235 McLennan Drive Nowergup Vegetation, Flora and Fauna Survey

APPENDICES



APPENDIX 1: CONSERVATION CODES



1. Conservation Codes for Flora, Fauna and Ecological Communities

Table A1-1: Conservation Codes for Western Australian Flora and Fauna

Category	Definition
Threatened (T)	Published as Specially Protected under the Wildlife Conservation Act 1950, and listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
	Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.
	Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.
	The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.
CR	Critically endangered species Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the Wildlife Conservation Act 1950, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EN	Endangered species Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the Wildlife Conservation Act 1950, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
VU	Vulnerable species Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the Wildlife Conservation Act 1950, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.
EX	Presumed extinct species Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the Wildlife Conservation Act 1950, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.
IA	Migratory birds protected under an international agreement Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the Wildlife Conservation Act 1950, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.



Category Definition						
CD	Conservation dependent fauna Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as					
	Specially Protected under the Wildlife Conservation Act 1950, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.					
OS	Other specially protected fauna					
	Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the Wildlife Conservation Act 1950, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.					
Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order priority for survey and evaluation of conservation status so that consideration can be given to their declar as threatened flora or fauna.						
Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other that taxonomic reasons, are placed in Priority 4. These species require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.						
P1 Priority 1: Poorly-known species						

	codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.				
P1	Priority 1: Poorly-known species Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.				
P2	Priority 2: Poorly-known species Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.				
P3	Priority 3: Poorly-known species Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.				



Category	Definition
P4	Priority 4: Rare, Near Threatened and other species in need of monitoring (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands. (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent. (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy

Source: DBCA (2017) Conservation Codes. https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/conservation_code_definitions.pdf



APPENDIX 2: NATUREMAP DATABASE SEARCH RESULTS





NatureMap Species Report

Created By Guest user on 02/09/2017

Current Names Only Yes
Core Datasets Only Yes

Method 'By Circle'

Centre 115° 44' 59" E,31° 37' 12" S

Buffer 5km

Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	363	1066
Presumed extinct	1	1
Priority 1	2	10
Priority 3	4	7
Priority 4	6	74
Protected under international agreement	2	4
Rare or likely to become extinct	7	81
TOTAL	385	1243

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Quei Area
Rare or like	elv to bec	come extinct			
1.	•	Bettongia penicillata subsp. ogilbyi (Woylie, Brush-tailed Bettong)		Т	
2.	1213	Calectasia cyanea (Blue Tinsel Lily)		Т	
3.	24734	Calyptorhynchus latirostris (Carnaby's Cockatoo (short-billed black-cockatoo), Carnaby's Cockatoo)		Т	
4.	24092	Dasyurus geoffroii (Chuditch, Western Quoll)		Т	
5.	13091	Eucalyptus argutifolia (Wabling Hill Mallee)		Т	
6.	24142	Petrogale lateralis subsp. lateralis (Black-flanked Rock-wallaby, Black-footed Rock-wallaby)		Т	
7.	34113	Westralunio carteri (Carter's Freshwater Mussel)		Т	
Presumed	extinct				
8.	24161	Bettongia lesueur subsp. graii (Boodie (inland), Burrowing Bettong (inland))		X	
Protected (under inte	ernational agreement			
9.	24598	Merops ornatus (Rainbow Bee-eater)		IA	
10.	24808	Tringa nebularia (Common Greenshank)		IA	
Priority 1					
11.	34161	Baeckea sp. Limestone (N. Gibson & M.N. Lyons 1425)		P1	
12.	33022	Melaleuca sp. Wanneroo (G.J. Keighery 16705)		P1	Υ
Priority 3					
13.	11461	Hibbertia spicata subsp. leptotheca		P3	
14.	19460	Leucopogon sp. Yanchep (M. Hislop 1986)		P3	
15.	5237	Pimelea calcicola		P3	
16.	13127	Stylidium maritimum		P3	
Priority 4					
17.	25478	Isoodon obesulus (Southern Brown Bandicoot)		P4	
18.	24153	Isoodon obesulus subsp. fusciventer (Quenda, Southern Brown Bandicoot)		P4	
19.	4027	Jacksonia sericea (Waldjumi)		P4	
20.	24133	Macropus irma (Western Brush Wallaby)		P4	
21.	24328	Oxyura australis (Blue-billed Duck)		P4	
22.	33992	Synemon gratiosa (Graceful Sunmoth)		P4	
Non-conse	rvation ta	axon			
23.	15470	Acacia barbinervis subsp. borealis			
24.	3409	Acacia lasiocarpa (Panjang)			
25.	11611	Acacia lasiocarpa var. lasiocarpa			
26.	3502	Acacia pulchella (Prickly Moses)			
27.	15482	Acacia pulchella var. goadbyi			
28.	3525	Acacia rostellifera (Summer-scented Wattle)			
29.	3584	Acacia truncata			
30.	24260	Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill)			******

Department of Parks and Wildlife





	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
31.		Acanthiza chrysorrhoa (Yellow-rumped Thornbill)			
32.		Acanthiza inornata (Western Thornbill)			
33.		Acanthocarpus preissii			
34. 35.		Acanthorhynchus superciliosus (Western Spinebill) Accipiter cirrocephalus (Collared Sparrowhawk)			
36.		Accipiter fasciatus (Brown Goshawk)			
37.		Acrocephalus australis (Australian Reed Warbler)			
38.		Aganippe rhaphiduca			
39.	184	Aira caryophyllea (Silvery Hairgrass)	Υ		
40.	1728	Allocasuarina fraseriana (Sheoak, Kondil)			
41.	1732	Allocasuarina humilis (Dwarf Sheoak)			
42.	2668	Amaranthus powellii (Powell's Amaranth)	Υ		
43.	2671	Amaranthus viridis (Green Amaranth)	Υ		
44.		Amblyomma triguttatum			
45.		Anas gracilis (Grey Teal)			
46.		Anas rhynchotis (Australasian Shoveler)			
47. 48.		Anas superciliosa (Pacific Black Duck) Andersonia lehmanniana			
49.		Anhinga novaehollandiae (Australasian Darter)			
50.		Anigozanthos humilis (Catspaw)			
51.		Antaresia stimsoni subsp. stimsoni (Stimson's Python)			
52.		Anthochaera carunculata (Red Wattlebird)			
53.	24562	Anthochaera lunulata (Western Little Wattlebird)			
54.	24991	Aprasia repens (Sand-plain Worm-lizard)			
55.	24285	Aquila audax (Wedge-tailed Eagle)			
56.		Araneus cyphoxis			
57.		Araneus senicaudatus			
58.		Ardea novaehollandiae (White-faced Heron)			
59.		Ardren pacifica (White-necked Heron)			
60. 61.		Artamus cinereus (Black-faced Woodswallow)			
62.		Artamus cyanopterus (Dusky Woodswallow) Astartea scoparia (Common Astartea)			
63.		Astroloma microcalyx (Native Cranberry)			
64.		Astroloma pallidum (Kick Bush)			
65.		Austrostipa flavescens			
66.	233	Avena barbata (Bearded Oat)	Υ		
67.	24318	Aythya australis (Hardhead)			
68.	1800	Banksia attenuata (Slender Banksia, Piara)			
69.	1834	Banksia menziesii (Firewood Banksia)			
70.	5000	Barnardius zonarius			
71.		Beaufortia elegans (Elegant Beaufortia)			
72. 73.		Biziura lobata (Musk Duck) Bos taurus (European Cattle)	Υ		
74.		Bossiaea eriocarpa (Common Brown Pea)	,		
75.		Brachyurophis fasciolatus subsp. fasciolatus (Narrow-banded Shovel-nosed Snake)			
76.		Brachyurophis semifasciatus (Southern Shovel-nosed Snake)			
77.		Brassica barrelieri subsp. oxyrrhina (Smooth-stem Turnip)	Υ		
78.	3000	Brassica tournefortii (Mediterranean Turnip)	Υ		
79.	244	Briza maxima (Blowfly Grass)	Υ		
80.	245	Briza minor (Shivery Grass)	Υ		
81.		Bromus diandrus (Great Brome)	Υ		
82.		Cacatua pastinator (Western Long-billed Corella)			
83.		Cacatua sanguinea (Little Corella)			
84. 85.		Cacomantis flabelliformis (Fan-tailed Cuckoo) Caesia micrantha (Pale Grass Lily)			
85. 86.		Caladenia bicalliata			
87.		Caladenia flava (Cowslip Orchid)			
88.		Caladenia latifolia (Pink Fairy Orchid)			
89.		Calandrinia liniflora (Parakeelya)			
90.		Calothamnus lateralis			
91.	5426	Calothamnus quadrifidus (One-sided Bottlebrush, Kwowdjard)			
92.	5429	Calothamnus sanguineus (Silky-leaved Blood flower, Pindak)			
93.		Calytrix flavescens (Summer Starflower)			
94.		Cassytha glabella (Tangled Dodder Laurel)			
95.		Cassytha racemosa (Dodder Laurel)			
96.		Centrolepis drummondiana Centrolepis drummondiana Centrolepis drummondiana Centrolepis drummondiana	V		
97. 98.		Cerastium glomeratum (Mouse Ear Chickweed) Charadrius ruficapillus (Red-capped Plover)	Υ		
98. 99.		Charadrius runcapillus (Red-capped Plover) Chelodina colliei (South-western Snake-necked Turtle)			
100.		Chenonetta jubata (Australian Wood Duck, Wood Duck)			







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
101.	2483	Chenopodium album (Fat Hen)	Υ		
102.	24980	Christinus marmoratus (Marbled Gecko)			
103.		Chroicocephalus novaehollandiae			
104.		Circus approximans (Swamp Harrier)			
105.		Colluricincla harmonica (Grey Shrike-thrush)			
106.		Comesperma calymega (Blue-spike Milkwort)			
107.		Comesperma confertum			
108.		Conospermum incurvum (Plume Smokebush)			
109. 110.		Conospermum stoechadis subsp. stoechadis (Common Smokebush) Conostephium pendulum (Pearl Flower)			
111.		Conostylis aculeata (Prickly Conostylis)			
112.		Conostylis candicans (Grey Cottonhead)			
113.		Conostylis setigera (Bristly Cottonhead)			
114.	25568	Coracina novaehollandiae (Black-faced Cuckoo-shrike)			
115.		Cormocephalus turneri			
116.	25592	Corvus coronoides (Australian Raven)			
117.	1285	Corynotheca micrantha (Sand Lily)			
118.	25595	Cracticus tibicen (Australian Magpie)			
119.		Cracticus torquatus (Grey Butcherbird)			
120.		Crassula colorata (Dense Stonecrop)			
121.		Cryptandra mutila			
122.		Cryptoblepharus buchananii			
123.		Ctenotus fallens			
124.		Cuscuta planiflora	Υ		
125.		Cygnus atratus (Black Swan)			
126.		Cyrtostylis huegelii	V		
127.		Dacelo novaeguineae (Laughing Kookaburra)	Υ		
128. 129.		Daphoenositta chrysoptera (Varied Sittella)			
130.		Daucus glochidiatus (Australian Carrot) Daviesia angulata			
130.		Daviesia divaricata (Marno)			
132.		Desmocladus asper			
133.		Dianella revoluta (Blueberry Lily)			
134.		Dichopogon capillipes			
135.		Dictyota dichotoma var. intricata			
136.		Diplodactylus polyophthalmus			
137.		Diplolaena angustifolia (Yanchep Rose)			
138.		Disa bracteata	Υ		
139.	3095	Drosera erythrorhiza (Red Ink Sundew)			
140.	3106	Drosera macrantha (Bridal Rainbow)			
141.	13216	Drosera menziesii subsp. penicillaris			
142.	25100	Egernia napoleonis			
143.		Egretta novaehollandiae			
144.	347	Ehrharta calycina (Perennial Veldt Grass)	Υ		
145.	349	Ehrharta longiflora (Annual Veldt Grass)	Υ		
146.		Elanus axillaris			
147.	1643	Elythranthera brunonis (Purple Enamel Orchid)			
148.		Eolophus roseicapillus			
149.		Eragrostis curvula (African Lovegrass)	Υ		
150.		Eriochilus dilatatus (White Bunny Orchid)			
151.		Eryngium pinnatifidum subsp. pinnatifidum Eryngium pinnatifidum subsp. pinnatifidum			
152. 153		Eucalyptus decipiens (Limestone Marlock, Moit) Eucalyptus foecunda (Narrow-leaved Red Mallee)			
153. 154.		Eucalyptus roecunda (Narrow-leaved Red Mailee) Eucalyptus gomphocephala (Tuart, Duart)			
155.		Eucalyptus gompnocephaia (Tuart, Duart) Eucalyptus petiolaris	Υ		
156.		Eucalyptus petrensis	•		
157.		Eucalyptus rudis subsp. rudis			
158.		Falco berigora (Brown Falcon)			
159.		Falco cenchroides (Australian Kestrel, Nankeen Kestrel)			
160.		Falco longipennis (Australian Hobby)			
161.		Felis catus (Cat)	Υ		
162.		Fulica atra (Eurasian Coot)			
163.	24761	Fulica atra subsp. australis (Eurasian Coot)			
164.	7976	Galinsoga parviflora (Potato Weed)	Υ		
165.	25729	Gallinula tenebrosa (Dusky Moorhen)			
166.	24763	Gallinula tenebrosa subsp. tenebrosa (Dusky Moorhen)			
167.	25530	Gerygone fusca (Western Gerygone)			
168.		Gladiolus caryophyllaceus (Wild Gladiolus)	Υ		
169.		Glischrocaryon aureum (Common Popflower)			
170.	3957	Gompholobium tomentosum (Hairy Yellow Pea)			
				Departmen	tof misseur







1711 1915 Concesque patripoches		Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
17.1. 24443	171.	6161	Gonocarpus pithyoides			
174. 19.009 Controlley pressur Audog, process 175. 2714 Opinitiones consultations (Contyporal) 176. 2714 Opinitiones consultations (Contyporal) 177. 2716 Principoral Security Review (Audo) 177. 2716 Principoral Security Review (Audo) 178. 2717 Principoral Security Review (Audo) 179. 2717 Principoral Security Review (Audo) 1814 2717 Principoral Security (Audo) 1815 2717 Principoral Security (Audo) 1816 2717 Principoral Security (Audo) 1817 1818 Principoral Security (Audo) 1818 2717 Principoral Security (Audo) 1819 1718 Principoral Security (Audo) 1810 2717 Principoral Security (Audo) 1811 2717 Principoral Security (Audo) 1812 2717 Principoral Security (Audo) 1813 2717 Principoral Security (Audo) 1814 2717 Principoral Security (Audo) 1815 2717 Principoral Security (Audo) 1816 2717 Principoral Security (Audo) 1817 2717 Principoral Security (Audo) 1818 2717 Principoral Security (Audo) 1819 2717 Principoral Security (Audo) 1810 2717 Principoral Security (Audo) 1811 2717 P	172.	19286	Goodenia pulchella subsp. Coastal Plain A (M. Hislop 634)			
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176. 276 Cytolenov servicus (Chybrids) 177. 1214 (1916 Remembers seators) 178. 214 (1916 Remembers seators) 178. 215 (1916 Remembers seators) 179. 217 (1916 Remembers seators) 179. 217 (1916 Remembers seators) 180. 2203 Harbon Annolina (Control Falsos) 180. 2405 (1916 Remembers) 180. 2406 (1916 Remembers) 180. 2407 (1916 Remembers) 180. 2507						
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195. 2941-6 Prinksporting parties	182.					
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1977. 19933 Fernimority glabra	185.	25410	Heleioporus eyrei (Moaning Frog)			
188. 25119 Herminoring quadrithrosian 199. 5112 Millerinia surve 191. 5151 Millerinia surve 191. 5151 Millerinia surve 192. 43200 Millerinia serizospatia 192. 43200 Millerinia serizospatia 193. 43200 Millerinia serizospatia 193. 43201 Millerinia serizospatia 194. 25731 Herminopua finimiziopua (finimiziopua finimiziopua finimizio finimiziopua finimiziopua finimiziopua finimiziopua finimiziopua finimiziopua finimiziopua finimiziopua finimiziopua finimizio finimiziopua finimiziopua finimiziopua finimizio finimizi	186.	3016	Heliophila pusilla	Y		
198. 1283 Hernamania iurbinata nurse	187.	16933	Hemiandra glabra			
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1922						
193. 47865 Hieranetus morphonolosis (Lillie Eagle) 194. 25734 Himstorius himstorius (Black-kinged Still) 195. 24491 Himstor neuseria (Welcores Swallow) 196. 446 Hobas subject (Annual Fog) Y 197. 6222 Homistorius (Jewis Pins, Puperak) 198. 3966 Hoves pungnis (Devira Pins, Puperak) 199. 19285 Hoves attegems van Hisperama 199. 19285 Hoves attegems van Hisperama 200. 5216 Hybarthus calpicinis (Wild Volet) 201. 6232 Hydrocopin hispiciulis 202. 8966 Hybacheris glabris (Smooth Caleaer) Y 203. 1977 Hypotheria sakuka 204. Intelligium sp. 205. 14783 Jacksonia stambergiana (Stinkwood, Kapur) 207. 467 Laguns ovalus (Hiera Tail Crass) Y 208. 2245 Lans novaeholianidas subsp. novaeholianidas 209. 2451 Lans novaeholianidas subsp. novaeholianidas 210. 2734 Lachanidas florationidas (Polevor Leonardius) 211. 7850 Lachanidas florationidas (Polevor Leonardius) 212. 203. Lachanidas florationidas (Polevor Leonardius) 213. 4274 Lapideogenium acalectoria 214. 434 Lapideogenium acalectoria 215. 946 Lapideogenium acalectoria 216. 1635 Lapideogenium acalectoria 217. 2252 Lapideogenium acalectoria 218. 2252 Lapideogenium acalectoria 219. 2404 Lapideogenium acalectoria 210. 2704 Lapideogenium acalectoria 211. 2352 Lapideogenium acalectoria 212. 2252 Lapideogenium acalectoria 213. 2434 Lapideogenium acalectoria 214. 2355 Lapideogenium acalectoria 215. 2455 Lapideogenium acalectoria 216. 2455 Lapideogenium acalectoria 217. 2255 Lapideogenium acalectoria 218. 2352 Lapideogenium acalectoria 226. 22						
194. 25734 Hirandrous Immantous (Black-winged Stift) 195. 24491 Hirandro nesurae (Welcome Smallous)			·			
195. 24491 Hirundo nouvers (Wolcoms Smillow)			7 7			
196. 445 Notus edigin (Annual Figu) 197. 6222 Homalosaidum homalocerpum 188. 3066 Novea pungens (Deni's Pins, Puyenak) 199. 12859 Novea trisporma var. Insporma 200. 5216 Pythoralus calychrus (Virk Viole) 201. 6232 Pythocopyle hisplatulia 202. 8086 Prypochaera glabria (Smooth Catsear) 203. 1070 Pypolenan exuke 204. 4029 Jacksonia stembergiana (Sinkwood, Kapur) 205. 14783 Jacksonia stembergiana (Sinkwood, Kapur) 206. 4029 Jacksonia stembergiana (Sinkwood, Kapur) 207. 407 Lagrus orwans (Nare's Tali Grass) 208. 28342 Landolis punctisal (Thin Duckwood) 209. 28341 Lansa convenibilandiae alugh, noveahollandiae (Silver Guill) 210. 7574 Lechanauldia Robunda (Frien-dovernatio) 211. 7580 Lechanauldia Robunda (Frien-dovernatio) 212. 3925 Lapidosporma steatura 213. 42742 Lapidosporma sociotoria 214. 3444 Lapidosporma sociotoria 215. 346 Lapidosporma sociotoria 216. 2374 Lapidosporma miratura 2175. 2344 Lapidosporma miratura 218. 2382 Lapidosporma sociotoria 219. 5447 Lapidosporma miratura 219. 5447 Lapidosporma presistaina 219. 5447 Lapidosporma presistaina 219. 5447 Lapidosporma miratura 220. 1000 Lapidosporma sintaina 221. 25165 Lenista proepedilia 222. 6427 Laucopogn parliforus (Coast Beard-heath) 223. 2505 Lialia Euronia presistaina 224. 7677 Levenhookia sipistaia (Common Sylevort) 225. 2266 Lialia Euronia indicatina (Brown Honeyeater) 226. 2366 Lialia Euronia (Brown Honeyeater) 227. 238 Lomandra miratura 231. 1454 Lennarda miratura 232. 1436 Lomandra miratura subsp. mirantura 233. 1436 Lomandra miratura subsp. mirantura 234. 1456 Lomandra miratura subsp. mirantura 235. 1456 Lomandra miratura subsp. mirantura 236. 1456 Lomandra miratura subsp. mirantura 237. 85 Marcazamia riedei (Zarnia, Dirisiy) 238. 24544 Malauna tambora indiga saminia (Variegated Fairy-wan)						
1987. 8222 Hornelacia-dum Nomelocarpum 1988. 3966 Hovea progrems (Peril's Pins, Prypensk) 1999. 12859 Hovea trisperma var. trisperma 2000. 5216 Hybanthus celyicrus (Wild Violet) 2011. 6232 Hybrocyclop hispidula 2022. 8986 Hypochaen's glahar (Smooth Catsear) Y 2033. 1070 Hypochaen's glahar (Smooth Catsear) Y 2034. Indopense assubea 14783 Jacksonia calicicola 14783 Jacksonia calicicola 2034. Indopense service priesa (Slinkwood, Kapur) 2075. 467 Lagurus centus (Faries's Tall Grass) Y 2076. 83842 Landolina punteia (Tim Louckwed) 2088. 28342 Landolina punteia (Tim Louckwed) 2089. 24511 Lana novaeholinadiae subsp. novaeholinan(ies (Silver Guill) 2111. 7580 Lachenaulite invaniciaes (Viellow Leschenaulite) 2121. 7580 Lachenaulite invaniciaes (Viellow Leschenaulite) 2122. 9252 Lapidosperma acquitatum 2124. 9444 Lapidosperma calicicola 2144. 9446 Lapidosperma calicicola 2145. 9456 Lapidosperma calicicola 2146. 9456 Lapidosperma calicicola 2147. 2244 Lapotoneria preissiona 2168. 1653 Lapotoneria minetaria minetaria (Parametria Constitutiona				Υ		
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200. 5216 Hybanthus calycinus (Wild Violet)	198.	3966	Hovea pungens (Devil's Pins, Puyenak)			
201. 6232 Hydrocotyle hispidula Y	199.	12859	Hovea trisperma var. trisperma			
202. 8086 Hypochaeris glabra (Smooth Catsear) Y	200.	5216	Hybanthus calycinus (Wild Violet)			
203. 1070 Hypoleene exsulca Indopium sp.	201.	6232	Hydrocotyle hispidula			
204.				Y		
205		1070				
206. 4029 Jacksonia stembergiana (Stinkwood, Kapur) 207. 467 Lagurus ovalus (Hare's Tail Grass) Y		4.4700				
207. 467 Lagurus ovatus (Hare's Tail Grass) Y 208. 28342 Landolite punciate (Thin Duckweed)						
208. 28342 Landoltia punctata (Thin Duckwed) 209. 24511 Larus novaehollandiae subsp. novaehollandiae (Silver Gull) 210. 7574 Lechenalutia (Indunda (Free-flowering Leschenaultia) 211. 7580 Lechenaultia (Indunda (Free-flowering Leschenaultia) 212. 925 Lepidosperma angustatum 213. 4274 Lepidosperma scristum 214. 944 Lepidosperma striatum 215. 946 Lepidosperma striatum 216. 1653 Leporelia firbriata (Hare Orchid) 217. 2344 Leptomeria preissiana 219. 5847 Leptospermum erübescens (Roadside Teatree) 220. 1090 Lepyrodia murir 221. 25165 Lerista praepedita 222. 6427 Leucopogon parvillorus (Coast Beard-heath) 223. 6434 Leucopogon polymorphus 224. 1671 Levenhookia sipitat (Common Stylewort) 225. 2505 Lialis burtonis 226. 25661 Lichmera indistricta (Brown Honeyeater) 227. 2451 Limodynastas dorsalis (Western Banjo Frog) 228. 7408 Lobelia tenuior (Slender Lobelia) 229. 1221 Lomandra micrantha subsp. micrantha 23				V		
209. 24511 Larus novaehollandiae subsp. novaehollandiae (Silver Gull) 210. 7574 Lechenautiai Inchunda (Free-Rowening Leschenautia) 211. 7580 Lechenautiai Incividuse (Yellow Leschenautia) 212. 925 Lepidosperma angustatum 213. 42742 Lepidosperma scabrum 215. 946 Lepidosperma scabrum 216. 1653 Leporella (Imbrida (Hare Orchid) 217. 2344 Leptomeria preissiana 218. 2352 Leptomeria preissiana 219. 5847 Leptospermum enrubescens (Roadside Teatree) 220. 1090 Lepyrodia muiri 221. 25165 Lerista praepedita 222. 6427 Leucopogon parvillorus (Coast Beard-heath) 223. 6434 Leucopogon polymorphus 224. 7677 Levenhookia stipitata (Common Stylewort) 225. 25005 Lialis burtonis 226. 2561 Lichmera indistincta (Brown Honeyeater) 227. 25415 Limnodynastes dorsalis (Western Banjo Frog)				·		
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	240.	25652	Malurus leucopterus (White-winged Fairy-wren)			
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	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
241.	25654	Malurus splendens (Splendid Fairy-wren)			
242.		Megalurus gramineus (Little Grassbird)			
243.		Melaleuca huegelii (Chenille Honeymyrtle)			
244.		Melaleuca preissiana (Moonah)			
245.		Melaleuca systena Melaleuca terstifolio (Panhar)			
246. 247.		Melaleuca teretifolia (Banbar) Melaleuca urceolaris			
248.		Menetia greyii			
249.		Mesomelaena pseudostygia			
250.		Microcarbo melanoleucos			
251.	485	Microlaena stipoides (Weeping Grass)			
252.	15419	Microtis media subsp. media			
253.	8106	Millotia tenuifolia (Soft Millotia)			
254.	25240	Morelia spilota subsp. imbricata (Carpet Python)			
255.	24223	Mus musculus (House Mouse)	Υ		
256.		Neelaps bimaculatus (Black-naped Snake)			
257.		Neophema elegans (Elegant Parrot)			
258.		Notechis scutatus (Tiger Snake)			
259.		Nuytsia floribunda (Christmas Tree, Mudja)			
260.	25564	Nycticorax caledonicus (Rufous Night Heron)			
261.	24407	Occiperipatoides gilesii			
262. 263.		Ocyphaps lophotes (Crested Pigeon) Opercularia vaginata (Dog Weed)			
263. 264.		Orthrosanthus laxus (Morning Iris)			
265.		Oryctolagus cuniculus (Rabbit)	Υ		
266.		Ovis aries (Sheep)			
267.		Oxalis pes-caprae (Soursob)	Υ		
268.		Pachycephala rufiventris (Rufous Whistler)			
269.		Paraplectanoides crassipes			
270.	25253	Parasuta gouldii			
271.	25682	Pardalotus striatus (Striated Pardalote)			
272.	4343	Pelargonium capitatum (Rose Pelargonium)	Υ		
273.	24648	Pelecanus conspicillatus (Australian Pelican)			
274.	2273	Persoonia saccata (Snottygobble)			
275.	48061	Petrochelidon nigricans (Tree Martin)			
276.	48066	Petroica boodang (Scarlet Robin)			
277.		Petrophile axillaris			
278.		Petrophile linearis (Pixie Mops)			
279.		Petrophile macrostachya			
280.		Petrophile serruriae			
281.		Phalacrocorax melanoleucos (Little Pied Cormorant)			
282. 283.		Phalacrocorax sulcirostris (Little Black Cormorant) Phaps chalcoptera (Common Bronzewing)			
284.		Phylidonyris niger (White-cheeked Honeyeater)			
285.		Phylidonyris novaehollandiae (New Holland Honeyeater)			
286.		Phyllanthus calycinus (False Boronia)			
287.		Phytolacca octandra (Red Ink Plant)	Υ		
288.		Phytophthora cinnamomi			
289.	5243	Pimelea ferruginea			
290.		Pimelea rosea subsp. rosea			
291.	5268	Pimelea sulphurea (Yellow Banjine)			
292.	42281	Pithocarpa cordata			
293.		Platalea flavipes (Yellow-billed Spoonbill)			
294.		Platycercus icterotis (Western Rosella)			
295.		Platytheca galioides			
296.		Poa drummondiana (Knotted Poa)			
297.		Poa porphyroclados			
298.		Podiceps cristatus (Great Crested Grebe)			
299. 300.		Podolepis gracilis (Slender Podolepis) Podotheca chrysantha (Yellow Podotheca)			
300.		Pogona minor subsp. minor (Dwarf Bearded Dragon)			
301.		Poliocephalus poliocephalus (Hoary-headed Grebe)			
303.		Polytelis anthopeplus (Regent Parrot)			
304.		Poranthera microphylla (Small Poranthera)			
305.		Porphyrio porphyrio (Purple Swamphen)			
306.		Porphyrio porphyrio subsp. bellus (Purple Swamphen)			
307.		Porzana pusilla subsp. palustris (Baillon's Crake)			
308.		Pseudonaja affinis subsp. affinis (Dugite)			
309.	25433	Pseudophryne guentheri (Crawling Toadlet)			
310.	12217	Pterostylis sanguinea			
				Departmen	tof







	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
311.	1698	Pterostylis vittata (Banded Greenhood)			
312.	2751	Ptilotus polystachyus (Prince of Wales Feather)			
313.		Purpureicephalus spurius			
314.		Quinetia urvillei			
315.		Rattus fuscipes (Western Bush Rat)	V		
316. 317.	24245	Rattus rattus (Black Rat) Raveniella cirrata	Υ		
318.		Raveniella peckorum			
319.	6012	Regelia ciliata			
320.		Rhagodia baccata subsp. baccata			
321.	48096	Rhipidura albiscapa (Grey Fantail)			
322.	25614	Rhipidura leucophrys (Willie Wagtail)			
323.	1556	Romulea rosea (Guildford Grass)	Υ		
324.	13182	Scaevola repens var. repens			
325.		Scaevola thesioides subsp. thesioides			
326.		Schoenus clandestinus			
327. 328.		Schoenus curvifolius Schoenus discifer			
329.		Schoenus lanatus (Woolly Bog-rush)			
330.		Sericornis frontalis (White-browed Scrubwren)			
331.		Seriola lalandi			
332.	8225	Siloxerus humifusus (Procumbent Siloxerus)			
333.	25266	Simoselaps bertholdi (Jan's Banded Snake)			
334.	42785	Sirophysalis trinodis			
335.		Smicrornis brevirostris (Weebill)			
336.		Solanum nodiflorum (Glossy Nightshade)	Υ		
337.		Sonchus oleraceus (Common Sowthistle)	Υ		
338.		Sowerbaea laxiflora (Purple Tassels)			
339. 340.		Sparaxis bulbifera Sparaxis bulbifera	Υ		
340.		Spyridium globulosum (Basket Bush) Stenopetalum robustum			
342.		Strepera versicolor (Grey Currawong)			
343.		Streptopelia chinensis (Spotted Turtle-Dove)	Υ		
344.		Streptopelia senegalensis (Laughing Turtle-Dove)	Υ		
345.	7696	Stylidium calcaratum (Book Triggerplant)			
346.	7717	Stylidium divaricatum (Daddy-long-legs)			
347.	7774	Stylidium piliferum (Common Butterfly Triggerplant)			
348.		Stylidium rigidulum			
349.		Stypandra glauca (Blind Grass)			
350. 351		Synaphea spinulosa subsp. spinulosa Tachybaptus novaehollandiae (Australasian Grebe, Black-throated Grebe)			
351. 352.		Tachybaptus novaehollandiae (Australasian Grebe, Black-Illioated Grebe) Tachybaptus novaehollandiae subsp. novaehollandiae (Australasian Grebe, Black-			
332.	24002	throated Grebe)			
353.	24331	Tadorna tadornoides (Australian Shelduck, Mountain Duck)			
354.		Tarsipes rostratus (Honey Possum, Noolbenger)			
355.	4256	Templetonia retusa (Cockies Tongues)			
356.	5105	Thomasia triphylla			
357.	24845	Threskiornis spinicollis (Straw-necked Ibis)			
358.		Thysanotus multiflorus (Many-flowered Fringe Lily)			
359.		Thysanotus patersonii			
360.		Thysanotus sparteus			
361. 362.		Tiliqua rugosa subsp. aspera Tiliqua rugosa subsp. rugosa			
363.		Todiramphus sanctus (Sacred Kingfisher)			
364.		Trachymene pilosa (Native Parsnip)			
365.		Trichoglossus haematodus (Rainbow Lorikeet)			
366.	1361	Tricoryne elatior (Yellow Autumn Lily)			
367.	4292	Trifolium campestre (Hop Clover)	Υ		
368.	4295	Trifolium dubium (Suckling Clover)	Υ		
369.		Trifolium glomeratum (Cluster Clover)	Υ		
370.		Trifolium scabrum (Rough Clover)	Υ		
371.	152	Triglochin trichophora			
372. 373	0054	Urocacus novaehollandiae	V		
373. 374.		Urospermum picroides (False Hawkbit) Ursinia anthemoides (Ursinia)	Y Y		
374.		Varanus tristis (Racehorse Monitor)			
376.		Verbesina encelioides	Υ		
377.		Vicia sativa subsp. nigra	Υ		
378.	4325	Viminaria juncea (Swishbush, Koweda)			
379.	724	Vulpia myuros (Rat's Tail Fescue)	Υ		







		Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
	380.	7389	Wahlenbergia preissii			
	381.	8282	Waitzia suaveolens (Fragrant Waitzia)			
	382.		Westrarchaea spinosa			
	383.	1256	Xanthorrhoea preissii (Grass tree, Palga)			
	384.	6289	Xanthosia huegelii			
	385.	25765	Zosterops lateralis (Grey-breasted White-eye, Silvereye)			

- Conservation Codes

 1 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

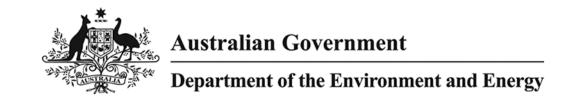
- ¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholely contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only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





APPENDIX 3: EPBC PROTECTED MATTERS DATABASE SEARCH RESULTS





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 <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 25/08/17 13:05:03

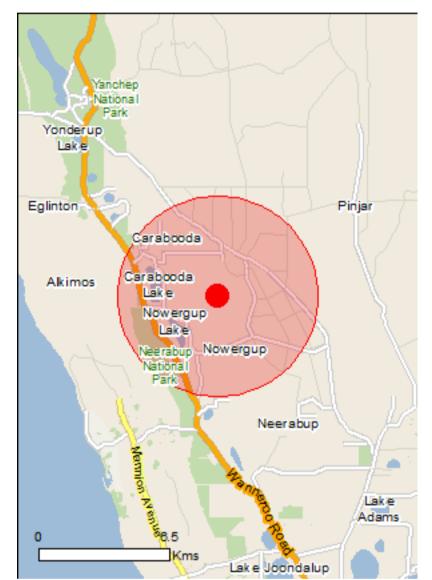
Summary

Details

Matters of NES
Other Matters Protected by the EPBC Act
Extra Information

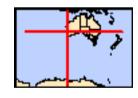
Caveat

<u>Acknowledgements</u>



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

Coordinates
Buffer: 5.0Km



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 <u>Administrative Guidelines on Significance</u>.

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:	18
Listed Migratory Species:	10

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 <u>permit</u> 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:	16
Whales and Other Cetaceans:	None
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:	2
Regional Forest Agreements:	None
Invasive Species:	37
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities

Listed Threatened Leological Communities		[TCSource 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	
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area	
Listed Threatened Species		[Resource Information]	
Name	Status	Type of Presence	
Birds			
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	
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat likely to occur within area	
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur within area	
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	
Mammals			
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area	
Plants			
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area	
Anigozanthos viridis subsp. terraspectans Dwarf Green Kangaroo Paw [3435]	Vulnerable	Species or species habitat likely to occur within area	

[Resource Information]

	Status	Type of Presence
Caladenia huegelii		
King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat likely to occur within area
<u>Diuris micrantha</u>		
Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area
<u>Diuris purdiei</u>		
Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area
<u>Drakaea elastica</u>		
Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area
<u>Drakaea micrantha</u>		
Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat may occur within area
Eleocharis keigheryi		
Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat may occur within area
Eucalyptus argutifolia		
Yanchep Mallee, Wabling Hill Mallee [24263]	Vulnerable	Species or species habitat likely to occur within area
<u>Lepidosperma rostratum</u>		
Beaked Lepidosperma [14152]	Endangered	Species or species habitat likely to occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name or	the EPRC Act - Threatene	
Name	Threatened	Type of Presence
Migratory Marine Birds	Threatened	Type of Frescribe
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat
		likely to occur within area
Migratory Terrestrial Species		•
Migratory Terrestrial Species Motacilla cinerea		•
		•
Motacilla cinerea		likely to occur within area Species or species habitat
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309]		likely to occur within area Species or species habitat
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata		Species or species habitat may occur within area Species or species habitat likely to occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata		Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata Sharp-tailed Sandpiper [874]	Endangered	Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata Sharp-tailed Sandpiper [874] Calidris canutus	Endangered	Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata Sharp-tailed Sandpiper [874] Calidris canutus Red Knot, Knot [855]	Endangered Critically Endangered	Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata Sharp-tailed Sandpiper [874] Calidris canutus Red Knot, Knot [855] Calidris ferruginea	-	Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata Sharp-tailed Sandpiper [874] Calidris canutus Red Knot, Knot [855] Calidris ferruginea Curlew Sandpiper [856]	-	Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642] Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309] Calidris acuminata Sharp-tailed Sandpiper [874] Calidris canutus Red Knot, Knot [855] Calidris ferruginea Curlew Sandpiper [856]	-	Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area Species or species habitat may occur within area Species or species habitat may occur within area Species or species habitat likely to occur within area Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Pandion haliaetus		
Osprey [952]		Species or species habitat likely to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Curlew Sandpiper [856]

Pectoral Sandpiper [858]

Haliaeetus leucogaster

White-bellied Sea-Eagle [943]

Calidris melanotos

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.

department for further information.		
Name		
Commonwealth Land -		
Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on	the EPRC Act - Threatened	
Name	Threatened	Type of Presence
Birds	THIOGEOFIOG	1) 0 0 1 1 0 0 1 0 0 0
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat likely to 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 likely to occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea		
	· · · · · · · · · · · · · · · · ·	

Critically Endangered

Species or species habitat likely to occur within area

Species or species habitat

Species or species habitat

may occur within area

likely to occur

Name	Threatened	Type of Presence
Merops ornatus		within area
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea		
Grey Wagtail [642]		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 likely to occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat may occur within area
Thinornis rubricollis		
Hooded Plover [59510]		Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Neerabup	WA
Neerabup	WA
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 Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		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

Name	Status	Type of Presence
Passer domesticus		
House Sparrow [405]		Species or species habitat
		likely to occur within area
Passer montanus		
Eurasian Tree Sparrow [406]		Species or species habitat
		likely to occur within area
Streptopelia chinensis		
Spotted Turtle-Dove [780]		Species or species habitat
Spotted Further-Dove [760]		likely to occur within area
		incery to occur within area
Streptopelia senegalensis		
Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat
		likely to occur within area
		•
Sturnus vulgaris		
Common Starling [389]		Species or species habitat
		likely to occur within area
Mammals		
Bos taurus		On a sing on an arise helitat
Domestic Cattle [16]		Species or species habitat
		likely to occur within area
Canis lupus familiaris		
Domestic Dog [82654]		Species or species habitat
Domestic Dog [62654]		likely to occur within area
		moly to cood! Within a ca
Felis catus		
Cat, House Cat, Domestic Cat [19]		Species or species habitat
		likely to occur within area
Funambulus pennantii		
Northern Palm Squirrel, Five-striped Palm Squirrel		Species or species habitat
[129]		likely to occur within area
Mus musculus		
		Species or species habitat
House Mouse [120]		Species or species habitat likely to occur within area
		incery to occur within area
Oryctolagus cuniculus		
Rabbit, European Rabbit [128]		Species or species habitat
		likely to occur within area
		•
Rattus norvegicus		
Brown Rat, Norway Rat [83]		Species or species habitat
		likely to occur within area
Dettus vettus		
Rattus rattus		On a sing an an arise helitat
Black Rat, Ship Rat [84]		Species or species habitat
		likely to occur within area
Vulpes vulpes		
Red Fox, Fox [18]		Species or species habitat
1100 1 00, 1 00 [10]		likely to occur within area
		,,
Plants		
Asparagus aethiopicus		
Asparagus Fern, Ground Asparagus, Basket Fern,		Species or species habitat
Sprengi's Fern, Bushy Asparagus, Emerald Asparagus	8	likely to occur within area
[62425]		
Asparagus asparagoides		Omenica
Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's		Species or species habitat
Smilax, Smilax Asparagus [22473]		likely to occur within area
Brachiaria mutica		
Para Grass [5879]		Species or species habitat
. 414 - 1400 [00/0]		may occur within area
		a, oodar maini aroa
Cenchrus ciliaris		
Buffel-grass, Black Buffel-grass [20213]		Species or species habitat
		may occur within

Name	Status	Type of Presence
Chrysanthamaidas manilifora		area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax Bi [2800]	room	Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Largeleaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild S [10892]	ed	Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Olea europaea Olive, Common Olive [9160]		Species or species habitat may occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]	9	Species or species habitat may occur within area
Protasparagus densiflorus Asparagus Fern, Plume Asparagus [5015]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Ka Weed [13665]	riba	Species or species habitat likely to occur within area
Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypres Salt Cedar [16018]	SS,	Species or species habitat likely to occur within area
Reptiles Hemidactylus frenatus		
Asian House Gecko [1708]		Species or species habitat likely to occur within area
Ramphotyphlops braminus Flowerpot Blind Snake, Brahminy Blind Snake, Ca Besi [1258]	cing	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

-31.62 115.74972

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.

235 MCLENNAN DRIVE NOWERGUP VEGETATION, FLORA AND FAUNA SURVEY

APPENDIX 4: FLORA SPECIES LIST



Family		Species
042	Zamiaceae	Macrozamia riedlei
044	Pinaceae	*Pinus pinaster
080	Lauraceae	Cassytha sp.
082	Araceae	*Zantedeschia aethiopica
109	Colchicaceae	Burchardia congesta
115	Orabidacaca	*Disa bracteata
115	Orchidaceae	Microtis media
124	Iridaceae	*Gladiolus caryophyllaceus
124	muaceae	Patersonia occidentalis
126	Xanthorrhoeaceae	Xanthorrhoea preissii
		Lomandra sp.
128	Acnaragacaaa	Sowerbaea laxiflora
120	Asparagaceae	Thysonatus sparteus?
		Thysonatus sp.
130	Hemerocallidaceae	Dianella revoluta?
		Anigozanthos humilis
		Anigozanthos manglesii
		Conostylis aculeata
138	Haemodoraceae	Conostylis aurea
		Conostylis setigera
		Haemodorum laxum
		Haemodorum spicatum
147	Dasypogonaceae	Calectasia narragara
		Desmocladus fasciculatus
159	Restionaceae	Desmocladus flexuosus
137	Restionaceae	Alexgeorgea nitens?
		Hypolaena exsulca
156	Cyperaceae	Mesomelaena pseudostygia
157	Anarthriaceae	Lyginia barbata
		*Aira caryophyllea
		*Avena barbata
163	Poaceae	*Briza maxima
		*Bromus sp.
		*Ehrharta calycina
		Banksia attenuata
		Banksia menziesii
		Hakea lissocarpha
		Hakea ruscifolia
175	Proteaceae	Hakea trifurcata
		Petrophile linearis
		Petrophile macrostachya
		Stirlingia latifolia
		Synaphea spinulosa



		Hibbertia huegelii
181	Dilleniaceae	Hibbertia hypericoides
	2 mornaceae	Hibbertia subvaginata
192	Crassulaceae	*Crassula sp.
172	Grassalaceae	Acacia huegelii
		Acacia pulchella
		Acacia saligna
		Acacia saligha Acacia willdenowiana
		Bossiaea eriocarpa
		Daviesia divaricata
201	Fabaceae	
201	Tabaceae	Gompholobium tomentosum
		Hardenbergia comptoniana
		Hovea trisperma
		Jacksonia sp.
		Jacksonia sternbergiana
		*Trifolium arvense
0.17		*Trifolium sp.
217	Casuarinaceae	Allocasuarina humilis
232	Oxalidaceae	*Oxalis pes-caprae
242	Euphorbiaceae	*Euphorbia terracina
274	Geraniacea	*Pelargonium capitatum
		Calothamnus quadrifidus
		Calytrix flavescens
		*Chamelaucium uncinatum
		Eremaea asterocarpa
281	Myrtaceae	Eremaea pauciflora
		Eucalyptus todtiana
		Kunzea glabrescens
		*Leptospermum laevigatum
		Regelia inops
300	Rutaceae	Philotheca spicata
311	Thymelaeaceae	Pimelea sulphurea
339	Loranthaceae	Nuytsia floribunda
346	Droseraceae	Drosera erythrorhiza
340	Dioseraceae	Drosera pallida
355	Caryonhyllacoao	*Petrorhagia dubia
ააა	Caryophyllaceae	*Silene gallica
357	Amaranthaceae	Ptilotus sp.
364	Aizoaceae	*Carpobrotus edulis
392	Primulaceae	*Lysimachia arvensis
		Astroloma pallidum
402	Friences	Conostephium pendulum
403	Ericaceae	Leucopogon polymorphus
		Lysinema pentapetalum



409	Rubiaceae	Opercularia vaginata
416	Convolvulaceae	*Cuscuta planiflora
428	Scrophulariaceae	*Dischisma capitatum
435	Orobanchaceae	*Orobanche minor
450	Campanulaceae	*Wahlenbergia capensis
		Stylidium brunonianum?
450	Ctulidiacocc	Stylidium calcaratum?
452	Stylidiaceae	Stylidium piliferum
		Stylidium schoenoides
458	Goodeniaceae	Scaevola sp.
		*Arctotheca calendula
		*Hypochaeris glabra
460	Astarasas	Podotheca gnaphalioides
460	Asteraceae	*Sonchus oleraceus
		*Urospermum picroides
		*Ursinia anthemoides
472	Araliaceae	Trachymene pilosa



APPENDIX 5: QUADRAT DATA



QUADRAT 1

Location: 235 McLennan Drive Nowergup, eastern side of property.

GPS: 381484 / 6500915 (MGA94, Zone 50)

Size: 10 by 10 metres

Soil: Brown-grey sand on surface **Vegetation Condition**: Very Good

Comments: Some previous vegetation disturbance particularly to understorey. Weeds. No signs of fire in recent

past.



Vegetation Description: Low woodland of *Banksia attenuata* over open to low open heath of *Hibbertia hypericoides*, *Eremaea pauciflora*, *Bossiaea eriocarpa*, *Acacia pulchella* and *Xanthorrhoea preissii* over *Desmocladus flexuosus*.

Species	Height (m)	% Cover
Acacia pulchella	1	2
*Avena barbata	0.6	+
Banksia attenuata	6	30
Bossiaea eriocarpa	0.4	2
*Briza maxima	0.6	+
Burchardia congesta	0.4	+
Cassytha sp.	climber	+
Conostephium pendulum	0.3	+
Conostylis aculeata	0.3	+
Conostylis setigera	0.1	+
Daviesia divaricata	0.3	+
Desmocladus flexuosus	0.2	15
*Ehrharta calycina	0.5	+
Eremaea pauciflora	1.2	10
*Gladiolus caryophyllaceus	1	+



Species	Height (m)	% Cover
Gompholobium tomentosum	0.3	+
Hibbertia hypericoides	0.8	60
Hovea trisperma	climber	+
*Hypochaeris glabra	0.2	+
Hypolaena exsulca	0.5	+
*Lysimachia arvensis	0.1	+
Microtis media	0.35	+
Patersonia occidentalis	0.6	+
Podotheca gnaphalioides	0.3	1
*Sonchus oleraceus	0.3	+
Stirlingia latifolia		
Thysonatus sparteus?	0.5	+
Trachymene pilosa	0.1	+
*Ursinia anthemoides	0.3	+
Xanthorrhoea preissii	1.5	2



QUADRAT 2

Location: 235 McLennan Drive Nowergup, eastern side of property.

GPS: 381548 / 6501015 (MGA94, Zone 50)

Size: 10 by 10 m

Soil: Brown-grey sand on surface **Vegetation Condition:** Very good

Comments: Some previous vegetation disturbance particularly to understorey. Weeds. No signs of fire in recent

past.



Vegetation Description: Low woodland of *Banksia menziesii* over open to low open heath of *Hibbertia hypericoides* and *Eremaea pauciflora* over *Desmocladus flexuosus*

Species	Height (m)	% Cover
Acacia pulchella	2	2
Banksia menziesii	5	20
Bossiaea eriocarpa	0.5	+
*Briza maxima		
*Bromus sp.	0.8	+
Burchardia congesta	0.6	+
Cassytha sp.	climber	+
Daviesia divaricata	1.5	+
Desmocladus flexuosus	0.15	20
*Ehrharta calycina	0.8	+
Eremaea pauciflora	1	20
*Gladiolus caryophyllaceus	0.5	+
Haemodorum spicatum	0.8	+
Hibbertia hypericoides	0.5	20
*Hypochaeris glabra	0.3	+
Lyginia barbata	0.4	+
*Lysimachia arvensis	0.1	+



Species	Height (m)	% Cover
Mesomelaena pseudostygia	0.5	+
Microtis media	0.4	+
Patersonia occidentalis	0.5	+
Petrophile linearis	0.4	+
Podotheca gnaphalioides	0.3	1
*Sonchus oleraceus	0.25	+
Sowerbaea laxiflora	0.3	+
Stirlingia latifolia	1	+
Trachymene pilosa	0.15	+
*Trifolium sp.	0.1	+
*Ursinia anthemoides	0.25	+
Xanthorrhoea preissii	1.5	+



APPENDIX 6: ASSESSMENT OF BANKSIA WOODLAND COMMUNITY AGAINST EPBC REFERRAL GUIDANCE



Table A6.1: Key Diagnostic Characteristics of Banksia Woodlands TEC

Key Diagnostic Characteristics	Information	Key Diagnostic Questions ¹	Response and Discussion
Location and physical environments	Bioregion	Is the proposal site within the Swan Coastal Plain IBRA bioregion (including Dandaragan plateau), or adjacent areas within the Jarrah Forest IBRA bioregion?	Yes. Swan Coastal Plain.
Soils and Landform	Soil type	Is the soil type consistent with where the Banksia Woodlands TEC may occur?	Yes. Spearwood System (Yellow sands).
	Location in the landscape, topography	Is the topography consistent with where the Banksia Woodlands TEC may occur?	Yes. Upper slopes of sand dune.
Structure	Tree composition, understorey composition, diversity, species	Is the structure consistent with the characteristics set out in the conservation advice?	Yes. Woodland of Banksia attenuata and Banksia menziesii with Eucalyptus todtiana over sclerophyllous shrubs and herbaceous ground layer of rushes, sedges, forbs and grasses.
Composition	Dominant tree species, emergent tree layer, understory	Is the composition consistent with the characteristics set out in the conservation advice?	Yes. Co-dominated by Banksia attenuata and Banksia menziesii with Eucalyptus todtiana over understorey of shrubs and herbs (diversity variable and partly dependent on condition). Many of the common shrub and herb species listed in the Approved Conservation Advice (Threatened Species Scientific Committee 2016) are present.

¹ As per Section 2.2 of the Approved Conservation Advice (Threatened Species Scientific Committee 2016).



Table A6.2: Additional Information to Characterise Banksia Woodlands TEC

Item	Information	Relevant Content ¹	Response and Discussion
Location and physical environments	Regional distribution and quality	Quantity/quality of vegetation community in, and in the region around, the site where the proposed action will occur	235 McLennan Drive is part of a large patch (potentially several hundred hectares) of remnant vegetation that includes Banksia woodland and variety of Eucalyptus woodlands and thus locally the quantity and quality of the vegetation community are likely good. 235 McLennan Drive has been mapped as Cottesloe Complex - Central and South (Heddle et al. 1980) and 46% of the pre-European extent of this complex within the City of Wanneroo still remains.
Patch condition	Condition thresholds	What is the patch condition using the condition categories outlined in Approved Conservation Advice ¹	Condition was only assessed within 235 McLennan Drive and varied from Degraded to Very Good.
Patch Size	Patch size in hectares	Is the patch size large enough to meet criteria in Approved Conservation Advice ¹	235 McLennan Drive is part of a large patch, the total size of which is unknown (potentially several hundred hectares). Within 235 McLennan Drive there are approximately 10 ha of remnant Banksia Woodland with more than 1 ha in Very Good and more
	Surrounding buffer	What is the size and vegetation community of the surrounding buffer? And what is the connectivity to the surrounding vegetation?	than 2 ha in Good condition. Consequently the patch size is large enough to meet the criteria. There is remnant vegetation on three sides of 235 McLennan Drive, comprising a mixture of Banksia woodland and Eucalyptus woodlands. The vegetation on 235 McLennan Drive is part of a remnant vegetation corridor connecting State Forrest 65 (also a Bush Forever site) in the east to the Lake Nowergup Nature Reserve and the Neerabup National Park in the west.
Other condition considerations	Presence/abse nce and spread of <i>Phytophthora</i> <i>cinnamomi</i> (dieback)	If present, how much dieback exists and is the proposed action likely to spread dieback further? If not present, can its introduction be prevented?	The presence/absence of <i>Phytophthora cinnamomi</i> on 235 McLennan Drive has not been determined.
	Presence/abse nce weeds	Does the patch contain weeds? Which species are present and how can they be managed?	The most common weed species recorded on 235 McLennan Drive during the October 2016 reconnaissance were <i>Ehrharta calycina</i> , <i>Gladiolus caryophyllaceus</i> , <i>Briza maxima</i> , <i>Ursinia anthemoides</i> , <i>Hypocharis glabra</i> and <i>Arctotheca calendula</i> . Effective management of these species is unlikely to be feasible as they are widespread locally and regionally.
	Any other notable disturbance to the site where relevant (i.e. fragmentation, fire regimes, bare patches, erosion, feral animals)	What disturbance is present which may degrade the quality of the community or species? For any/each form of disturbance, what is the degree of the disturbance? Is there evidence of recruitment of key native plant species following disturbance?	Aerial photos of 235 McLennan Drive show varying degrees of disturbance from the start of available photography in 1960s. Aerial photos from 1970s show bare patches across the property. Clearing was subsequently undertaken for the orchard, residential dwellings, outbuildings, tracks, fence lines and firebreaks, resulting in fragmentation of the vegetation. There has been recruitment of native species in some of the disturbed areas. The property is currently used for horticulture and residential purposes, both of which may result in spread of weeds and disease. In the surrounding area, the vegetation community is subject to a range of disturbances related to urban and rural development and mining.



Item	Information	Relevant Content ¹	Response and Discussion
	Patch isolation	Is the patch connected to other areas of Banksia Woodland or is it isolated?	235 McLennan Drive forms part of a large patch of remnant vegetation some of which is Banksia woodland.
Sub- community and vegetation unit	Broad scale structural unit (Beard vegetation associations)	Provide the best corresponding Beard vegetation association (s).	Spearwood Vegetation Association 949 Low woodland; Banksia (based on 'Pre-European Vegetation - Western Australia' dataset in NRInfo online mapping by Department of Agriculture and Food).
	Floristic community types (Gibson et al., 1994; Keighery et al., 2008)	Provide the closest resemblance of floristic community type(s) with reference to those discussed in Appendix C2 of the Approved Conservation Advice.	Data available from site reconnaissance survey is not sufficient to statistically determine Floristic Community Type (FCT). FCT was inferred as mostly likely FCT 28 Spearwood <i>Banksia attenuata</i> or <i>Banksia attenuata</i> - <i>Eucalyptus woodlands</i> , however FCT 20a Banksia attenuata woodlands over species rich dense shrublands (TEC in WA, part of TEC under EPBC Act) and FCT 24 Northern Spearwood shrublands and woodlands (P3 in WA, part of TEC under EPBC Act) could not be ruled out on the basis of the available information.
	Western Australian ecological community listing	Is this ecological community listed in Western Australia?	FCT 28 is not listed as threatened in Western Australia, however Banksia Dominated Woodlands of the Swan Coastal Plain IBRA region that this FCT likely belongs to is listed as Priority 3.
Surveying	Timing of the surveying	Ideally surveys should be undertaken in spring with two sampling periods to capture early and late flowering species. When was sampling undertaken at the proposed site? Is there any reason why the vegetation community could not be readily identified (e.g. due to recent disturbance such as fire)?	One reconnaissance site visit was undertaken during spring (October 2016).

¹ Detailed guidance for each of these provided in Approved Conservation Advice (Threatened Species Scientific Committee 2016).



APPENDIX 7: OPPORTUNISTIC FAUNA RECORDS



Species	Notes
Bobtail (<i>Tiliqua rugose</i>)	Observed
Australian Raven (Corvus coronoides)	Observed
Galah (Eolophus roseicapilla)	Observed
Australian Magpie (Cracticus tibicen)	Observed
Australian Ringneck (Barnardius zonarius)	Observed
Cat (Felis catus)	Foot prints on sand
Other	Kangaroo/wallaby droppings and tracks
	Unidentified skink observed.
	Lizard diggings.
	Small mammal footprints on sand (mouse size).

