383	50H	331261	6200160	Karri	15-20	>50	0					
wpt384	50H	331249	6200176	Dead Blackbutt	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt385	50H	331253	6200180	Karri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt386	50H	331257	6200187	Karri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt387	50H	331197	6200187	Karri	15-20	>50	0					
wpt388	50H	331180	6200175	Karri	15-20	>50	0					
wpt389	50H	331177	6200169	Karri	15-20	>50	0					
wpt390	50H	331169	6200166	Karri	15-20	>50	0					
wpt391	50H	331165	6200154	Marri	15-20	>50	0					
wpt392	50H	331149	6200157	Karri	15-20	>50	0					
wpt393	50H	331125	6200146	Marri	15-20	>50	0					
wpt394	50H	331122	6200149	Marri	20+	>50	0					
wpt395	50H	331125	6200152	Marri	20+	>50	0					
wpt396	50H	331109	6200135	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt397	50H	331118	6200127	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt398	50H	331103	6200120	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt399	50H	331102	6200138	Marri	20+	>50	0					
wpt400	50H	331094	6200142	Marri	15-20	>50	0					
wpt401	50H	331088	6200142	Dead Marri	20+	>50	0					
wpt402	50H	331078	6200140	Karri	20+	>50	0					
wpt403	50H	331051	6200141	Karri	15-20	>50	0					
wpt404	50H	331061	6200142	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt405	50H	331060	6200135	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt406	50H	331056	6200144	Marri	15-20	>50	0					
wpt407	50H	331053	6200137	Marri	15-20	>50	0					
wpt408	50H	331036	6200139	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt409	50H	331031	6200135	Dead Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt410	50H	331033	6200129	Marri	15-20	>50	1	Large	No Signs	No Signs	No	Appears too shallow
wpt411	50H	331020	6200160	Karri	20+	>50	0					
wpt412	50H	331023	6200171	Karri	20+	>50	0					
wpt413	50H	331010	6200167	Karri	15-20	>50	0					
wpt414	50H	331011	6200156	Karri	15-20	>50	0					
wpt415	50H	331007	6200166	Karri	20+	>50	0					
wpt416	50H	331000	6200158	Karri	20+	>50	0					
wpt417	50H	330990	6200162	Marri	20+	>50	0					
wpt418	50H	330995	6200169	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt419	50H	330991	6200188	Karri	20+	>50	2+	Small-Large	No Signs	No Signs	No	Wrong orientation
wpt420	50H	330970	6200207	Karri	15-20	>50	0					
wpt421	50H	330956	6200196	Karri	20+	>50	0					
wpt422	50H	330962	6200202	Karri	20+	>50	0					
wpt423	50H	330948	6200206	Marri	15-20	>50	0					
wpt424	50H	330952	6200190	Marri	20+	>50	0					
wpt425	50H	330956	6200192	Marri	20+	>50	2+	Medium-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt426	50H	330956	6200187	Karri	20+	>50	0					
wpt427	50H	330965	6200173	Karri	5-10	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Possibly too low and shallow
wpt428	50H	330966	6200163	Marri	15-20	>50	0					
wpt429	50H	330948	6200167	Karri	15-20	>50	0					
wpt430	50H	330950	6200153	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt431	50H	330965	6200160	Karri	20+	>50	0					
wpt432	50H	330962	6200128	Karri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt433	50H	330956	6200137	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt434	50H	330954	6200131	Karri	15-20	>50	0					
wpt435	50H	330967	6200129	Karri	15-20	>50	0					
wpt436	50H	330961	6200109	Karri	20+	>50	0					
wpt437	50H	330966	6200106	Karri	20+	>50	0					
wpt438	50H	330960	6200098	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt439	50H	330962	6200081	Jarrah	20+	>50	0					
wpt440	50H	330963	6200081	Karri	20+	>50	0					
wpt441	50H	330978	6200115	Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt442	50H	330974	6200120	Jarrah	15-20	>50	0					
wpt443	50H	330972	6200147	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt444	50H	330992	6200150	Marri	15-20	>50	0					
wpt445	50H	330996	6200148	Blackbutt	15-20	>50	2+	Medium-Large	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt446	50H	330999	6200137	Dead Unknown	5-10	>50	1	Large	No Signs	No Signs	No	Appears too shallow
wpt447	50H	331013	6200145	Karri	20+	>50	0					
wpt448	50H	331008	6200116	Karri	20+	>50	0					
wpt449	50H	330998	6200116	Karri	20+	>50	0					
wpt450	50H	330997	6200100	Karri	20+	>50	0					
wpt451	50H	330992	6200097	Karri	15-20	>50	0					
wpt452	50H	330988	6200103	Karri	20+	>50	0					
wpt453	50H	330989	6200090	Jarrah	15-20	>50	0					
wpt454	50H	331001	6200089	Karri	20+	>50	0					
wpt455	50H	331003	6200087	Marri	20+	>50	0					
wpt456	50H	331004	6200084	Jarrah	15-20	>50	0					
wpt457	50H	331009	6200079	Marri	15-20	>50	0					
wpt458	50H	331005	6200061	Karri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt459	50H	331005	6200053	Jarrah	15-20	>50	0					
wpt460	50H	330992	6200048	Jarrah	15-20	>50	0					
wpt461	50H	330986	6200054	Jarrah	5-10	>50	1	Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt462	50H	330987	6200060	Jarrah	0-5	>50	0					
wpt463	50H	330979	6200079	Marri	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt464	50H	330981	6200078	Dead Unknown	10-15	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt465	50H	330971	6200086	Karri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt466	50H	330978	6200070	Marri	15-20	>50	0					
wpt467	50H	330983	6200050	Karri	15-20	>50	0					
wpt468	50H	331013	6200037	Marri	15-20	>50	0					
wpt469	50H	331020	6200050	Marri	15-20	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt470	50H	331028	6200049	Jarrah	15-20	>50	0					
wpt471	50H	331033	6200048	Marri	15-20	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt472	50H	331044	6200046	Dead Blackbutt	15-20	>50	0					
wpt473	50H	331041	6200058	Jarrah	15-20	>50	0					
wpt474	50H	331059	6200063	Karri	20+	>50	0					
wpt475	50H	331066	6200053	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt476	50H	331073	6200033	Karri	15-20	>50	0					
wpt477	50H	331076	6200050	Marri	15-20	>50	0					
wpt478	50H	331091	6200054	Marri	20+	>50	2+	Small-Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt479	50H	331103	6200049	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt480	50H	331111	6200050	Karri	15-20	>50	0					
wpt481	50H	331120	6200051	Karri	15-20	>50	0					
wpt482	50H	331130	6200050	Karri	15-20	>50	0					
wpt483	50H	331135	6200053	Karri	15-20	>50	0					
wpt484	50H	331143	6200048	Karri	15-20	>50	0					
wpt485	50H	331142	6200045	Karri	15-20	>50	0					
wpt486	50H	331144	6200056	Karri	15-20	>50	0					
wpt487	50H	331179	6200045	Karri	15-20	>50	0					
wpt488	50H	331206	6200175	Karri	20+	>50	0					
wpt489	50H	331217	6200169	Karri	15-20	>50	0					
wpt490	50H	331199	6200161	Marri	20+	>50	0					
wpt491	50H	331188	6200150	Blackbutt	15-20	>50	0					
wpt492	50H	331182	6200150	Blackbutt	15-20	>50	0					
wpt493	50H	331179	6200156	Blackbutt	15-20	>50	0					
wpt494	50H	331168	6200136	Dead Marri	15-20	>50	0					
wpt495	50H	331163	6200126	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt496	50H	331158	6200147	Blackbutt	20+	>50	0					
wpt497	50H	331142	6200133	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt498	50H	331124	6200121	Marri	20+	>50	0					
wpt499	50H	331124	6200118	Karri	20+	>50	0					
wpt500	50H	331128	6200109	Karri	20+	>50	0					
wpt501	50H	331123	6200102	Karri	20+	>50	0					
wpt502	50H	331124	6200104	Karri	20+	>50	0					
wpt503	50H	331112	6200106	Karri	20+	>50	0					
wpt504	50H	331113	6200098	Karri	5-10	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt505	50H	331108	6200098	Karri	20+	>50	0					
wpt506	50H	331104	6200085	Karri	20+	>50	0					
wpt507	50H	331110	6200086	Karri	20+	>50	0					
wpt508	50H	331112	6200076	Karri	20+	>50	0					
wpt509	50H	331107	6200074	Dead Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt510	50H	331096	6200069	Dead Unknown	15-20	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt511	50H	331086	6200074	Dead Unknown	15-20	>50	2+	Medium-Large	No Signs	No Signs	No	Appears too shallow
wpt512	50H	331082	6200069	Karri	20+	>50	0					
wpt513	50H	331077	6200074	Karri	20+	>50	0					
wpt514	50H	331068	6200073	Karri	15-20	>50	0					
wpt515	50H	331063	6200081	Marri	15-20	>50	0					
wpt516	50H	331064	6200098	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt517	50H	331047	6200094	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt518	50H	331052	6200094	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt519	50H	331043	6200075	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt520	50H	331032	6200079	Karri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt521	50H	331027	6200072	Jarrah	15-20	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt522	50H	331018	6200068	Jarrah	15-20	>50	1	Large (cockatoo)	No Signs	No Signs	Yes	Internal dimensions of hollows unknown
wpt523	50H	331019	6200085	Marri	15-20	>50	0					
wpt524	50H	331027	6200096	Marri	15-20	>50	0					
wpt525	50H	331016	6200101	Marri	20+	>50	0					
wpt526	50H	331027	6200104	Marri	20+	>50	0					
wpt527	50H	331024	6200108	Jarrah	15-20	>50	0					
wpt528	50H	331025	6200123	Karri	15-20	>50	0					
wpt529	50H	331034	6200122	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt530	50H	331040	6200105	Karri	20+	>50	0					
wpt531	50H	331041	6200099	Karri	15-20	>50	0					
wpt532	50H	331034	6200104	Karri	10-15	>50	1	Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt533	50H	331051	6200106	Marri	15-20	>50	0					
wpt534	50H	331060	6200117	Karri	15-20	>50	0					
wpt535	50H	331056	6200120	Karri	20+	>50	0					
wpt536	50H	331048	6200130	Karri	15-20	>50	0					
wpt537	50H	331053	6200127	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt538	50H	331057	6200126	Karri	20+	>50	0					
wpt539	50H	331061	6200115	Karri	20+	>50	0					
wpt540	50H	331066	6200121	Karri	15-20	>50	0					
wpt541	50H	331079	6200115	Marri	15-20	>50	0					
wpt542	50H	331084	6200131	Blackbutt	20+	>50	0					
wpt543	50H	331087	6200123	Karri	20+	>50	0					
wpt544	50H	331100	6200120	Karri	20+	>50	0					
wpt545	50H	331103	6200115	Karri	20+	>50	0					
wpt546	50H	331096	6200126	Karri	20+	>50	0					
wpt547	50H	331110	6200115	Karri	20+	>50	0					
wpt548	50H	331113	6200119	Karri	20+	>50	0					
wpt549	50H	331111	6200121	Karri	20+	>50	0					
wpt550	50H	331103	6200097	Karri	20+	>50	0					
wpt551	50H	331092	6200092	Karri	15-20	>50	0					
wpt552	50H	331088	6200096	Marri	15-20	>50	0					
wpt553	50H	331074	6200095	Jarrah	15-20	>50	1	Large (cockatoo)	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt554	50H	331068	6200104	Marri	15-20	>50	0					
wpt555	50H	331098	6200086	Marri	15-20	>50	0					
wpt556	50H	331123	6200070	Karri	20+	>50	0					
wpt557	50H	331131	6200072	Karri	20+	>50	0					
wpt558	50H	331126	6200061	Karri	20+	>50	0					
wpt559	50H	331128	6200055	Karri	20+	>50	0					
wpt560	50H	331124	6200058	Karri	20+	>50	0					
wpt561	50H	331131	6200068	Marri	15-20	>50	0					
wpt562	50H	331143	6200067	Karri	20+	>50	0					
wpt563	50H	331145	6200069	Karri	15-20	>50	0					
wpt564	50H	331147	6200074	Karri	20+	>50	0					
wpt565	50H	331168	6200071	Marri	15-20	>50	0					
wpt566	50H	331176	6200072	Marri	15-20	>50	0					
wpt567	50H	331181	6200078	Marri	15-20	>50	0					
wpt568	50H	331194	6200076	Marri	15-20	>50	0					
wpt569	50H	331197	6200093	Karri	15-20	>50	0					
wpt570	50H	331209	6200092	Karri	15-20	>50	0					

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size Range (cm)	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt571	50H	331187	6200102	Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt572	50H	331179	6200101	Karri	15-20	>50	0					
wpt573	50H	331160	6200089	Karri	20+	>50	0					
wpt574	50H	331146	6200098	Karri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt575	50H	331150	6200091	Karri	15-20	>50	0					
wpt576	50H	331148	6200083	Karri	15-20	>50	0					
wpt577	50H	331142	6200083	Karri	15-20	>50	0					
wpt578	50H	331135	6200093	Dead Marri	20+	>50	2+	Small-Medium	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt579	50H	331132	6200080	Karri	15-20	>50	0					
wpt580	50H	331148	6200128	Marri	15-20	>50	0					
wpt581	50H	331155	6200122	Marri	15-20	>50	0					
wpt582	50H	331161	6200120	Marri	15-20	>50	0					
wpt583	50H	331174	6200117	Marri	15-20	>50	0					
wpt584	50H	331185	6200120	Marri	20+	>50	2+	Small	No Signs	No Signs	No	Internal dimensions of hollows unknown
wpt585	50H	331187	6200115	Marri	20+	>50	0					
wpt586	50H	331186	6200114	Dead Marri	10-15	>50	0					
wpt587	50H	331187	6200115	Marri	15-20	>50	0					
wpt588	50H	331190	6200120	Marri	5-10	>50	0					
wpt589	50H	331196	6200134	Karri	15-20	>50	0					
wpt590	50H	331195	6200138	Karri	15-20	>50	0					
wpt591	50H	331195	6200147	Marri	15-20	>50	0					
wpt592	50H	331212	6200147	Karri	20+	>50	0					
wpt593	50H	331218	6200150	Karri	15-20	>50	0					
wpt594	50H	331220	6200146	Karri	15-20	>50	0					

APPENDIX E

CAMERA TRAP RESULTS

Camera Trap Results

Camera Number	Date	Common Name	Species	Number
GH 11	05/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	2
GH 11	05/03/2018	Red-winged Fairy-wren	<i>Malurus elegans</i>	1
GH 11	09/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 11	10/03/2018	Black Rat	<i>Rattus rattus</i>	1
GH 11	10/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 11	10/03/2018	South-west Brush-tailed Phascogale	<i>Phascogale tapoatafa wambenger</i>	1
GH 11	12/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 14	05/03/2018	Western Grey Kangaroo	<i>Macropus fuliginosus</i>	1
GH 14	07/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 14	08/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 14	08/03/2018	South-west Brush-tailed Phascogale	<i>Phascogale tapoatafa wambenger</i>	1
GH 14	09/03/2018	South-west Brush-tailed Phascogale	<i>Phascogale tapoatafa wambenger</i>	1
GH 14	14/03/2018	Quenda	<i>Isodon fusciventer</i>	1
GH 14	15/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 14	15/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 14	18/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 14	20/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 14	21/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 16	09/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 17	04/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 17	06/03/2018	Quenda	<i>Isodon fusciventer</i>	1
GH 17	07/03/2018	Quenda	<i>Isodon fusciventer</i>	1
GH 17	09/03/2018	Western Grey Kangaroo	<i>Macropus fuliginosus</i>	1
GH 17	11/03/2018	Quenda	<i>Isodon fusciventer</i>	1
GH 17	12/03/2018	House Mouse	<i>Mus musculus</i>	1
GH 17	16/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 17	18/03/2018	South-west Brush-tailed Phascogale	<i>Phascogale tapoatafa wambenger</i>	1
GH 18	08/03/2018	White-browed Scrubwren	<i>Sericornis frontalis</i>	1
GH 21	05/03/2018	Quenda	<i>Isodon fusciventer</i>	1
GH 21	08/03/2018	Western Grey Kangaroo	<i>Macropus fuliginosus</i>	1
GH 21	13/03/2018	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	1
GH 21	20/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 21	21/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 21	23/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 22	05/03/2018	Black Rat	<i>Rattus rattus</i>	1
GH 22	05/03/2018	Quenda	<i>Isodon fusciventer</i>	1
GH 22	05/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 22	07/03/2018	Black Rat	<i>Rattus rattus</i>	1
GH 22	08/03/2018	Grey Fantail	<i>Rhipidura fuliginosa</i>	1
GH 22	08/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	04/03/2018	Black Rat	<i>Rattus rattus</i>	1
GH 23	04/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	05/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	05/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	06/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	06/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	07/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	07/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	08/03/2018	Red Fox	<i>Vulpes vulpes</i>	1

Camera Number	Date	Common Name	Species	Number
GH 23	08/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	09/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	10/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	10/03/2018	Western Grey Kangaroo	<i>Macropus fuliginosus</i>	1
GH 23	11/03/2018	Common Bronzewing	<i>Phaps chalcoptera</i>	1
GH 23	11/03/2018	Red Wattlebird	<i>Anthochaera carunculata</i>	1
GH 23	13/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	14/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	15/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	17/03/2018	Western Bush Rat	<i>Rattus fuscipes</i>	1
GH 23	17/03/2018	Western Grey Kangaroo	<i>Macropus fuliginosus</i>	1
GH 23	18/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	20/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	21/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	22/03/2018	Red Fox	<i>Vulpes vulpes</i>	1
GH 23	23/03/2018	Western Grey Kangaroo	<i>Macropus fuliginosus</i>	1
GH 25	05/03/2018	King's Skink	<i>Egernia kingii</i>	1
GH 25	11/03/2018	South-west Brush-tailed Phascogale	<i>Phascogale tapoatafa wambenger</i>	1
GH 25	16/03/2018	Red-winged Fairy-wren	<i>Malurus elegans</i>	1
GH 25	23/03/2018	King's Skink	<i>Egernia kingii</i>	1
GH 25	24/03/2018	Silvereye	<i>Zosterops lateralis</i>	1
GH 26	04/03/2018	Western Grey Kangaroo	<i>Macropus fuliginosus</i>	1
GH 26	04/03/2018	Yellow-footed Antechinus	<i>Antechinus flavipes</i>	1
GH 26	05/03/2018	Red-winged Fairy-wren	<i>Malurus elegans</i>	1
GH 26	05/03/2018	Yellow-footed Antechinus	<i>Antechinus flavipes</i>	1
GH 26	05/03/2018	Yellow-footed Antechinus	<i>Antechinus flavipes</i>	2
GH 26	06/03/2018	Yellow-footed Antechinus	<i>Antechinus flavipes</i>	1
GH 26	09/03/2018	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	1
GH 26	11/03/2018	Yellow-footed Antechinus	<i>Antechinus flavipes</i>	1
GH 26	13/03/2018	Yellow-footed Antechinus	<i>Antechinus flavipes</i>	1
GH 26	21/03/2018	Western Ringtail Possum	<i>Pseudocheirus occidentalis</i>	1

APPENDIX F

PROPOSED DEVELOPMENT INITIATIVES

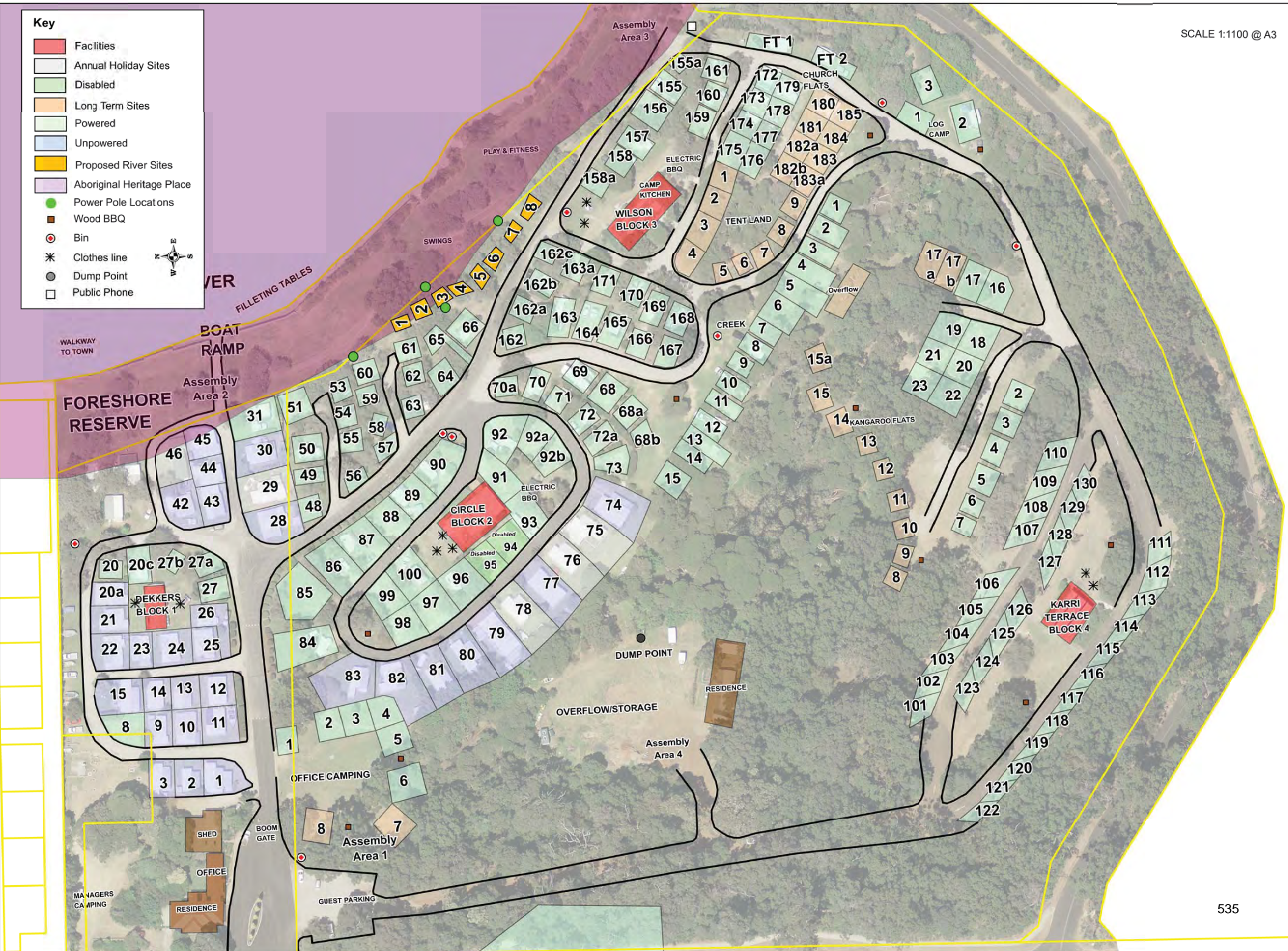


Key

- Facilities
- Annual Holiday Sites
- Disabled
- Long Term Sites
- Powered
- Unpowered
- Proposed River Sites
- Aboriginal Heritage Place
- Power Pole Locatons
- Wood BBQ
- Bin
- Clothes line
- Dump Point
- Public Phone



SCALE 1:1100 @ A3



Arbor Guy (2017) - Trees recommended for trimming or removal

Tree No	Common Name	Genus & species	Height (m)	DBH (mm)	Health	QTRA Risk Index	Recommended Works	Comments	Horz_Prec	X	Y
2	Paperbark	Melaleuca sp	15	1300	Good	4K	Reduce end-weight	twin stems	1.6	6200546.7	330983.015
4	Paperbark	Melaleuca sp	15	700	Good	4K	Reduce end-weight	decay at base	0.5	6200543.6	330985.459
6	Paperbark	Melaleuca sp	9	600	Good	4K	Reduce end-weight	2 stems - 3rd stem previously	1.1	6200538.94	330986.543
8	Paperbark	Melaleuca sp	16	700	Good	4K	Reduce end-weight	None	0.5	6200534.91	330981.6
9	Paperbark	Melaleuca sp	16	1000	Good	4K	Reduce end-weight	None	0.8	6200538.25	330981.441
10	Paperbark	Melaleuca sp	9	800	Good	4K	Reduce end-weight	None	1	6200539.8	330979.069
11	Paperbark	Melaleuca sp	18	1100	Good	4K	Reduce end-weight	previous stem removed	0.6	6200522.56	330987.241
12	Paperbark	Melaleuca sp	18	1200	Good	4K	Reduce end-weight	None	0.6	6200531.95	330991.484
13	Paperbark	Melaleuca sp	4	300	Poor	1K	Remove Tree	almost dead	0.9	6200534.23	330992.729
14	Paperbark	Melaleuca sp	5	700	Fair	400	Remove Tree	decay at base	0.8	6200526.25	330992.322
28	Peppermint	Agonis flexuosa	10	1300	Poor	400	Remove Tree	recent failure 300mm limb,	1	6200492.03	331132.816
31	Peppermint	Agonis flexuosa	3	800	Poor	40K	Remove Tree	almost dead covered with ivy	0.8	6200493.63	331108.831
32	Peppermint	Agonis flexuosa	4	900	Dead	40K	Remove Tree	covered with ivy	0.9	6200492.16	331107.554
36	Peppermint	Agonis flexuosa	9	1100	Fair	4K	Remove Tree	decay at base, consider remove	1.6	6200465.37	331106.504
42	Peppermint	Agonis flexuosa	6	1000	Fair	4K	reduce stem closest road	decay at base	1.5	6200463.94	331116.952
45	Peppermint	Agonis flexuosa	8	900	Fair	40K	Remove Tree	Previously topped, heavy lean ,	0.7	6200539.25	331117.127
46	Peppermint	Agonis flexuosa	7	450	Good	40K	weight reduce	leans over table, decay in base	0.8	6200539.77	331120.765
47	Peppermint	Agonis flexuosa	5	450	Poor	4K	Remove Tree	almost dead	0.8	6200530.19	331119.311
48	Peppermint	Agonis flexuosa	8	1000	Fair	50K	Remove Tree	significant decay in trunk,	0.6	6200530.46	331117.691
49	Peppermint	Agonis flexuosa	9	1000	Fair	40K	Remove Tree	significant decay at base,	0.7	6200546.75	331113.141
50	Peppermint	Agonis flexuosa	6	1200	Fair	4K	Remove Tree	Recent trenching within 1m of base	2.7	6200552.58	331085.75
52	Peppermint	Agonis flexuosa	10	1100	Good	40K	weight reduce, crown clean and	Recent trenching within 3m of base of tree	0.8	6200549.08	331068.586
60	Peppermint	Agonis flexuosa	9	600	Dead	>1M	Remove stump	Tree has decayed at base and fallen	1.3	6200432.33	331162.064
62	Peppermint	Agonis flexuosa	8	600	Fair	4K	Remove Tree	Significant decay at base	2.3	6200418.05	331167.445
68	Peppermint	Agonis flexuosa	9	600	Fair	4K	Reduce end-weight	Exclude camping within fall zone of	1.6	6200406.52	331181.984
69	Peppermint	Agonis flexuosa	9	600	Fair	50K	Reduce end-weight	Previously topped	0.6	6200403.34	331180.473
70	Peppermint	Agonis flexuosa	9	1400	Fair	50K	Reduce end-weight and crown-	Multi stemmed tree. Exclude	0.8	6200404.19	331185.576
71	Peppermint	Agonis flexuosa	9	1400	Fair	4K	Reduce end-weight and crown- clean	Broken limb hanging in crown.	2.3	6200393.76	331198.315
72	Peppermint	Agonis flexuosa	9	800	Fair	50K	Reduce end-weight and crown-	Exclude camping within fall zone of	1	6200386.68	331203.4
73	Peppermint	Agonis flexuosa	8	1200	Fair	40K	Reduce end-weight and crown-	Exclude camping within fall zone of	1.6	6200387.37	331206.431
74	Peppermint	Agonis flexuosa	8	900	Fair	50K	Reduce end-weight	Significant decay at base. 1 stem previously removed at ground level	1	6200356.36	331245.484
78	Peppermint	Agonis flexuosa	9	500	Good	4K	Reduce end-weight	Neighboring tree (#79) has root	0.8	6200346.4	331239.924
79	Peppermint	Agonis flexuosa	9	1000	Good	4K	Remove stem leaning on	None	0.9	6200342.02	331240.874
83	Peppermint	Agonis flexuosa	9	1400	Fair	4K	Reduce end-weight	previously topped	0.6	6200458.92	331105.987
85	Peppermint	Agonis flexuosa	9	1100	Fair	4K	Remove Tree	extensive decay at base	3.1	6200452.77	331118.192
88	Peppermint	Agonis flexuosa	12	700	Fair	4K	Remove Tree	extensive decay at base and trunk	0.8	6200443.89	331124.495
91	Peppermint	Agonis flexuosa	9	1100	Fair	4K	Remove Tree	extensive decay at base	0.5	6200451.81	331142.052
92	Peppermint	Agonis flexuosa	9	1100	Fair	4K	Remove Tree	recent failure, extensive decay at	0.7	6200440.77	331137.072
101	Peppermint	Agonis flexuosa	7	1800	Fair	4K	remove tree or significant height	previously topped extensive decay	1.4	6200427.65	331154.119
107	Peppermint	Agonis flexuosa	15	2500	Good	4K	weight reduce and brace	3 stems	0.7	6200386.75	331176.747
118	Paperbark	Melaleuca sp	15	900	Good	40K	Reduce end-weight	None	0.7	6200358.27	331169.303
122	Peppermint	Agonis flexuosa	10	1100	Good	500K	Reduce end-weight	over extended limb to sth east	0.8	6200355.82	331150.282
129	Peppermint	Agonis flexuosa	15	800	Good	4K	Reduce end-weight	decay at base	0.6	6200361.14	331180.925
131	Paperbark	Melaleuca sp	12	800	Good	100K	Reduce end-weight	None	0.7	6200350.14	331194.769
132	Peppermint	Agonis flexuosa	16	1000	Good	4K	Reduce end-weight	None	0.9	6200347.11	331206.044
134	Peppermint	Agonis flexuosa	17	400	Good	10K	Reduce end-weight	decay at lower trunk	0.6	6200343.59	331212.104
138	Peppermint	Agonis flexuosa	10	900	Good	4K	Reduce end-weight	heavy lean	1.3	6200329.87	331241.675
140	Peppermint	Agonis flexuosa	10	1200	Good	4K	Reduce end-weight	None	1	6200339.4	331234.145
143	Peppermint	Agonis flexuosa	13	1200	Good	400	Remove Tree	significant decay at base, 1 stem	1.2	6200358.2	331222.862
145	Peppermint	Agonis flexuosa	11	1500	Good	40	Remove Tree	creeping failure of codominant	2.3	6200350.09	331222.289
147	Peppermint	Agonis flexuosa	9	900	Good	50K	remove decayed branch over	None	0.6	6200368.67	331214.676
148	Paperbark	Melaleuca sp	9	1600	Good	4K	weight reduce and brace	multiple stems	0.6	6200361.44	331204.076

152	Paperbark	Melaleuca sp	17	900	Good	4K	Reduce end-weight	decay at base, waterlogged soil	0.4	6200336.31	331171.183
153	Paperbark	Melaleuca sp	17	300	Good	4K	Reduce end-weight	None	0.6	6200333.26	331175.295
154	Paperbark	Melaleuca sp	17	900	Good	4K	weight reduce and brace	None	0.5	6200331.72	331177.653
156	Paperbark	Melaleuca sp	17	300	Good	4K	Reduce end-weight	decay at base, monitor lean	0.8	6200336.12	331181.886
161	Paperbark	Melaleuca sp	9	250	Fair	5K	Remove Tree	has heaved into neighboring tree	0.8	6200324.48	331181.018
162	Paperbark	Melaleuca sp	15	900	Good	10K	Reduce end-weight	None	0.5	6200322.72	331181.522
163	Paperbark	Melaleuca sp	14	350	Good	10K	Reduce end-weight	None	0.7	6200317.83	331182.758
165	Paperbark	Melaleuca sp	12	900	Good	4K	Reduce end-weight	codominant stems creeping apart	1	6200313.21	331183.475
166	Paperbark	Melaleuca sp	9	500	Good	100K	Reduce end-weight	None	0.8	6200308.54	331189.584
167	Paperbark	Melaleuca sp	14	900	Good	4K	Reduce end-weight	None	0.4	6200310.95	331191.465
171	Paperbark	Melaleuca sp	7	800	Good	4K	Reduce end-weight	None	0.6	6200316.41	331195.481
174	Paperbark	Melaleuca sp	13	1300	Good	4K	Reduce end-weight	over road	0.9	6200333.93	331201.06
175	Paperbark	Melaleuca sp	12	900	Good	4K	Reduce end-weight	over road	0.4	6200334.77	331194.206
176	Paperbark	Melaleuca sp	15	1100	Good	4K	Reduce end-weight	multiple stems	1	6200336.5	331189.709
178	Paperbark	Melaleuca sp	16	900	Good	10K	Reduce end-weight	None	0.6	6200332.46	331187.883
181	Peppermint	Agonis flexuosa	11	1300	Good	400	remove 2 largest stems	creeping failure	0.5	6200317.46	331209.719
182	Peppermint	Agonis flexuosa	10	1200	Good	4K	Reduce end-weight	None	1	6200324.6	331215.076
187	Paperbark	Melaleuca sp	8	1000	Good	4K	Reduce end-weight	None	0.4	6200282.57	331209.516
189	Paperbark	Melaleuca sp	10	1600	Good	40K	Reduce end-weight	multiple stems	0.6	6200288.8	331199.226
191	Paperbark	Melaleuca sp	10	700	Good	4K	Reduce end-weight	None	0.4	6200285.29	331186.033
193	Paperbark	Melaleuca sp	8	700	Good	4K	Reduce end-weight	None	0.8	6200292.6	331164.817
196	Paperbark	Melaleuca sp	12	1300	Good	4K	Reduce end-weight	multiple stems	0.6	6200310.95	331166.322
197	Paperbark	Melaleuca sp	12	600	Good	50K	Reduce end-weight	None	0.4	6200304.48	331159.15
199	Paperbark	Melaleuca sp	12	800	Good	50K	Reduce end-weight	multiple stems, decay at base	0.5	6200309.86	331148.567
200	Paperbark	Melaleuca sp	12	900	Good	4K	Reduce end-weight	None	0.6	6200309.6	331149.201
205	Paperbark	Melaleuca sp	10	1900	Good	4K	Reduce end-weight	None	0.7	6200321.34	331136.509
206	Paperbark	Melaleuca sp	7	700	Good	400	Remove Tree	fallen into neighboring tree	1.2	6200318.34	331127.428
207	Paperbark	Melaleuca sp	9	1300	Good	10K	Reduce end-weight	None	2.9	6200315.17	331116.48
208	Paperbark	Melaleuca sp	4	600	Good	10K	Reduce end-weight	None	1.2	6200326.13	331116.623
211	Paperbark	Melaleuca sp	10	1600	Good	4K	Reduce end-weight	multiple stems	1.2	6200343.08	331106.407
212	Paperbark	Melaleuca sp	10	500	Good	10K	Reduce end-weight	None	1.2	6200338.61	331102.406
248	Peppermint	Agonis flexuosa	5	700	Good	40K	Reduce end-weight	None	2.7	6200472.04	331046.504
283	Cape Lilac	Melia azedarach	4	500	Dead	4K	Remove Tree	None	0.9	6200437.24	331091.188
289	Karri	Eucalyptus diversicolor	6	1000	Dead	4K	Remove Tree	covered with ivy	1.3	6200431.85	331098.503
291	Paperbark	Melaleuca sp	9	700	Good	4K	Reduce end-weight	None	0.8	6200353.3	331088.777
292	Paperbark	Melaleuca sp	7	700	Good	4K	Reduce end-weight	None	0.5	6200353.23	331083.785
294	Paperbark	Melaleuca sp	8	1000	Good	10K	Reduce end-weight	None	0.7	6200373.08	331069.707
324	Peppermint	Agonis flexuosa	13	900	Good	10K	Reduce end-weight	None	1.1	6200425.08	331058.943
330	Peppermint	Agonis flexuosa	15	1000	Good	500K	Reduce end-weight	None	1.4	6200459.2	331052.234
332	Flame Tree	Erythrina sp	20	400	Good	10K	remove stems leaning towards	cluster of trees	0.8	6200419.76	331030.146
334	Flame Tree	Erythrina sp	12	500	Good	50K	remove leaning stem	None	1.1	6200425.7	331024.403
335	Willow	Salix sp	8	200	Good	50K	Reduce end-weight	None	1.1	6200431.44	331029.889
336	Flame Tree	Erythrina sp	16	300	Good	50K	remove leaning stems	cluster of stems	0.6	6200432.05	331022.456
337	Peppermint	Agonis flexuosa	16	400	Good	10K	Reduce end-weight	\	1.1	6200431.89	331022.312
343	Paperbark	Melaleuca sp	9	1400	Good	4K	Reduce end-weight	multiple stems, crack in leaning	1.1	6200274.76	331209.638
354	Paperbark	Melaleuca sp	16	1000	Good	4K	Reduce end-weight	heavy lean over campsite	1.4	6200268.83	331181.294
355	Paperbark	Melaleuca sp	14	1200	Good	4K	Reduce end-weight	waterlogged soil	1	6200286.51	331164.738
359	Paperbark	Melaleuca sp	15	1100	Good	4K	Reduce end-weight	limb leaning over creek	0.5	6200305.4	331142.483
361	Paperbark	Melaleuca sp	15	800	Good	4K	Reduce end-weight	hangar	0.9	6200311.97	331131.303
380	Paperbark	Melaleuca sp	13	1200	Good	4K	Reduce end-weight	hollow leaning stem	0.9	6200280.05	331134.845
383	Paperbark	Melaleuca sp	16	400	Good	4K	Reduce end-weight	decay at base	1.4	6200306.57	331134.067
399	Marri	Corymbia calophylla	6	1400	Poor	500K	remove live growth and poison	mostly dead stump	0.8	6200220.53	331137.17
403	Marri	Corymbia calophylla	25	900	Good	400	Reduce end-weight and aerial	aerial inspection	0.9	6200255.05	331069.039
408	Karri	Eucalyptus diversicolor	20	300	Good	100K	Reduce end-weight	leaning stem due to competition	1.9	6200261.76	331052.638
417	Paperbark	Melaleuca sp	8	300	Fair	4K	Remove Tree	fallen into neighboring tree	2.1	6200275.15	331061.782

433	Marri	Corymbia calophylla	20	300	Good	50K	remove poorly attached low limb	None	0.9	6200229.66	331105.362
437	Peppermint	Agonis flexuosa	12	800	Poor	4K	Remove Tree	decay at base	0.8	6200249.85	331062.51
444	Marri	Corymbia calophylla	30	1000	Good	4K	Reduce end-weight	exclude camping beneath canopy,	0.6	6200279.79	331020.537
488	Peppermint	Agonis flexuosa	9	500	Good	500K	Reduce end-weight	None	0.9	6200263.35	331247.026
511	Marri	Corymbia calophylla	22	500	Good	50K	side trim	decay in upper stem	1.6	6200185.82	331050.722
528	Karri	Eucalyptus diversicolor	20	500	Good	40K	remove low side limb with decay	None	2.5	6200248.58	330980.973
551	Marri	Corymbia calophylla	18	600	Good	>1M	remove ivy	None	1.4	6200252.42	330999.418
552	Karri	Eucalyptus diversicolor	9	350	Dead	1K	Remove Tree	None	2.7	6200253.32	331003.699
553	Karri	Eucalyptus diversicolor	16	600	Fair	>1M	remove ivy	None	0.8	6200247.99	331007.247
554	Marri	Corymbia calophylla	19	600	Good	>1M	remove ivy	None	5.3	6200241.11	331005.905
556	Karri	Eucalyptus diversicolor	26	800	Good	500K	remove ivy	previously topped	3.3	6200233.64	331013.6
557	Karri	Eucalyptus diversicolor	28	1100	Good	50K	remove ivy and aerial inspection	previously topped	3	6200238.86	331022.71
558	Marri	Corymbia calophylla	16	400	Poor	50K	remove ivy and aerial inspection	None	1.9	6200232.67	331023.745
559	Marri	Corymbia calophylla	19	1000	Good	50K	reduce height	previously topped	3.6	6200193.57	331069.335
560	Karri	Eucalyptus diversicolor	22	1000	Good	10K	reduce height	previously topped	1.6	6200197.7	331078.304
563	Black Butt	Eucalyptus patens	20	350	Good	40K	Reduce end-weight	heavy lean over road	1	6200312.19	330979.94
567	Black Butt	Eucalyptus patens	28	1100	Poor	4K	remove crown to safe height	None	1.2	6200361.4	330966.878
568	Black Butt	Eucalyptus patens	18	350	Good	10K	Reduce end-weight	previous failure 300mm limb	0.6	6200408.15	330960.667
578	Marri	Corymbia calophylla	26	900	Poor	4K	remove limbs over road	None	0.7	6200387.16	330974.282
579	Marri	Corymbia calophylla	18	450	Dead	4K	Remove Tree	None	1.3	6200380.24	330979.045
581	Black Butt	Eucalyptus patens	30	1200	Dead	4K	remove limbs over road	None	1.1	6200377.43	330978.533
585	Black Butt	Eucalyptus patens	30	1200	Fair	4K	remove limbs over road	significant defects but leaning	1.7	6200342.57	330991.934
599	Black Butt	Eucalyptus patens	25	650	Fair	40K	Reduce end-weight	limbs over road	1.1	6200326.21	330989.653
604	Black Butt	Eucalyptus patens	26	1800	Fair	400	shorten stem towards road	fractured lower trunk	1.1	6200324.89	330994.079
614	Marri	Corymbia calophylla	16	600	Good	50K	reduce height	previously topped	0.9	6200467.88	330976.122
621	Karri	Eucalyptus diversicolor	20	400	Good	100K	shorten low lateral limb	None	2	6200458.85	330975.31
631	Karri	Eucalyptus diversicolor	22	600	Good	4K	reduce height	previously topped	0.6	6200446.51	330996.699

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TURNER CARAVAN PARK

REVEGETATION CONCEPT PLAN

BACKGROUND

NSA PL is providing broad weed control and revegetation advice to assist with the development of a Master Plan for the Turner Caravan Park, on behalf of the Shire of Augusta-Margaret River.

WEED GROUPS

Successful integrated weed management can be achieved by applying three main principles:

- Containing the spread of serious weeds and protecting intact bushland.
- Preventing new weed species establishing from small populations by removing them first before they spread.
- Consider the restoration of degraded edges, although in areas of high human impact, this may be a lower priority than protecting good areas. At Turner Caravan Park, the degraded edges harbour serious weeds that provide a source of new weeds that continually disperse into good areas.

The predominant weeds identified during site survey have been grouped according to growth form, as there are similarities in the control methodology and timing. Not every plant has been identified to a specific species as there was insufficient flowering material or they are ornamental plants that may have been added by long term visitors to the Park. Some plants require assessment at flowering to determine if they are exotic or native plants. Further, widespread weeds such as the Perennial grasses were predominantly mapped on their outside margins and isolated populations.

Details for their control are provided in Appendix 1.

MANAGEMENT ACTIONS

The site has been divided into five management zones with suggestions for each area.

Map 1: Management priorities

Ornamental shrubs are spreading into the adjoining remnant vegetation. These need to be removed systematically as budgets allow. The exotic shrubs furthest into the remnant vegetation should be cut and removed entirely and replaced with Sword sedge. Those on the roadside should be removed and selective weed control undertaken to encourage natural regeneration. Isolated single examples of flowering plants such as Geranium and the group of glossy leaved ornamental shrubs within the wetland should be removed and replaced with low native shrubs.

Ornamental and productive trees such as Figs are well established and may have been encouraged by long term residents or regular visitors to the Caravan Park. Whether to replace these should be discussed, but could occur during fuel load reduction or when they die naturally. All juvenile exotic trees and shrubs should be removed when small.

Ongoing spot spraying using grass specific herbicide should occur as the water level recedes in November/December, and again in April. The margins of the wetland should also be sprayed at least twice a year. Fusillade Forte (TM) is highly effective at label rates.

Sole representatives of exotic plants should be removed to ensure they don't spread.

Selective broadleaf spray (Metsulfuron-methyl) should be applied to annual weeds in the wetland floor in January and again in April, and hand weeding carried out where possible.

SPECIES FOR REVEGETATION

Wetland margins (140 lineal metres):

Lepidosperma effusum, *Juncus kraussii* – closest to high water mark

Centella asiatica, *Lobelia alata* and *Isolepis setiformis* – leading out to turf areas

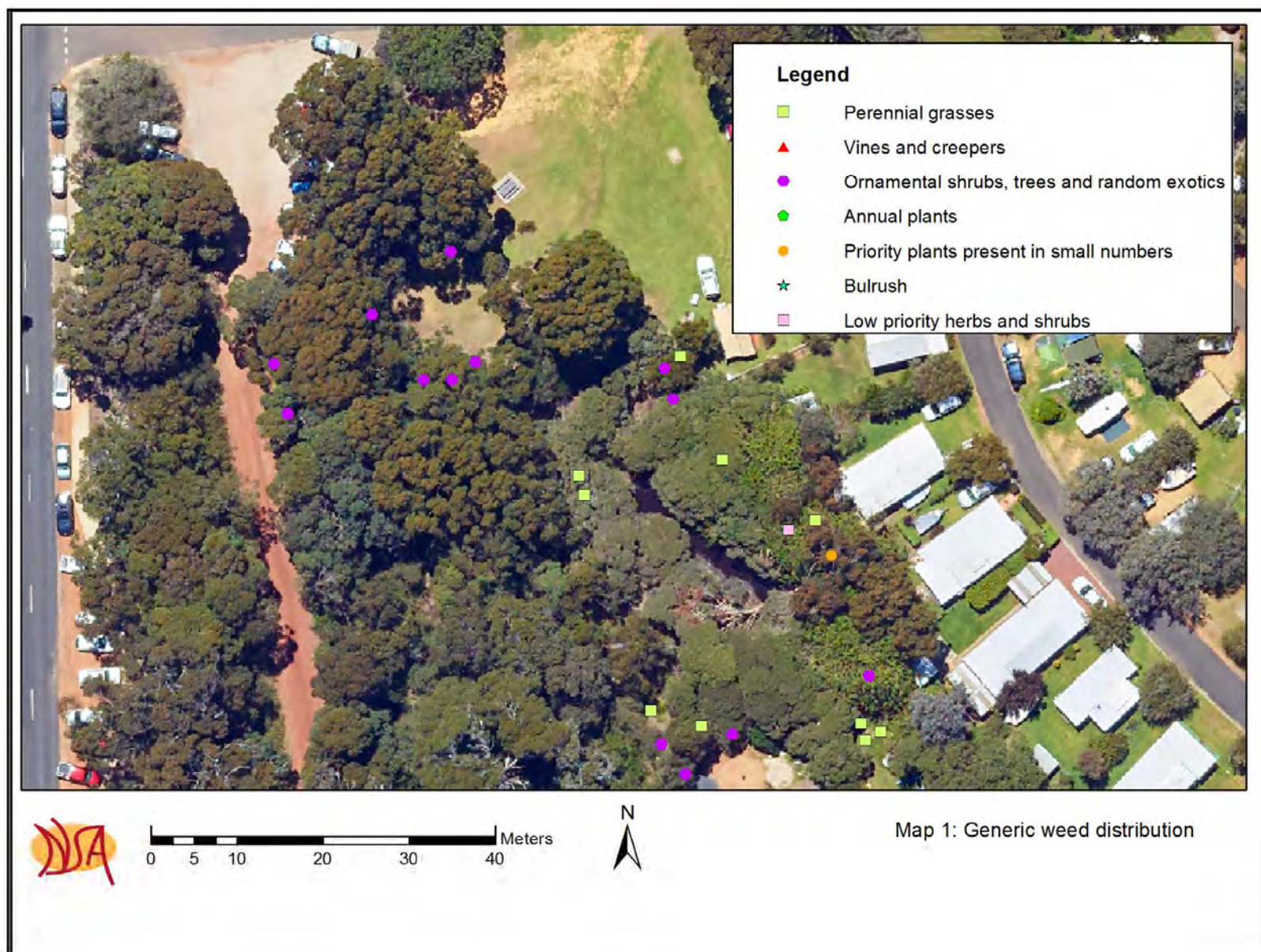
The width of planting will need to be negotiated with the Caravan Park management, however it is suggested that revegetation should include at least a 2 m wide planted strip using the low species. This will enable selective grass spraying to occur to provide a management line.

Basin floor (250 sq m):

Juncus kraussii, *Baumea juncea*, *Juncus pauciflorus*

Care needs to be taken to identify the micro-contours that will limit the distribution of each species based on the duration of inundation.

Eradication of the Butterfly bush (*Polygala myrtifolia*) must occur from the remnant vegetation beyond the boundary of this study, prior to any native plants going in. Selective removal of this weed may result in localised impacts on natural regeneration processes. This impact should be monitored and if insufficient natural regeneration occurs then supplementary planting will be beneficial.



Map 2: Management recommendations

Highly invasive weeds such as the Morning glory and Typha are priorities while their populations are relatively small. All juvenile exotic trees (figs etc), ornamental shrubs and sole representatives of exotic plants should be removed when small to ensure they don't spread.

Grasses dominate the understorey in this zone and should be treated with grass specific herbicide in November/December, and again in April. Spot spraying of any missed plants could occur in a final treatment in May. Fusillade Forte (TM) is highly effective at label rates.

The mature ornamental and productive plants such as Figs are well established and may have been encouraged by long term residents or visitors to the Caravan Park. A conversation about how and when to replace these with native species is required; removal could occur during fuel load reduction activities or when they die naturally.

Native plants used for replacement should be relatively low on the upper margins and larger plants such as *Lepidosperma effusum* used lower down the slopes. Dense plantings in clusters should meet bushfire load restrictions.

Broadleaf native plants are best planted where broadleaf exotic plants persist to enable selective control in the future. Rushes and sedges are best planted where grasses and broadleaf weeds dominate. Restoration of the shrub layer is best delayed until effective control of the vines and twiners is achieved.

SPECIES FOR REVEGETATION

Creekline margins (420 sq m):

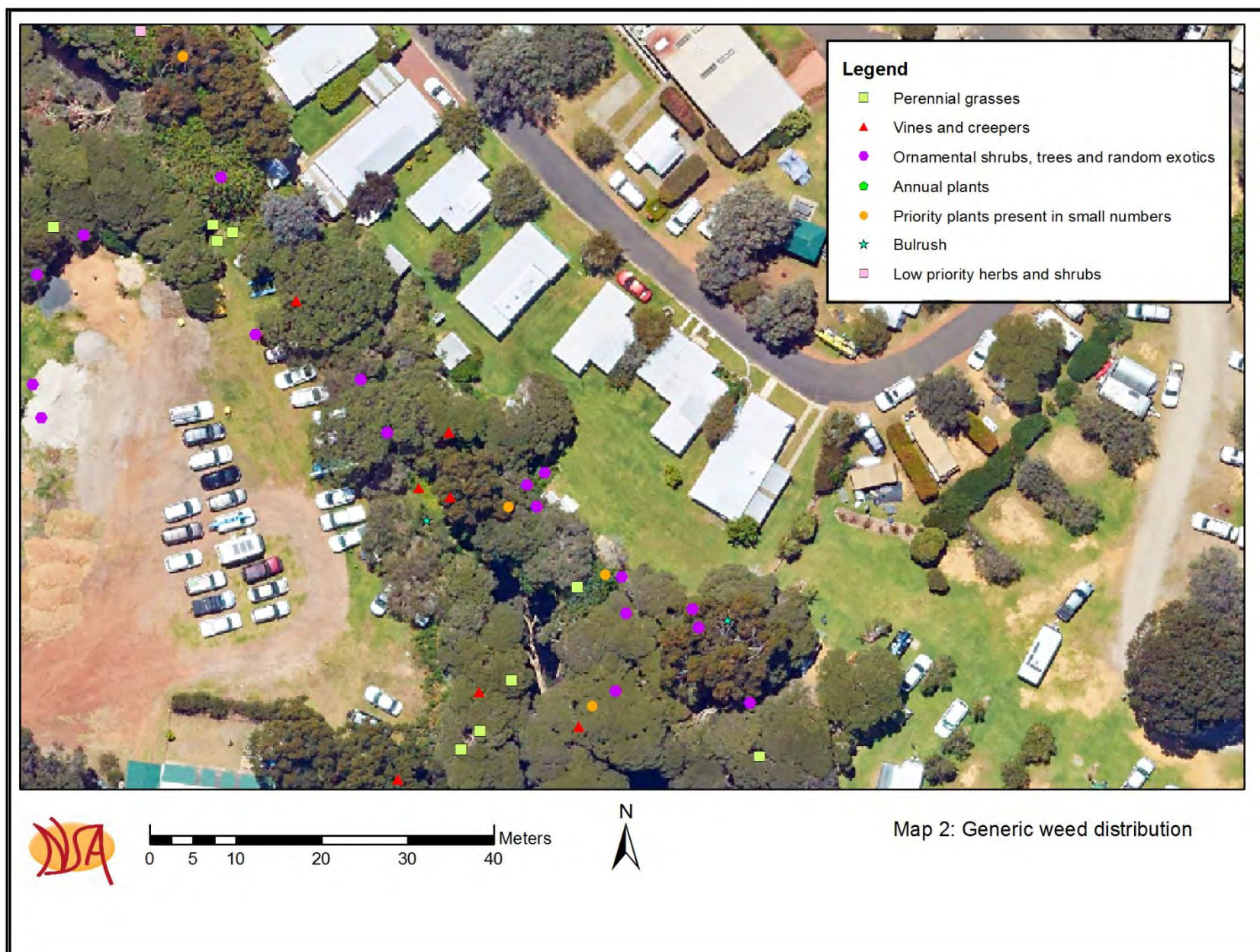
The larger sedges should be planted at least 1 m above high water mark, so the weeping foliage helps to slow the water flow without impeding the drainage functions.

Centella asiatica, *Lepidosperma effusum*, *Juncus kraussii*, *Lobelia alata* and *Isolepis setiformis*, *Carex appressa*, *Gahnia trifida*

Creek floor (140 sq m):

Juncus kraussii, *Baumea juncea*, *Juncus pauciflorus* and nodes of planting will be best to ensure adequate water flow.

Seasonal annuals like Marsh club rush (*Bolboschoenus caldwellii*) would provide cover as the waterway dries out.



Map 3: Management recommendations

Highly invasive weeds such as the Morning glory, Dolichos pea and Bridal creeper are the priority in this zone on the western side of the wetland, while replacing the grasses with native plants would be of benefit on the eastern margin.

There are isolated Arum lily in the small garden beds along the narrow creekline that should be treated to ensure no further spread.

Regularly treating the perennial grasses and implementing a revegetation process is another priority.

Continuing to control the Bulrush will help to reduce the fuel load issues in the wetland. The bulk of the biomass would best be cut and removed from the wetland to reduce algal growth. Re-sprouting leaves can then be wiped with herbicide. Removing of the seed heads will reduce the new populations establishing. Seed heads should be bagged and stored in the sun to kill the seed or buried to prevent spreading any seed on disposal.

SPECIES FOR REVEGETATION

Once Bulrush re-sprouts occur across less than 5% of the total area, replacement with native, low emergent species such as *Eleocharis acuta*, Bare Twig rush (*Baumea juncea*) or Loose-flowered rush (*Juncus pauciflorus*) is appropriate. Care needs to be taken to plant in zones where the water depth will not 250 mm. The wetland floor could be seeded with *Bolboschoenus caldwellii* that would emerge as the water level recedes. Providing continuous native vegetation will provide habitat and may also discourage kids from climbing and accessing the entire wetland.

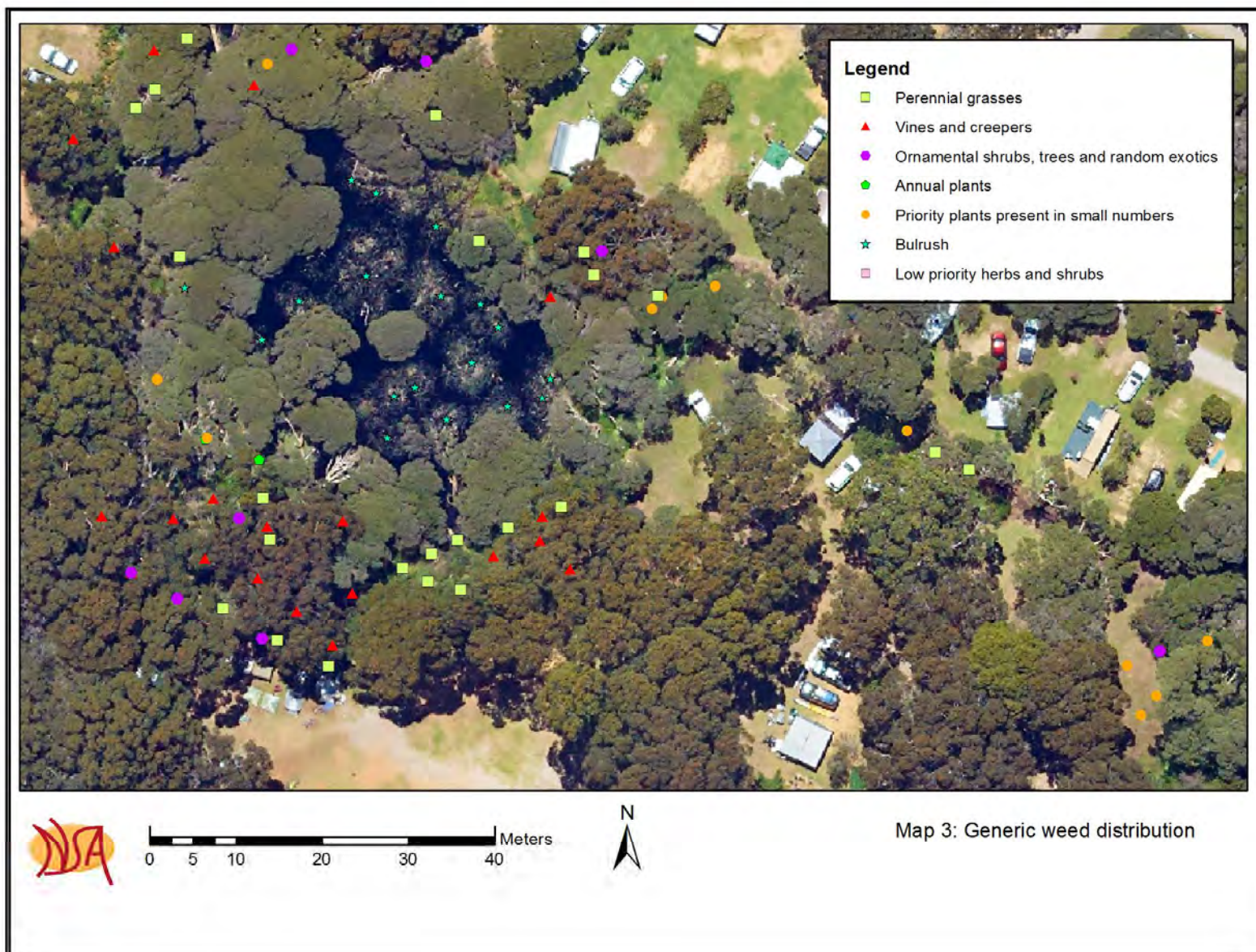
Most work should focus on the large wetland and the remnant vegetation on the southern and western sides. Should resources become available, then stream-lining the waterway to provide a corridor linkage would be ideal.

Other considerations

There is considerable dumping of green waste, in particular lawn clippings and some other debris into the wetland edges. It would be beneficial to establish a contained green waste storage zone to start working towards composting this material.

Options for disposal of general waste and the waste disposal bin could be considered in the current Shire review of waste management practices within the entire municipality.

Simple rope fences could be installed using pine bollards set at 0.70 m height to define the management boundary between the native vegetation and camping areas around the wetland margins. Woody mulch would help define the management boundary and could extend one metre (1 m) downslope towards the wetland from the fence. Keeping the mulch behind the fence would reduce interference with mowing activities and provide a buffer through which grasses can be sprayed before entering the revegetation areas.



Map 4: Management recommendations

Perennial grasses occur sporadically through this area and can be readily managed with selective spraying. A number of Brazilian pepper plants are present and should be eradicated to prevent further spread. They are present in small numbers and would be relatively easy to remove while the population is limited.

Continuing to control the Bulrush will help to reduce the fuel load issues in the wetland. The bulk of the biomass would best be cut and removed from the wetland to reduce algal growth. Cutting and painting the Bulrush within the wetland is feasible.

There are Agapanthus and other plants that have been 'planted' on the margins of the wetland. These should be removed, replanted close to buildings or other infrastructure and natural regeneration encouraged.

Bridal creeper rust should be spread as a priority and/or cutting and painting with herbicides.

The bare lagoon area has considerable infestations of annual weeds, in particular Bushy starwort and Fleabane. Fat hen and other *Chenopodium* occur in this node and provide some competition for the annual weeds. Planting the floor with Bare twig rush in dense clusters would reduce the annual infestations over time.

The Figs which currently bound Turner Road could have half of the biomass reduced along the creekline while leaving the main trunk intact to continue to provide screening. Planting Freshwater paperbarks along the waterway and managing the weed load in the understorey could provide a screen prior to removing the Figs entirely.

There is a large strap-leaf plant that requires identification when flowering to determine if it is Pampas or the native *Gahnia decomposita*. If it is identified as Pampas then its removal should be prioritised.

SPECIES FOR REVEGETATION

Assisted natural regeneration will be sufficient for the majority of this site. The bare lagoon area and creek floor could be planted with Bare twig rush and the margins planted with *Juncus kraussii*, *Juncus pauciflorus* and *Centella asiatica*.

A total area of about 300 sq metres will reduce weed management requirements, improve habitat and reduce odour associated with bare, wetland soils.



Map 5 Management recommendations

There are limited numbers of exotic plants within this zone. Small numbers of exotic/ornamental plants are present and should be removed. Hand weeding is sufficient for most.

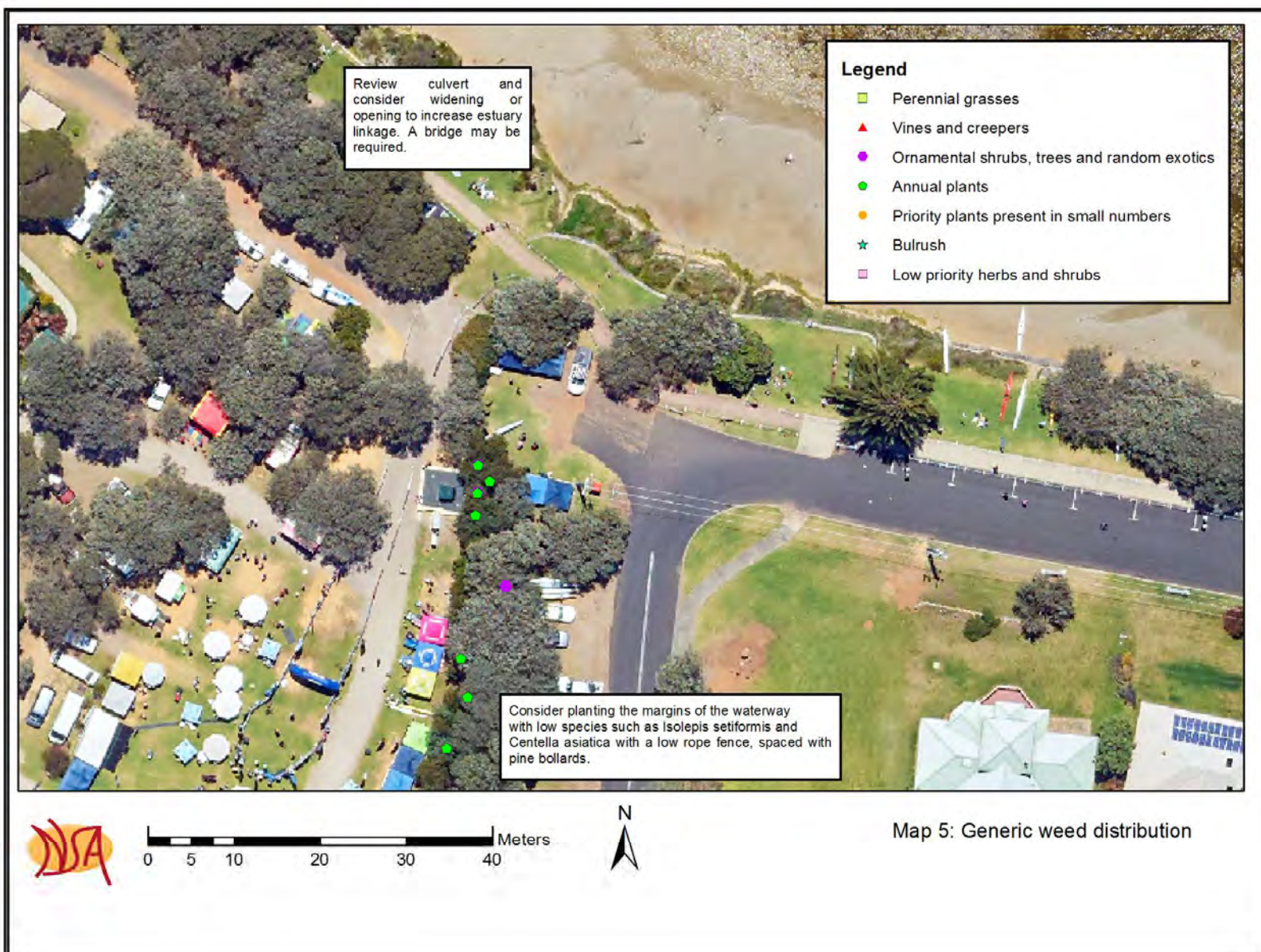
SPECIES FOR REVEGETATION

Continuing the weed control to encourage natural regeneration of *Centella* and reinforcing with Shore rush (*Juncus kraussii*), Knotted club rush (*Ficinia nodosa*) and/or Bare twig rush (*Baumea juncea*) and additional Spreading sword sedge (*Lepidosperma effusum*) at the top or middle portion of the bank would provide improved screening to Turner Road. Coast saw sedge (*Gahnia trifida*) would also be appropriate closer to the estuary, particularly if the interconnection between the waterway and estuary is restored.

Any planting on the Caravan Park side of the waterway should be limited to low species such as *Centella* and *Isolepis setiformis*.

Other comments

It may be worth reviewing the culvert and interface of the waterway with the estuary should funding become available.



Map 6 Revegetation zones

Revegetation is best focused in areas dominated with perennial grasses, while supported natural regeneration processes are likely to be sufficient in the adjoining remnant vegetation.

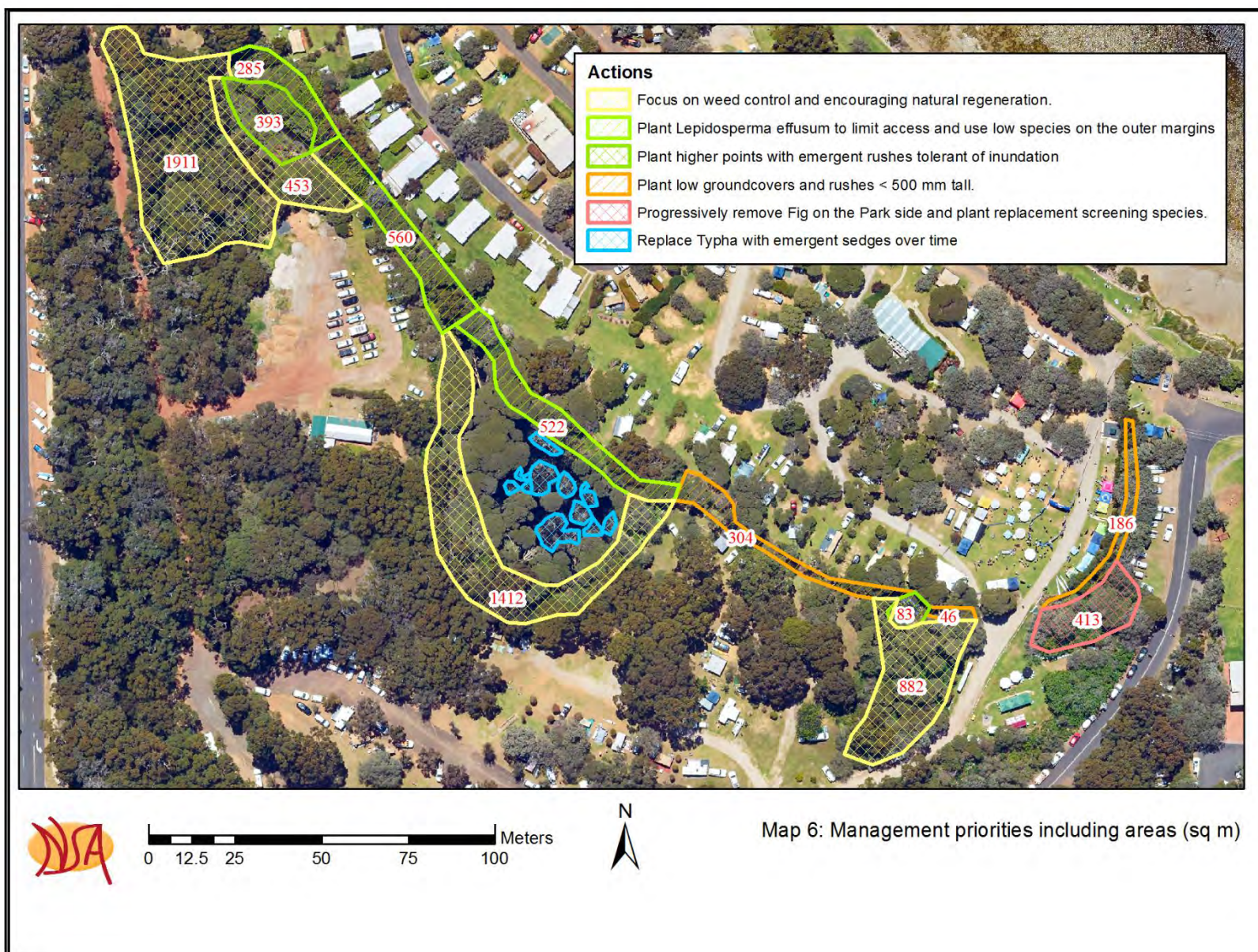
The following principles should provide guidance:

1. Species lower than 400 mm be used in proximity to camping areas with a mulch line extending at least 1 m beyond the planted area. This buffer can provide for a spray line.
2. Light rope fencing be used to define the management boundary set at 700 mm high using white or reflective rope so it is visible to people moving around at night.
3. Taller rushes and sedges be planted in dense groups where weed control is effective and each node be joined together as weed control is achieved.
4. Gradual replacement of exotic trees with locally indigenous trees over time.

Possible species to use in revegetation are listed below (Table 1).

Table 1: Suggested revegetation species for Turner Caravan Park

Genus	Species	Common name	Planting density
<i>Baumea</i>	<i>junceae</i>	Bare twig rush	4 per sq m
<i>Centella</i>	<i>asiatica</i>	Common centella	4 per sq m
<i>Eleocharis</i>	<i>acuta</i>		2 per sq m
<i>Ficinia</i>	<i>nodosa</i>	Knotted club rush	1 per sq m
<i>Gahnia</i>	<i>trifida</i>	Coast saw sedge	1 per 2 sq m
<i>Isolepis</i>	<i>setiformis</i>		4 per sq m
<i>Juncus</i>	<i>pallidus</i>	Pale rush	1 per sq m
<i>Juncus</i>	<i>pauciflorus</i>	Loose-flowered rush	1 per sq m
<i>Juncus</i>	<i>kraussii</i>	Shore rush	1 per sq m
<i>Lepidosperma</i>	<i>effusum</i>	Spreading sword sedge	1 per 5 sq m
<i>Lepidosperma</i>	<i>tetraquetrum</i>	Angled sword sedge	1 per 5 sq m
<i>Lepidosperma</i>	<i>longitudinale</i>	Pithy sword sedge	1 per 2 sq m
<i>Melaleuca</i>	<i>lateritia</i>	Robin redbreast bush	1 per 2 sq m
<i>Melaleuca</i>	<i>rhaphiophylla</i>	Freshwater paperbark	1 per 5 sq m
<i>Muehlenbeckia</i>	<i>adpressa</i>		1 per 2 sq m
<i>Rhagodia</i>	<i>baccata</i>		1 per 2 sq m



GENERAL RECOMMENDATIONS

Protecting revegetation efforts will be difficult given the land use, but it is essential if this project is to be successful. Low rope fences between pine bollards set at 700 mm tall could be used to discourage access, with simple signage about habitat creation. This approach is suggested to reduce the likelihood of interfering with the tree roots that may impact on plant health.

Low formal crossing points should be installed (Map 7) and could be constructed out of old power poles with timber steps. The poles can have drilled ends with re-bar driven through for anchoring. Revegetation could then occur either side.

Lawn clippings

Ongoing dumping of lawn clippings will increase the level of nutrients in the wetlands, which will increase weeds and algae – together this can result in an increase in nuisance insects. Dumping clippings on the wetland margins should be avoided. Lawn clippings are useful when mixed with dry shredded wood material as mulch, however this needs to be stockpiled for several months before spreading.

Mosquito nuisance

Freshwater mosquito species are the most common species captured in the Turner Caravan Park. Minimising use of misting sprays and the creation of dense, humidity trapping gardens may help to reduce the mosquito nuisance by reducing habitat available during the day.

Site: Turner Caravan Park				
Date	22/12/2017	TOTAL	Percentage %	Preferred habitat
Species				
<i>Aedes alboannulatus</i>	8	8	12	Freshwater backyard containers
<i>Aedes camptorhynchus</i>	6	6	9	Saltwater/estuarine origin
<i>Aedes notoscriptus</i>	52	52	78	Clean water within domestic environments such as artificial containers; gutters, ponds, bird baths pot plant drop trays
<i>Culex australicus</i>	1	1	1	Freshwater wetlands
TOTAL	67	67	100	

The revegetation species selected are those that will provide for ground cover being well separated from the canopy, reducing the likelihood of trapping warm, moist air in the revegetation zones. Maintaining the through-flow of air can help discourage mosquitoes from congregating.

Modifying any existing garden reticulation that supplies the water in a mist would be of benefit. Also ensuring containers that may hold freshwater are minimised throughout the site may assist in reducing mosquito nuisance.

Adventure playground

To reduce access to the revegetation areas and the wetland in particular, it may be beneficial to use any fallen timber to create a kids play area with stepping stones and logs to climb on. The Master Plan could identify areas where this is feasible.

APPENDIX 1: Weeds present and their suggested control

WEEDS AT TURNER ROAD CARAVAN PARK

<i>Agapanthus</i>		Agapanthus
<i>Agave</i>		
<i>Anagallis</i>	<i>var arvensis arvensis</i>	Pimpernel
<i>Asparagus</i>	<i>asparagoides</i>	Bridal creeper
<i>Chenopodium</i>	<i>murale</i>	Nettle-leaved goosefoot
<i>Chenopodium</i>	<i>album</i>	Fat hen
<i>Cirsium</i>	<i>vulgare</i>	Spear thistle
<i>Colocasia</i>	<i>esculenta</i>	Taro
<i>Conyza</i>	<i>spp.</i>	Fleabane
<i>Cynodon</i>	<i>dactylon</i>	Couch
<i>Dipogon</i>	<i>lignosus</i>	Dolichos pea
<i>Ficus</i>	<i>carica</i>	Edible fig
<i>Helichrysum</i>	<i>luteoalbum</i>	Jersey cudweed
<i>Holcus</i>	<i>lanatus</i>	Yorkshire fog
<i>Ipomoea</i>	<i>carica</i>	Morning glory
<i>Juncus</i>	<i>microcephalus</i>	
<i>Mentha</i>	<i>pulegium</i>	Mint
<i>Oxalis</i>	<i>purpurea</i>	Large flowered wood sorrel
<i>Pennisetum</i>	<i>clandestinum</i>	Kikuyu
<i>Plantago</i>		Plantain
<i>Polygala</i>	<i>myrtifolia</i>	Butterfly bush
<i>Rumex</i>	<i>spp.</i>	Dock
<i>Schinus</i>	<i>terebinthifolius</i>	Brazilian pepper
<i>Solanum</i>	<i>nigrum</i>	Blackberry nightshade
<i>Sonchus</i>	<i>asper</i>	Sowthistle
<i>Sonchus</i>	<i>oleraceus</i>	Sowthistle
<i>Stenotaphrum</i>	<i>secundatum</i>	Buffalo grass
<i>Symphyotrichum</i>	<i>subulatum</i>	Bushy starwort
<i>Tropaeolum</i>	<i>majus</i>	Nasturtium
<i>Typha</i>	<i>orientalis</i>	Typha
<i>Watsonia</i>	<i>sp</i>	Watsonia
<i>Zantedeschia</i>	<i>aethopica</i>	Arum lily

Group 1: Perennial grasses		
Common name	Scientific name	Control methodology
Couch	<i>Cynodon dactylon</i>	Spray with 8 mL / L Fusillade Forte [®] + Pulse [®] 2 mL/L.
Kikuyu	<i>Pennisetum clandestinum</i>	Spray with 10 mL / L Fusillade Forte [®] + Pulse [®] 2 mL/L.
Buffalo	<i>Stenotaphrum secundatum</i>	Spray with 8 mL / L Fusillade Forte [®] + Pulse [®] 2 mL/L.
<ul style="list-style-type: none"> All perennial grasses are best treated as the water level recedes in late Spring or early summer. Follow-up treatments should occur in late Summer and early Autumn, if required. Using grass specific herbicides minimises damage to non-target native plants. Care needs to be taken to avoid the native Weeping grass (<i>Microlaena stipoides</i>) that occurs around the Turner Caravan Park. 		
Group 2: Vines, twiners and climbers		
Common name	Scientific name	Control methodology
Bridal creeper	<i>Asparagus asparagoides</i>	Spread the rust from other populations annually. Spot spray when flowering with 1% glyphosate and 0.4g/10L + Pulse [®] .
Dolichos pea	<i>Dipogon lignosus</i>	Spray 10 mL of Grazon [®] + 25 mL Pulse [®] in 10 L of water and spraying until run off in August provides reasonably selective control in bushland. In small areas the stems can be cut just above ground level and then painted with undiluted glyphosate. This provides good control of the parent plants and rhizomes but follow up treatments for a number of years is required to control the seedlings. The cut stems may be sprayed with a 1% glyphosate mixture to control regrowth from stems and any seedlings.
Morning glory	<i>Ipomoea carica</i>	Foliar spray when it is growing over the ground or up to 1 m into small trees and shrubs with Kamba M [®] , at 3½ ml of herbicide per 1 litre of clean water.

Common name	Scientific name	Control methodology
Nasturtium	<i>Tropaeolum majus</i>	Hand weed small populations and dispose of carefully. Apply 20 mL glyphosate (450g/L) + 25 mL wetting agent in 10 L water. Apply any time the plants are actively growing. Seedlings can be controlled with half of these rates. Repeat as necessary.
<ul style="list-style-type: none"> <i>It is often best to spray or wipe the foliage within reach. After four weeks or so, cut all climbing plants at about 1.5 m above ground and then treat the new leaves as they occur. The most effective chemicals for control of these weeds are extremely slow in acting and showing visible signs of efficacy.</i> 		
Group 3: Ornamental shrubs, trees and groundcovers		
<i>This group has a number of representatives that may have sentimental value for visitors to the Park. Some are not particularly aggressive colonisers, however, ultimately, management should aim to separate native vegetation from exotic vegetation and clearly define "garden beds".</i>		
Common name	Scientific name	Control methodology
Agapanthus	<i>Agapanthus praecox</i>	Cultivation, mowing and grazing provide control. Manually remove tops and root system and burn or bury more than 1 m deep. Alternatively, wipe leaves with Tordon® or Vigilant® Gel herbicide.
Easter lily	<i>Amaryllis belladonna</i>	Spot spray 1% glyphosate + Pulse® after flowering and as new leaves emerge.
Figs	<i>Ficus carica</i>	Juvenile plants can be hand pulled. Cut all trunks 200-500 mm above ground level then apply triclopyr to the stumps immediately and then annually if regrowth appears. Smaller trees with trunks up to 100 mm diameter can be controlled by applying a 250 mm band of triclopyr to the bark near the base of the tree. Trees re-sprout vigorously after cutting them down and these sprouts need to be removed every 4-6 weeks to eventually exhaust the root reserves.

Common name	Scientific name	Control methodology
Butterfly bush	<i>Polygala myrtifolia</i>	Seedlings and small plants can be removed manually. Larger plants can be cut off close to ground level or mown and usually don't regrow. Burn or deeply bury material that has ripe fruit or seed. Four seasons of control necessary. Spray 100 mL glyphosate (450g/L) in 10 L water applied as an overall spray provides control.
Brazilian pepper	<i>Schinus terebinthifolius</i>	Remove majority of the plant and paint or wipe with glyphosate
Flax		Sole plants at east end of the creekline should be dug out and transplanted into a confined garden near ablution or kitchen blocks.
Geranium	<i>Pelargonium x domesticum</i>	Sole plants at north end of the creekline should be dug out and transplanted into a confined garden near ablution or kitchen blocks.
Glossy leaved shrub (unidentified)	This plant has been used as a screening shrub throughout the Park and a small number have germinated in the wetland buffer zone. These should be removed and replaced with <i>Lepidosperma effusum</i> .	
	<i>Melaleuca nesophila/Leptospermum laevigatum</i>	Hand pull juvenile plants. Only a small number are present. No fruits present so final identification could not be completed.
Pampas? or <i>Gahnia decomposita</i> – review on flowering to determine if native or exotic.		

Common name	Scientific name	Control
Taro?	<i>Colocasia esculenta</i>	Physically dig out. Alternatively, cut plant to base and paint with a 50% glyphosate solution. Any re-sprouting leaves should be re-treated when small with 2 % glyphosate solution + metsulfuron-methyl (0.05 g/L + Pulse® 2 mL/L).
Numerous exotic trees	Discuss the gradual replacement of exotic trees with locally indigenous plants. Replacement stock can be planted a couple of years in advance of removal so the net loss of shade is not significant. All juvenile non-native trees should be removed as soon as budget allows.	
Watsonia		Hand remove early in the season or spot spray metsulfuron methyl 0.1 g/15 L + Pulse®. Chlorsulfuron 0.3 g/10L + Pulse® is also effective. Both should be applied just on flowering.
Group 4: Annuals		
Nettle-leaved goosefoot	<i>Chenopodium murale</i>	Spray with 1% glyphosate mixed with 0.1 gm metsulfuron-methyl and surfactant.
Fleabane	<i>Conyza spp.</i>	Hand pull when small. Spot spray 1% glyphosate + Pulse® or 10 mL Lontrel in 10L of water + 25 mL Pulse®.
Spear thistle	<i>Cirsium vulgare</i>	Grub out when small. Only small populations present.
Yorkshire fog	<i>Holcus lanatus</i>	Spot spray with Fusillade Forte® or 2% glyphosate. Hand remove small populations.
Jersey cudweed	<i>Helichyrsom luteoalbum</i>	Hand pull when flowering. Only small populations are present.
Large flowered wood sorrel	<i>Oxalis purpurea</i>	Spot spray with 1% glyphosate mixed with 0.2g/15L metsulfuron-methyl + Pulse®.
Dock	<i>Rumex conglomeratus</i>	Hand pull when small or spray with 1% glyphosate mixed with 0.1g/15L metsulfuron-methyl + Pulse®.

Common name	Scientific name	Control methodology
Plantago	<i>Plantago lanceolata</i>	Spot spray with 1% glyphosate mixed with 0.1 gm metsulfuron-methyl and surfactant.
Sowthistle	<i>Sonchus asper</i> and <i>S. oleraceus</i>	Hand pull when small or spray with 1% glyphosate mixed with 0.1 gm metsulfuron-methyl and surfactant.
Blackberry nightshade	<i>Solanum nigrum</i>	Hand pull when small or spray with 1% glyphosate mixed with 0.1 gm metsulfuron-methyl and surfactant.
Bushy starwort	<i>Symphyotrichum subulatum</i>	Hand pull prior to seeding. Spray with 1% glyphosate before flowering.

Group 5: Priority plants present in small numbers including Declared, Weed of National Significance (WoNS) or plants for further identification		
Common name	Scientific name	Control methodology
Pennyroyal	<i>Mentha pulegium</i>	In bushland areas spray each year with 10 g Chlorsulfuron plus 250 mL Pulse® per 100 L water when the plants are actively growing in summer before flowering.
Arum lily (Declared Plant)	<i>Zantedeschia aethiopica</i>	Spray carefully on leaves with Metsulfuron-methyl or Chlorsulfuron 0.4g/15L + Pulse® applied when first spotted and/or flowering. Leaves were present in April and will need follow-up until September/October.
Bridal creeper (WoNS)	<i>Asparagus asparagoides</i>	Continue to spread the rust by finding affected plants and rubbing the leaves over each other.

Group 6: Rushes and sedges		
Common name	Scientific name	Control methodology
	<i>Cyperus spp.</i>	Hand remove small/isolated infestations ensuring removal of all rhizomes. Otherwise try 1% glyphosate + Pulse® repeatedly.
	<i>Juncus microcephalus</i>	2% glyphosate solution with surfactant is effective.
Bulrush	<i>Typha orientalis</i>	Cutting the stems 150 mm below the water level at flowering (in early summer) results in decay of many of the rhizomes. 50% solution wiped on leaves with sponge when small infestations. For hand sprays use 100 mL glyphosate (360g/L).
Group 7: Low priority herbs and low shrubs		
Common name	Scientific name	Control methodology
Large flowered wood sorrel	<i>Anagallis var arvensis arvensis</i>	1% glyphosate with Pulse® with 0.1 g/10L is effective.
Fat hen	<i>Chenopodium album</i>	Spray with 1% glyphosate mixed with 0.1 gm metsulfuron-methyl and surfactant.



intelligent outcomes | respected experience

Bushfire Management Plan

Turner Caravan Park: Concept Master Plan

DRAFT

Prepared for
Shire of Augusta-Margaret River
by Strategen

November 2018



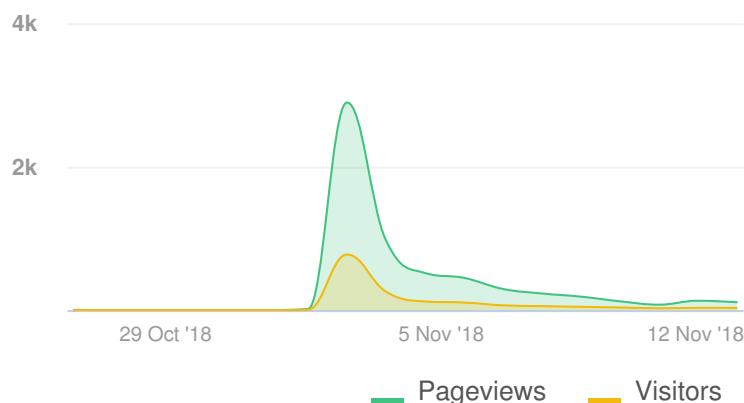
Project Report

14 October 2018 - 12 November 2018

Your Say Augusta Margaret River Turner Caravan Park



Visitors Summary

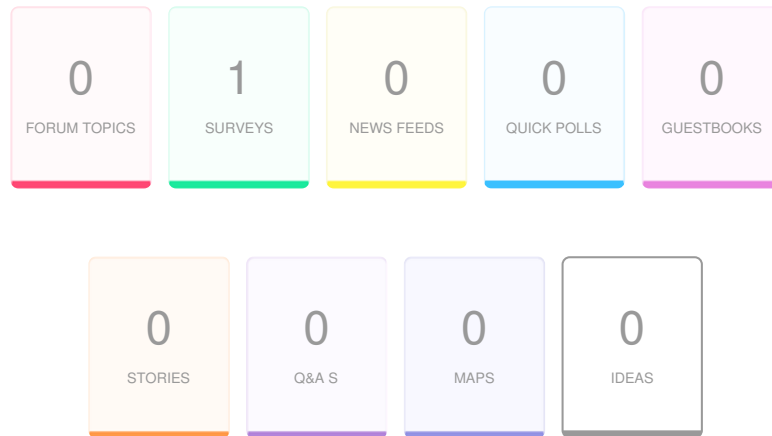


Highlights

TOTAL VISITS	MAX VISITORS PER DAY	
1.7 k	775	
NEW REGISTRATIONS		
87		
ENGAGED VISITORS	INFORMED VISITORS	AWARE VISITORS
81	838	1.3 k

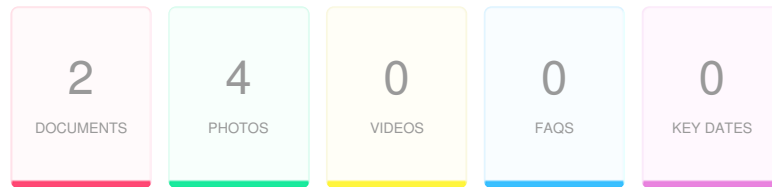
Aware Participants	1,316	Engaged Participants	81
Aware Actions Performed	Participants	Engaged Actions Performed	RegisteredUnverifiedAnonymous
Visited a Project or Tool Page	1,316		
Informed Participants	838	Contributed on Forums	000
Informed Actions Performed	Participants	Participated in Surveys	8100
Viewed a video	0	Contributed to Newsfeeds	000
Viewed a photo	403	Participated in Quick Polls	000
Downloaded a document	348	Posted on Guestbooks	000
Visited the Key Dates page	1	Contributed to Stories	000
Visited an FAQ list Page	0	Asked Questions	000
Visited Instagram Page	0	Placed Pins on Places	000
Visited Multiple Project Pages	757	Contributed to Ideas	00564
Contributed to a tool (engaged)	81		

ENGAGEMENT TOOLS SUMMARY



Tool Type	Engagement Tool Name	Tool Status	Visitors	Contributors		
				Registered	Unverified	Anonymous
Survey Tool	Have your say	Archived	339	81	0	0

INFORMATION WIDGET SUMMARY



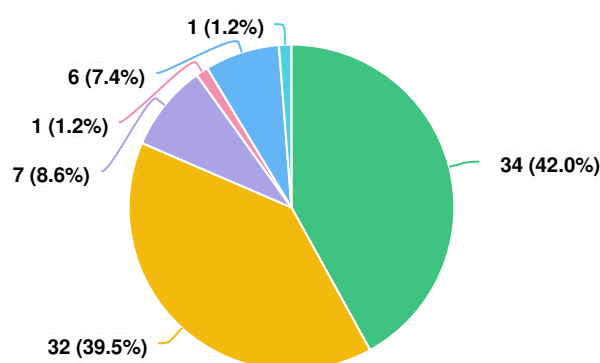
Widget Type	Engagement Tool Name	Visitors	Views/Downloads
Photo	Draft concept plan	381	467
Photo	Tcp Current Site Plan	237	264
Photo	Chalet From Air	180	193
Photo	Sunset Over Turners	113	119
Document	Draft concept plan Turner Caravan Park	336	377
Document	Current Turner Caravan Park Site Plan	117	130
Key Dates	Key Date	1	1

ENGAGEMENT TOOL: SURVEY TOOL

Have your say

VISITORS 339	CONTRIBUTORS 81	CONTRIBUTIONS 81
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My relationship to the park

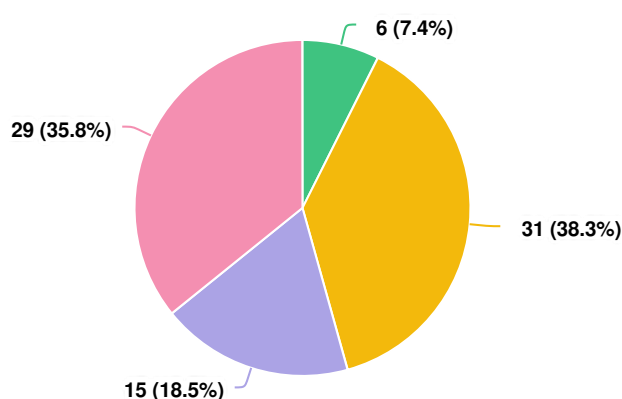


Question options

- Camper
- Caravaner
- Long term tenant/holiday site licensee
- Interested public member
- Ratepayer
- Other

(81 responses, 0 skipped)

My support for the draft concept plan



Question options

- Awesome - don't change a thing
- Good stuff - heading in the right direction
- Okay - needs minor changes
- Revisit - needs major rethinking

(81 responses, 0 skipped)

Please provide your feedback on the draft concept plan

no further comment

Caters for all users needs and promotes a safer park

Larger sites also applicable to the modern camper Trailers with soft floor annexes etc.
Grey water disposal points would also be beneficial

I hope there isn't a plan to reduce the amount of caravan sites in the caravan park

No indication of long term visitors being able to ensure security of existing booking. Reduction in grass area out front of creek looks to reduce POS within the park. This would lead to increased sense of crowding and remove the ideal that exists in this space. Increasing number of powered sites a plus. No mention of upgrade to bathroom/shower facilities. This is not good.

Ensure the park is not overtaken by chalet accommodation. Maintain a generous majority of caravan sites

good work on the plan, much better utilisation of space and integration with existing natural features

It looks ok but please don't loose any more caravan sites. We don't need on-suite sites - just a good space to park our van.
The park should be kept as a park for caravans and campers. Chalets often are placed in the prime positions leaving caravans in lesser sites. This will have a detriment effect on the tone of the park as a good family friendly park as it is now.

Love the idea of upgrades, would be great to see a revamp of the toilets/showers up where the caravan area is. There was a terrible smell last year. Maybe a play area in that section too so that kids don't have to go all the way to the front.

Although the chalets are beyond our budget, there is definitely a desire from holiday makers for riverfront accommodation and Turners is well placed along the Blackwood river for this. AT the same time, the amenity afforded to the front camp areas for access to the river is also very special, so a combination would be good. We also love the trees and the plantings around the park, hopefully fire regulations won't require them to be taken down.

Like all things progress has to come I have been coming to Turners Caravan Park for forty years and loved every bit of it changes must happen but try and keep as family friendly as possible.i stay there every Febuary March and part of April. The park would not be half the park without Garry and Hettie. Should look into opening the boat ramp it suits a lot of people especially the older people.

Ok

Needed for long term tourism growth

The park is almost perfect toilets/showers need upgrade

The casual, low key character & beauty, the relaxed, shady camp ground where our kids can roam freely is why we keep coming back to Turners. Although the ablutions could do with some upgrading, it is the lack of formal roads & buildings we like, the open feel along with the established vegetation including trees for shade. That it is not chock a block campsites jammed in with neighbours on top of you (unless it's Easter which has its own charm!). It would be a shame for this to be lost by increasing the number of chalets & dividing the park up into formal areas for more densely operated different uses. The long term area is distinct now to the balance of the park used by shorter term users - this should remain. Chalet buildings should not encroach along the magnificent & prime river frontage and block this public
More chalets mean higher cost for families. I think you could encourage low season camping by providing upgraded camp kitchen and BBQ shelters better suited to winter.

Leave things alone!! Good the way things are!!! Don't lose what we all love which is quiet affordable family old school caravan park!!

Think it's great

The amount of flattening of trees in the draft plan is unacceptable. Especially in the E2 section. Not only will it change the character of the camp forever and overpopulate it, but it will be removing precious forest and wildlife habitat. This must not go ahead without a significant revisit.

Yes the facilities need updating. The town has plenty of areas for chalet development, so why take away one of the finest camping grounds in the world? Camping is a growing past time in Australia, yet almost every camp site is booked out during peak periods. If more chalets are to be built, they should be built where existing permanent structures exist. Some of the permanent on site vans should go in preference to camping grounds. Camp grounds form a part of Australian life which is affordable to all families regardless of financial status.

Happy to have the redevelopment however; these plans generally exclude the average person from accessing the better part of the facility. For example the new cottages at the front of the park are so expensive to rent that the average family of four or more cannot afford to rent the facility. Normally more cottages will be added forcing the average family with a tent to the back blocks of the park. The facility becomes a "for the rich" park only and young kids and parents miss out on the joy of waking up overlooking the river. Councils and developers get wrapped up in making money and forget about the people and especially the kids

Provided the Park is kept as a Shire operated facility and maintains sufficient sites to accommodate caravans I will be very happy. I am however concerned the Park may be sold to developers and thus would impact upon caravaners.

I like the park layout as it is, organic. The kangaroo flats area could use some work to actually make them flat or use the level areas and top hilly area for chalets not for campers and caravans that need flatter ground

I would not be happy to see the foreshore used for chalets that limit the caravan park residents from access

Would appreciate more chalet accommodation as we don't have caravan or camping equipment but love holidaying in Augusta

I think that it looks pretty good. I am glad that there is still going to be a good number of tent and caravan sites instead of stacks of Chalets, which will inevitably be out of the price range of normal holiday makers

The best thing about this park is the shady trees and the fact that it is mainly camping-caravans intermingled. Camping kids spend their time outdoors running around and socialising. If you build more houses they are going to congregate indoors on electronic gadgets. We come to Turner Park to get away from that. It would be preferable to keep the trees and keep the camping sites. For the off season could you consider seasonal Glamping units (maybe with some heating like they have at Walpole) which can be dismantled in summer to allow the regular families to still bring their tents and caravans. We have been bringing our tent for 7 years and hope to keep doing that while the kids are still in school. It's a week off the internet and we really value that!

Looks great.

Looks good, will certainly attract the Park up. Hopefully won't effect your pricing too much. Turners is a great little park with an amazing location. Keep up the good work.

Good to upgrade facilities

Everything sounds like it's been well considered and will have positive results moving forward

Removing much of the river front camping spots, one site in particular is my favorite site.

For what it's worth, our family have been coming down to this caravan park over the Christmas period for well over 50 years. Certainly seen some changes over the years.

My mum & dad still go down, my wife & I go down along with my 3 children along with their children – my grandkids (who also have their own sites) along with my two brothers, my wife's families (another 4 sites) and our friends.

I hope the park will remain primarily for caravans and campers and not be overrun with chalets.

1. What is the timeframe of the proposed remodelling/construction of the caravan park.

- I can't see that anywhere and would like to know what the timeframe or timeline is.

2. Loss of caravan bay due to new proposed layout (long term camper at Augusta)

- This is my personal concern along with my brother and our friends

- We currently have bay 73 (goes)

- Brother has bay 91 (goes)

- Friends have bay 68C – not shown)

- I would like to think that long termers such as us would be given some preference in selecting a new bay of our choice and location in due course as we also pay in advance for the following year

- The people affected (by losing a spot to the proposed changes) should not have to ring through in February to try and secure a spot. These people (and not just us) should be given priority over any new comers to the park.

3. Proposed Chalets and existing chalets

- I feel the blend of these based on the proposal is a fair mix (but no more)

- Don't restrict the view from the park with chalets

- Make the chalets more affordable all year round.

4. Dump points

- Previously only had one waste dump point where you had to transport the storage canister too.

- With the additional bays being added and more people now having toilets in vans, there needs to be consideration for additional dump points around the caravan park

- Elderly people don't need to be walking to far or having to transport to a dump point.

5. Ablution facilities

- Under the "caravan parks and camping ground regulations" and the "building code", I am not convinced that the proposed changes and new shower block caters for the occupancy in the park.

I believe that as part of the due diligence, the shire need to review the number of Amenity blocks. That is showers, toilets and washing facilities.

- Additional disabled amenities needs to be reviewed or considered also.

- The current facilities are in need of more than an upgrade – they need replacing to bring them in line with other caravan parks in WA

6. Emergency access

- I believe you should more than one access out of the park onto Albany Terrace I case of an emergency or fire

7. Drive through bays

- Should have their own power, water & waste connection

8. Camp kitchen

- Maybe a second camp kitchen would be good idea

9. Kids Playgrounds

- I know the park is on the waterfront and that in itself is a playground but have a look at what some of the other parks provide for kids.

Would still like you to keep river view sites for caravans

I have only stayed at your park once and attempted to stay at another time. I find the development to add more chalets extremely interesting. I would be more inclined to come more often as the chalets provide the kind of accommodation that is suitable for retired folk such as my wife and I.

No more Chalets, Individual ensuite is just taking up valuable space, unnecessary expense for the council, put back use for the boat ramp & perhaps revamp the old existing shower blocks. Turner Caravan Park is great just the way it is!!!!

for public safe the changes will be needed to improve access and keep up with guidelines

Please don't change the park to much as it is a great family park at present. Just needs a few renovations to the toilet blocks. Other wise it is good the way it is.

Building more chalets is a terrific idea. It allows for couples and families to enjoy the facilities all year around at a beautiful location : the best in the SW.

I think it is good to have a mix of chalets and camp sites but thought should be given to the amount of sites that will be removed to make way for chalets, this is a very popular family park and it is sometimes difficult for people to get a site, and to reduce the number of available sites would make harder again to get in, particularly during peak times.

The chalets haven't really seemed to take off ? When we visst in January they are vacant a fair bit? A lot more chalets might not get used.....

From 27th Dec to 10th Jan every year since 2010 we stay on site 68c - behind our friends on site 73. It looks like both these sites are going to be done away with. We have been coming for 8 years our friends for over 35 years - where are you going to move us to? We still want to come and be next to each other? I'm all for doing up the toilets/showers that have needed doing up for years but where are you going to locate the loyal caravaners that sites are being removed in your new plans. 68c isn't even on either map?????

Put extra chalets on other side of park, leave the rest of long termers where they are, anything put up the back of park needs to be aware of ant problem

Like the idea of new & upgraded amenities

The Concept Plan idea is agreed. However as a long term Tenant we believe that development timing be given consideration to your loyal Tenants. And given that in our case we were moved from our existing site (Water Corporation Land) to a new site at considerable cost (to us) as to what assistance is to be offered under the proposed plan.

Excellent idea on more chalets. Drive through sites good way to encourage tourist to visit Augusta area. Ensuite sites verv dood idea and would encourage longer stavs

Looks good as long as costs for sites doesn't increase much.

my main concern is what do you offer the long term campers whose camp sites will be replaced with the new chalets?

Looks good. Happy with the changes I book the same site every year at Christmas and potentially loosing my site due to the changes. Will my family be given a new sites (or choice) to stay at, that is my only concern as my family and friends have been going to turner caravan park for years (decades).

chalets and group accomodation will ruin the vibe of turners, the ones already installed are very boring looking and don't add to the appeal unless you like lego land style. Not opposed to them completely but a bit more creativity could have gone into the design, not sure why they didn't install them on the hilly section which is not that good for camping or caravans?

I believe that the provision of on site ensuite and cabins will attract more visitors to the park over the quieter periods. I hope the improvements will still allow groups to camp together

Proposed Works Area A1 Why remove the permanent/semi permanent existing holiday van/long term sites 42-46 when you can utilise the existing powered sites that have no buildings on them. All Proposed Works can be changed to caravan sites that are powered sites where no building are.

A summary level of site changes was needed,
What is the major reason for change, and the huge investment costs that will need to be recovered.
What is the estimated daily \$ charges compared to the old rates.

to expensive now in off season to cover the 3 cabins already in. we were regular visitors to the park but no more. the standard of cleanliness in amenities has dropped in the last 6 years or more. more cabins will be more cost on sites and make it harder for the average family which was the idea of Turner Park. people from other states do not visit as much now because of cost? we speak to visitors when we see them and say the same thing all the time,

now have about 38 family members there every xmas for our annual pilgrimage) I find that this type of development to be very off putting to the masses that love this location. I am sure you would be hard pressed to find another camper that would be in support of this venture. the only parties that would agree with it would be the major stakeholders and that would be a purely financial decision. in conclusion the park's major attributes are that it is a FAMILY park FOR FAMILIES and see this development is not necessary as the park is a natural beauty as it stands. My feelings go out to the patrons that will lose their sites that they pre book every year and where to locate them to ?

I've never stayed at Turners because we have a dog and so when we have stayed in Augusta, it's always been at Flinders. However, Turners is a lovely park, and we walk on the public footpath through Turners caravan park most weekends and it would be a real shame to lose the aged peppies and gum trees if any of these are earmarked for removal.

I can not see why any changes need to be done But if they are to happen why not place new cabins at the rear of the chalets and to the south of the existing on site holiday site and along the river front. Then expand more van sites west of the creek and leave the rest as is. The 35 short and long stay vans give income of around \$155000 To little cosy to the running of the park If we on Site 80 in the circle are to move we would like to be considered to be relocated to the Karri terrace site

While our preference is to stay on site 28 we realise that this may not be accepted. We would like to be given the opportunity to relocate to Karri Terrace as long as the site is large enough. After looking at the area after the meeting we have concerns that the sites are not large enough for a caravan, annexe and vehicle parking. Our preference would be for one of the sites in E2 with the en-suite. Our concern with the area of E1 is the drive through traffic. It would be necessary for us to be given time to relocate from the old site to the new. As financially for the shire the whole area would need to be sewered at the same time. We would also like to express an interest in at least a 10 year lease so No need to add more permanent chalets. Sure you can update the toilet blocks. No kicking out of long term residents as it is their home. That part of the park is fine how it is. The shire shouldn't be able to kick the permanent residents out. I don't see a problem with having long use spots with short term. I think it is already family friendly but would like to see what it is that the shire thinks would make it more family friendly.

Generally a reasonable proposal for the future even though I am very reluctant to see the Park excessively upgraded . I agree that infrastructure has to be kept up to a good standard and safety issues need to be addressed for now and the future. My strong objection, is the removal of the long term residents on sites 42-46 . These persons have made their lives here in the Park after coming to Augusta for many years . I would like to see them left in peace to live out their final days in the place that they love . There will be opportunities in the future to upgrade these sites . What is the hurry if it means major disruption or destroying of people's lives ? I believe a little humanity is required in the scheme of things. I am also opposed to the removal of premium camp sites 48-51 in the area A2 of the proposed works

Upgrades and chalets are a good idea. It should provide a better quality tourist offering in a picturesque location, something needed in Augusta. It will need good management to make it work, as expectations will be higher.

Why change? Are being persuaded for a concept that is not necessary? This is a happy family friendly park that is fully utilised over the summer/autumn period. Leave the 34 permanent and semi-permanent where they are. Is the Shire forgetting that they produce an income of about \$160,000 per year? which is practically all profit. If the changes were to be made in full the cost would be over \$5,000,000. This could over capitalise the park and lead to it becoming a 'white elephant' that may need rate payers support. If you are looking at the profitability, leave the park as it is - it is doing well. Further profit increases can be made with a few simple changes. Please think carefully before you change something that is doing well. There is an abundance of accommodation in Augusta and Margaret River that needs the Why remove permanents & semi-permanents when you can easily utilise sites 48-51 & sites 27,27a,27b,20c & 20 for more chalets?

As annual visitors to the park we are a bit concerned that more expensive accommodation will be gradually pushout the regulars who have been coming to Turners .

One of the major appeals of this campsite is that it is not overdeveloped. I see the plan is going to remove a campsite from someone who has been coming here for more than 20 years. We have been camping here for almost 10 years now. It is also one of the few campsites with good tree cover for shade, cooling, birdlife, wind protection and attractiveness. Do not remove trees. Fire safety could be improved by making emergency exits exit opposite 155a and at 122. There is always the shallow river if there is a catastrophic fire. It does not need a ring road. Current layout slows cars down - which is good around children. Looking at the numbers, it looks like an overall decrease in the number of campsites. If you really want to put in cabins, then try a phase 1 near Dekkers Block or scattered cabins in the trees NW of Kangaroo flats and see if people really come down to Augusta in the off season - you are competing against a lot of other closer options to Perth. It would be good to survey other coastal places in the southwest to see what their actual winter occupancy rates really are before spending all that money on new and more cabins. It may be cheaper to provide winter glamping tents like they do in Denmark, and store them away during summer to allow regulars to camp. If you want to make some improvements, the ablutions could do with a bit of a renovation. You do not need group accommodation – families already come down in groups and camp on their own sites and mix across sites. Caravans do not need larger sites – all those that we have seen and talked to, do not find this an issue. Are there no other site options for cabins in Augusta? It looks like you are trying to do too much to an existing much-loved campsite. I am not against progress if you need to cater for fire safety codes and disabled access. but see again and again

The plan seems good. See 'other feedback' section.

My husband and I purchased our onsite van this March 2018. We have been holidaying in Augusta for many years but since moving to the park we have met some amazing people.

We would really like to stay in the position we are in. It saddens us to think people in the later part of their lives will be forced to move if you adopt the draft that is currently being voted on. Among the people we have met are many cancer sufferers and survivors. It would be nice if you could show some compassion for some it is their home and others come here to rejuvenate. I think this little bit of paradise means the world to them and this is what keeps them going. Please put the people in Turner Park first.

Totally not necessary.. leave it alone

We would like to see the Caravan Park to remain as a caravan and camping park as per the Turner family wishes. The amenities could do with being upgraded but NO PARK HOMES.

There are mainly 3 people who come to "Turners" every year. We all think basically the same. We are hearing very frequently about travelers who find WA too expensive to stay. While at the park, friends visit with their caravans. All have their own showers etc, We usually stay at site 130, the plan is for ensuite facilities in the row opposite. These changes would mean a lot of people could not afford to stay. We stay for 2 weeks each year plus shorter stays. The upgrading of the ablution block would be very welcome. I can see that we would be visiting more in the future.

Explain how the park will remain family friendly. How will the environment be enhanced and protected? Retain existing amount of natural bush and allocate resources for the management of those areas. Make the central swamp more accessible to visitors by constructing a board walk which will allow for birdwatching in winter. Explain how the park will remain family friendly.

I do not believe you should be taking the front sites away for cabins blocks views and only the rich can afford to stay in them the park needs to be left open at the front

Don't approve of having expensive chalets, too costly for general population and why do they have to be built closest to river and block views for everyone else. Not protecting natural environment by moving campers closer to water ways and removing trees. Augusta needs to be unique and have basic family camping as everyone is going to chalets. Very disappointed elderly and permanent residents have to move, rental accom in Augusta is hard to find and expensive.

More chalets is a Terrible idea for the caravan park. This will ruin so many family holidays and become unachievable for many others. I feel being a camper on site 51 for many many years that I will be forever devastated if a chalet took over this site. The chalets are expensive and I know for our family unaffordable for our usual 2 week family holiday. By saying the chalets bring in an all inclusive family friendly park is a total lie. As I could tell you the names of the people that camp and caravan along the front of the Blackwood but could not tell you a single name of anyone who stayed in the chalets whilst I was down there. That doesn't sound inclusive to me. Or demonstrate a family/community feeling. All other draft plans seem great. However would love the caravan park to become pet friendly.

My family and myself strongly believe that if the council adopts the proposal as it stands it will completely alter the delightful atmosphere and reputation that Turner Caravan Park has built up over the years. We are of the firm opinion that the only changes that are required are to update the ablution facilities and make no changes to anything else. We believe that to remove the semi permanent and permanent residents and their abodes and to replace them with chalets would be seriously detrimental to the ambience of the caravan park.

I am a camper of many years and the reason turners is so amazing is due to the camping sites. No one wants expensive houses to rent in the caravan site. That's what air bnb is for.

Too much development ruins the family atmosphere that "old" caravan sites provide.

Ablution blocks need up grading . i think there are enough cabins , while ive been there in Feb they have had little use and people stopping in them dont create a holiday atmosphere like campers and caravaners do. You need to be aware that some of the people who have been coming for many years come for the friendly atmosphere and if that goes so will your old customers.

1. I think it's very important to provide a 'Parents bathroom' to avoid Dads having to bring their young daughters into the mens toilets and visa versa.

2. Could there be provision for cheaper chalet style accommodation, as the current chalets are very expensive to rent.

- I/we have used the park regularly , camping and in the caravan[January [4-6 weeks every year] Easter, and various other times, for 40 years. The second generation of my family has been doing so for 10 years, and in January 3 generations are in the park.
- I understand that time has caught up and improvements are going to happen.
- I feel my comments should be restricted to the caravan /camping aspect. The issues for the “permanents” are separate and outside my experience.
- I base my comments on a wide personal experience, and the many comments and discussions I have heard on the issue. It has been a constant topic in recent years.

Clientele/Demographic:

- “Turner” campers and caravanners, seek good, well maintained family facilities at a reasonable price. The natural surrounds are the key. No need for jumping pillows and pools!!!!
- This is not the Margaret River/ Busselton clientele!!! There is no call, or need for a Mandalay style park.
- It is almost the last family affordable park in the south-west– a feature that should be at the fore-front of thinking.
- The tenure of the Turner Family bequeath, should be constantly referred to, and it’s integrity maintained.

Survey Responses:

- A degree of apathy may apply – the prolonged to-ing and fro-ing is the significant factor.
- Relevant comment types [rightly or wrongly] are : “we’ve been hearing this for years –is it another yakfest? The Shire will never be able to properly fund it. It is just Councillor Smart’s fantasy. Consultation is just for them to tick a box. The Chalet plan will not even return the current income from that part of the park”.
- Again rightly or wrongly, the on-sight January meetings did little to enhance the situation. A common thought is that they merely confirmed, that, rather than consulting, Councillor Smart was presenting a fait accompli!

Time Plan:

- The lack of, restricts meaningful discussion, especially regarding the key issue of the implementation timeline.
- Will it be a full redevelopment in one go?

Cost structure:

- How will the investment be recouped? What is the the business plan?
- Will the process be transparent?
- Will the new fees negatively transform the park’s current attraction, particularly for families?
- Will the rest of the park have to subsidise the chalet section development, by way of exorbitant fees?
- Will families be priced out of the market?
- The majority of holiday time clients are budget driven . Significant increases will result in lesser time on site. This may well actually decrease overall nett income.
- The issue of “Bali is cheaper” is a real issue, and should never be ignored.

- Clearly the park will have less sites as we know it.
- What will the transition plan be? How do you pick who misses out?
- For the peak times, will the key, historically established, and well respected process of-- “keeping your site” apply by way of confirmation, by way of deposit payment prior to leaving be maintained? I suggest that any deviation from this will cause serious client disquiet.
- The issue of rewarding loyalty will be paramount. Let me assure you that the long term clientele will feel very strongly about this .They see themselves as the ones who have kept the park full for years and years, and contributed many thousands of dollars to the shire coffers.

The February/April clients:

- They are long term regulars, who have for years kept many sites occupied in this quieter time.
- The majority are budget driven [I suggest a check of their concession claims would verify] Any serious fee increase will certainly result in shorter stays, or even seeking other locations, they perceive as fairer to them.
- Again balancing fee structure – ie: paying down debt versus nett take from time on site, versus longer site occupancy, will be crucial.

Off peak use:

I do a lot of caravanning, to many locations.

Let me assure you, the “Grey Nomads “, despite the outward expression of many of their rigs, are:

- Very budget aware.
- Great users of the blogs and apps available, social media in general, and magazines to keep up to date.
- Well aware of RV friendly towns.
- Even more aware of RV unfriendly towns [ask them about Coral Bay or the Geelong area]

Given this, all the drive through- sites, ensuite sites, and advertising will be to no avail if the fee structure , in their view is too high.

Some final points:

- Maintaining good access to the river is crucial. Blocking access to the perceived advantage of the chalet users, would
1. My relationship with the Park: long term caravan and camper. My support for the Plan: “OK needs some minor changes”
 2. Changes suggested are specific to area A2 only, and more specifically from the boat ramp south east, between the access road and the playground area. The changes near the boat ramp to accommodate the 6 chalets is OK – no problem with that. However, I don’t think that any other changes to the remaining bays between the proposed chalets and south to bay 66 should be done. Any intensification of this zone, and the encroachment into the playground area, to create additional bays would devastate it’s current peacefulness and ambience...bearing in mind that it’s not just the occupants of these bays that use this area – all your other tenants use it as well.
 3. General comment on proposed ensuite sites. (not an objection) Hard to read the documentation but I was curious to see the number of ensuite sites proposed. Nearly all caravans these days come with ensuites so I would have thought

in particular at Turners for the past 24 years. We love this caravan park and spend every year looking forward to our holiday there in January. We have had the pleasure of watching our children grow up holidaying at the park and now love watching our grandchildren enjoy wonderful Augusta.

We love the park as it is!

It is safe, easy and affordable and has a delightful old world charm and a warm friendly ambiance. We believe this is what is most at risk with proposed changes. The "family" feel will go and it will be just like every other caravan park. Keep Turners distinctive, family friendly and affordable. We strongly believe that these changes will change the atmosphere of the Park. This used to be a Park that the average working class family could afford. Camping on the water's edge, enjoying the river. Fishing, swimming and games of cricket on the grass. It doesn't get much better than this.

Our children have learnt many life skills through camping at Turners and we are keen for this to continue into our next generation. We have made many lifelong friends through camping at Turners. We have celebrated many family milestones and events at Turners and it is a rich and wonderful part of our family history

\$300 per night chalets on the water's edge has already changed this and now there are more planned..

We just don't understand why change is required. Sure the ablution blocks need upgrading but I just can't see these planned changes bringing more tourists to town. The Park is always full over summer right through to Easter. After Easter the grey nomads head north for warmer weather and Augusta heads to winter and the rest of us head back to work. A few expensive chalets isn't going to change this. We DON'T want Augusta to be like Margaret River, swarming with tourists. That is exactly why we love Augusta. We leave our hectic lives and the tourists of Margaret River behind and head to quiet, serene and peaceful Augusta. It's like a breath of fresh air!!!! Change and development is NOT I am not sure if it will be enough with this email but we are very excited about the plans. The playground will definitely be a hit with the young ones. We have a few lots of friends who do not have caravans so they are excited about the cabins. All great news

We stay at Turner every March long weekend and I think it is lovely the way it is allows plenty of caravan to still have great sites. No need for more chalets let the people use the Air BNBs

We don't feel that the further chalets to be planned for Turners Caravan Park should be all along the front of the caravan park and block the view for annual campers and caravaners. How many caravanners and campers will be deleted from the park in the future... (Note: this email was cut off, no additional information provided after a follow up email).

As a 20 year long patron of the well maintained park we are not against progress but would like to see the park kept as a caravan and camping park

Asking people with a caravan for their opinion on chalets could be a bit like asking turkeys about Christmas. The question I would ask of your expert advisers is how many of them actually spend their holidays in a caravan ... En suite sites sound a bit last century for example. Modern vans are largely self contained. Just saying.

development of area D into group meeting facilities for school groups etc.. This generates an immediate financial return on investment and provides school children the opportunity to experience the open air environment.

However I STRONGLY oppose the redevelopment of the permanent sites throughout the park. Surely these sites are a secure income source for the Shire which will not be matched by any short term use of chalets (1 or 2 nights only due to cost). Further the cost and effort for some of these aged people to re-locate could be devastating to their health and well being. For what they have contributed to the park and the Shire over many years, they deserve more respect and consideration. The question is also, which permanent residents will be relocated and how is that to be decided?

I further question whether it is appropriate for the Shire to be entering into commercial enterprise in opposition to their own rate payers. The existing businesses within the township that provide accommodation and lodging are surely totally opposed to this plan as it can only impact on their livelihoods. Also the short term tourist is not likely to spend at the local supermarkets or restaurants but would bring a couple days provisions with them. The overall financial effect to local business could be irreparable.

The Turner Caravan Park is unique with its ambiances and family friendly outlook. Many long term friendships have been made over many years of camping and sharing. That spirit does not generate within the chalet experience where people generally keep more to themselves and are most likely to be only short term occupants.

Whilst some aspects of the proposed plan have merit, I am OVERALL STRONGLY OPPOSED to the total redevelopment which will result in:

- devastating loss of vegetation
- smaller caravan/camping sites

