

Attachment 1: Detailed Flora Species Lists for the Currumbin Eco-Parkland

Native species:

	Botanical name:	Family name:	Common name:	Key below			CoGC
				EPBC	NCA	SLC	Priority
1	<i>Acacia bakeri</i>	Leguminosae	Marblewood				1
2	<i>Acacia disparrima</i> ssp. <i>disparrima</i>	Mimosaceae	Hickory Wattle				
3	<i>Acacia leiocalyx</i>	Mimosaceae	Black Wattle				
4	<i>Acacia longissima</i>	Leguminosae	Long-leaf Wattle				
5	<i>Acacia melanoxylon</i>	Mimosaceae	Black Wattle				
6	<i>Acianthus</i> sp. ind.	Orchidaceae	Mosquito Orchid			1	
7	<i>Ackama paniculosa</i> syn. <i>Caldcluvia</i>	Cunoniaceae	Rose-leaf Marara				
8	<i>Acmena smithii</i> n.l.f.	Myrtaceae	Creek Lily Pily				
9	<i>Acronychia bauerlenii</i>	Rutaceae	Byron Bay Acronychia				
10	<i>Acronychia imperforata</i>	Rutaceae	Beach Acronychia				
11	<i>Acronychia pubescens</i>	Rutaceae	Hairy Acronychia				
12	<i>Acrostichum speciosum</i>	Pteridaceae	Mangrove Fern			1	
13	<i>Actephila mooreana</i> syn. <i>A. lindleyi</i>	Euphorbiaceae	Actephila				
14	<i>Adiantum atroviride</i>	Pteridaceae	Common Maidenhair			1	
15	<i>Adiantum diaphanum</i>	Pteridaceae	Filmy Maidenhair			1	
16	<i>Adiantum hispidulum</i>	Pteridaceae	Rough Maidenhair			1	
17	<i>Adiantum formosum</i>	Pteridaceae	Giant Maidenhair			1	
18	<i>Alchornea ilicifolia</i>	Euphorbiaceae	Native Holly				
19	<i>Allocasuarina torulosa</i>	Casuarinaceae	Forest Oak				
20	<i>Alocasia brisbanensis</i>	Araceae	Cunjevoi				
21	<i>Alphitonia excelsa</i>	Rhamnaceae	Red Ash				
22	<i>Alpinia arundelliana</i>	Zingiberaceae	Small Native Ginger				
23	<i>Alpinia caerulea</i>	Zingiberaceae	Native Ginger				
24	<i>Alternanthera denticulata</i>	Amaranthaceae	Lesser Joyweed				
25	<i>Amyema cambagei</i>	Loranthaceae	She-oak Mistletoe				
26	<i>Amyema pendula</i>	Loranthaceae	Drooping Mistletoe				
27	<i>Amylothea dictyophleba</i>	Loranthaceae	Red-flowering Mistletoe				
28	<i>Aneilema acuminatum</i>	Commelinaceae	Native Wandering Jew				
29	<i>Aphananthe philippinensis</i>	Ulmaceae	Rough-leaved Elm				
30	<i>Araucaria cunninghamii</i>	Araucariaceae	Hoop Pine				

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
31	<i>Archidendron grandiflorum</i>	Mimosaceae	Pink Laceflower				
32	<i>Archidendron muellerianum</i>	Mimosaceae	Small-flower Laceflower				1
33	<i>Archirhodomyrtus beckleri</i>	Myrtaceae	Rose Myrtle				
34	<i>Archontophoenix cunninghamiana</i>	Arecaceae	Bangalow Palm				
35	<i>Argyrodendron trifoliolatum</i>	Sterculiaceae	White Booyong				
36	<i>Artanema fimbriatum</i>	Linderniaceae	Artanema				
37	<i>Arthropteris tenella</i>	Davalliaceae	Climbing Fern				
38	<i>Arytera distylis</i>	Sapindaceae	Twin-leaved Coogera				
39	<i>Arytera divaricata</i>	Sapindaceae	Coogera; Rose Tamarind				
40	<i>Asplenium attenuatum</i> var. <i>attenuatum</i>	Aspleniaceae	Walking Fern				
41	<i>Asplenium australasicum</i>	Aspleniaceae	Bird's Nest Fern				
42	<i>Astrotricha latifolia</i>	Araliaceae	Broad-leaf Star-hair				
43	<i>Austrocallerya megasperma</i>	Fabaceae	Native Wisteria				
44	<i>Austromyrtus dulcis</i>	Myrtaceae	Midyim				
45	<i>Austrosteenisia blackii</i> var. <i>blackii</i>	Fabaceae	Blood Vine				
46	<i>Avicennia marina</i> ssp. <i>australasica</i>	Avicenniaceae	Grey Mangrove				
47	<i>Azolla pinnata</i>	Azollaceae	Ferny Azolla				
48	<i>Backhousia myrtifolia</i>	Myrtaceae	Grey Myrtle				
49	<i>Bacopa monnieri</i>	Plantaginaceae	Bacopa				
50	<i>Baloghia inophylla</i>	Euphorbiaceae	Scrub Bloodwood				
51	<i>Baumea articulata</i>	Cyperaceae	Jointed Twigrush				
52	<i>Beilschmiedia obtusifolia</i>	Lauraceae	Blush Walnut				
53	<i>Benthamia alyxifolia</i>	Loranthaceae	Shiny-leaved Mistletoe				
54	<i>Blechnum cartilagineum</i>	Blechnaceae	Gristle Fern				
55	<i>Blechnum indicum</i>	Blechnaceae	Bungwall Fern			1	
56	<i>Blechnum neohollandicum</i> syn. <i>Doodia aspera</i>	Blechnaceae	Prickly Rasp Fern				
57	<i>Brachychiton acerifolius</i>	Sterculiaceae	Flame Tree			1	
58	<i>Breynia oblongifolia</i>	Euphorbiaceae	Coffee Bush				
59	<i>Bridelia exaltata</i>	Euphorbiaceae	Scrub Ironbark				
60	<i>Brunoniella australis</i>	Acanthaceae	Blue Trumpet				
61	<i>Bursaria spinosa</i>	Pittosporaceae	Prickly Box				
62	<i>Calamus muelleri</i>	Arecaceae	Wait-a-while				

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
63	<i>Callicarpa pedunculata</i>	Lamiaceae	Callicarpa				
64	<i>Calochlaena dubia</i>	Dicksoniaceae	Soft Bracken Fern				
65	<i>Capillipedium spicigerum</i>	Poaceae	Scented Top Grass				
66	<i>Capparis arborea</i>	Capparaceae	Brush Caper Berry				
67	<i>Carex hubbardii</i>	Cyperaceae	no common name				
68	<i>Carex breviculmis</i>	Cyperaceae	a Sedge				
69	<i>Carex polyantha</i>	Cyperaceae	a Sedge				
70	<i>Carissa ovata</i>	Apocynaceae	Carissa				
71	<i>Carronia multisepalea</i>	Menispermaceae	Carronia				
72	<i>Cassia marksiana</i>	Caesalpiniaceae	Brush Cassia		V		1
73	<i>Casuarina glauca</i>	Casuarinaceae	Swamp She-oak				
74	<i>Causonis clematidea</i> syn. <i>Cayratia</i>	Vitaceae	Slender Grape				
75	<i>Celastrus subspicata</i>	Celastraceae	Large-leaf Staff Vine				
76	<i>Centella asiatica</i>	Apiaceae	Gotu Kola				
77	<i>Centratherum riparium</i>	Asteraceae	no common name				
78	<i>Cheilanthes sieberi</i>	Schizaeaceae	Mulga Fern				
79	<i>Chiloglottis</i> sp. ind.	Orchidaceae				1	
80	<i>Christella dentata</i>	Thelypteridaceae	Binung				
81	<i>Cissus antarctica</i>	Vitaceae	Kangaroo Vine				
82	<i>Cissus hypoglauca</i>	Vitaceae	Native Grape				
83	<i>Clematicissus opaca</i>	Vitaceae	Small-leaf Water Vine				
84	<i>Clematis glycinoides</i>	Ranunculaceae	Forest Clematis				
85	<i>Clerodendrum floribundum</i>	Verbenaceae	Lolly Bush				
86	<i>Coelospermum paniculatum</i>	Rubiaceae	Coelospermum				
87	<i>Coleus australis</i>	Lamiaceae	Forest Plectranthus				
88	<i>Commelina diffusa</i>	Commelinaceae	Native Wandering Jew				
89	<i>Commersonia bartramia</i>	Byttneriaceae	Brown Kurrajong				
90	<i>Cordyline congesta</i>	Laxmanniaceae	Palm Lily			1	
91	<i>Cordyline petiolaris</i>	Laxmanniaceae	Broad-leaved Palm Lily				
92	<i>Cordyline rubra</i>	Laxmanniaceae	Small Palm Lily				
93	<i>Corymbia henryii</i>	Myrtaceae	Large-leaved Spotted Gum				
94	<i>Corymbia intermedia</i>	Myrtaceae	Pink Bloodwood				

Native species cont'd:

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95	<i>Crinum pedunculatum</i>	Liliaceae	River Lily				
96	<i>Croton verreauxii</i>	Euphorbiaceae	Green Native Cascarilla				
97	<i>Cryptocarya glaucescens</i>	Lauraceae	Jackwood				
98	<i>Cryptocarya laevigata</i>	Lauraceae	Glossy Laurel				
99	<i>Cryptocarya microneura</i>	Lauraceae	Brown Jack				
100	<i>Cryptocarya obovata</i>	Lauraceae	White Walnut; Pepperberry				
101	<i>Cryptocarya triplinervis</i> var. <i>pubens</i>	Lauraceae	Hairy Three-veined Laurel				
102	<i>Cryptocarya triplinervis</i> var. <i>triplinervis</i>	Lauraceae	Three-veined Laurel				
103	<i>Cryptostylis subulata</i>	Orchidaceae	Large Tongue Orchid			1	
104	<i>Cupaniopsis anacardioides</i>	Sapindaceae	Tuckeroo				
105	<i>Cupaniopsis newmanii</i>	Sapindaceae	Long-leaved Tuckeroo		NT		1
106	<i>Cupaniopsis parvifolia</i>	Sapindaceae	Small-leaved Tuckeroo				
107	<i>Cyanthillium cinereum</i>	Asteraceae	Vernonia				
108	<i>Cyclophyllum longipetalum</i>	Rubiaceae	Large-leaved Canthium				
109	<i>Cymbidium madidum</i>	Orchidaceae	Tree Orchid			1	
110	<i>Cymbidium suave</i>	Orchidaceae	Green Tree Orchid			1	
111	<i>Cymbopogon refractus</i>	Poaceae	Barbed Wire Grass				
112	<i>Cyperus cyperoides</i>	Cyperaceae	no common name				
113	<i>Cyperus exaltatus</i>	Cyperaceae	Royal Sedge				
114	<i>Cyperus gracilis</i>	Cyperaceae	Whisker or Graceful Sedge				
115	<i>Cyperus polystachyos</i>	Cyperaceae	Common Sedge				
116	<i>Cyperus tetraphyllus</i>	Cyperaceae	no common name				
117	<i>Davallia pyxidata</i>	Davalliaceae	Hare's Foot Fern				
118	<i>Daviesia arborea</i>	Fabaceae	Tree Bitter-Pea				
119	<i>Decaspermum humile</i>	Myrtaceae	Silky Myrtle				
120	<i>Dendrobium aemulum</i>	Orchidaceae	Brush Box Orchid			1	
121	<i>Dendrobium linguiforme</i>	Orchidaceae	Tongue or Tick Orchid			1	
122	<i>Dendrophthoe glabrescens</i>	Loranthaceae	Orange-flowered Mistletoe				
123	<i>Denhamia celastroides</i>	Celastraceae	Denhamia				
124	<i>Desmodium brachypodum</i>	Fabaceae	Large Tick-trefoil				
125	<i>Desmodium gunnii</i>	Fabaceae	Slender Tick Trefoil				
126	<i>Desmodium heterocarpon</i>	Fabaceae	Hairy Tick Trefoil				

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
127	<i>Desmodium rhytidophyllum</i>	Fabaceae	Rusty Tick Trefoil				
128	<i>Desmodium varians</i>	Fabaceae	Tick-trefoil				
129	<i>Dianella caerulea</i>	Hemerocallidaceae	Blueberry Lily				
130	<i>Dianella longifolia</i>	Hemerocallidaceae	Long-leaved Flax Lily				
131	<i>Digitaria parviflora</i>	Poaceae	Digitaria				
132	<i>Dioscorea transversa</i>	Dioscoreaceae	Native Yam				
133	<i>Diospyros fasciculosa</i>	Ebenaceae	Grey Ebony				
134	<i>Diospyros pentamera</i>	Ebenaceae	Grey Persimmon				
135	<i>Diploglottis australis</i>	Sapindaceae	Native Tamarind				
136	<i>Dipodium variegatum</i>	Orchidaceae	Hyacinth Orchid			1	
137	<i>Dockrillia linguiformis</i>	Orchidaceae	Tongue Orchid			1	
138	<i>Dodonaea triquetra</i>	Sapindaceae	Hop Bush				
139	<i>Doodia australis</i> syn. <i>D. caudata</i>	Blechnaceae	Small Rasp Fern			1	
140	<i>Drypetes deplanchei</i>	Euphorbiaceae	Yellow Tulip				
141	<i>Duboisia myoporoides</i>	Solanaceae	Duboisia				
142	<i>Dysoxylum mollissimum</i> ssp. <i>molle</i>	Meliaceae	Red Bean				
143	<i>Dysoxylum rufum</i>	Meliaceae	Hairy Rosewood				
144	<i>Echinostephia aculeata</i>	Menispermaceae	Prickly Tape Vine				
145	<i>Einadia hastata</i>	Chenopodiaceae	Red-berry Saltbush				
146	<i>Elaeocarpus grandis</i>	Elaeocarpaceae	Blue Quandong				
147	<i>Elaeocarpus obovatus</i>	Elaeocarpaceae	Hard Quandong				
148	<i>Elattostachys nervosa</i>	Sapindaceae	Beetroot				
149	<i>Embelia australiana</i>	Myrsinaceae	Embelia				
150	<i>Endiandra discolor</i>	Lauraceae	Rose Walnut				
151	<i>Endiandra globosa</i>	Lauraceae	Black Walnut		NT		1
152	<i>Endiandra hayesii</i>	Lauraceae	Rusty Rose Walnut	V	V		1
153	<i>Endiandra muelleri</i> ssp. <i>bracteata</i>	Lauraceae	Northern Rose Walnut				1
154	<i>Entolasia marginata</i>	Poaceae	Bordered Panic				
155	<i>Entolasia stricta</i>	Poaceae	Wiry Panic				
156	<i>Erythrorchis cassythoides</i>	Orchidaceae	Climbing Orchid			1	
157	<i>Eucalyptus acmenoides</i>	Myrtaceae	White Mahogany				
158	<i>Eucalyptus carnea</i>	Myrtaceae	Broad-leaved White Mahogany				

Native species cont'd:

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159	<i>Eucalyptus fibrosa</i> ssp. <i>fibrosa</i>	Myrtaceae	Broad-leaved Red Ironbark				
160	<i>Eucalyptus grandis</i>	Myrtaceae	Flooded Gum				
161	<i>Eucalyptus microcorys</i>	Myrtaceae	Tallowwood				
162	<i>Eucalyptus pilularis</i>	Myrtaceae	Blackbutt				
163	<i>Eucalyptus propinqua</i>	Myrtaceae	Grey Gum				
164	<i>Eucalyptus resinifera</i>	Myrtaceae	Red Mahogany				
165	<i>Eucalyptus robusta</i>	Myrtaceae	Swamp Mahogany				
166	<i>Eucalyptus robusta</i> X <i>tereticornis</i>	Myrtaceae	Coastal Mahogany				
167	<i>Eucalyptus siderophloia</i>	Myrtaceae	Northern Grey Ironbark				
168	<i>Eucalyptus tereticornis</i>	Myrtaceae	Forest Red Gum				
169	<i>Euchiton sphaericus</i>	Asteraceae	Narrow-leaved Cudweed				
170	<i>Eupomatia bennettii</i>	Eupomatiaceae	Small Bolwarra				
171	<i>Eupomatia laurina</i>	Eupomatiaceae	Bolwarra				
172	<i>Euroschinus falcatus</i>	Anacardiaceae	Pink Poplar, Ribbonwood				
173	<i>Eustrephus latifolius</i>	Hemerocallidaceae	Wombat Berry				
174	<i>Ficus coronata</i>	Moraceae	Creek Sandpaper Fig				
175	<i>Ficus fraseri</i>	Moraceae	Sandpaper Fig				
176	<i>Ficus macrophylla</i>	Moraceae	Moreton Bay Fig				
177	<i>Ficus obliqua</i>	Moraceae	Small-leaved Fig				
178	<i>Ficus rubiginosa</i> forma <i>glabrescens</i>	Moraceae	Rusty Fig				
179	<i>Ficus virens</i> var. <i>sublanceolata</i>	Moraceae	White Fig				
180	<i>Ficus watkinsiana</i>	Moraceae	Strangler Fig				
181	<i>Fimbristylis ferruginea</i>	Cyperaceae	Fringe Sedge				
182	<i>Flagellaria indica</i>	Flagellariaceae	Whip Vine				
183	<i>Flindersia australis</i>	Rutaceae	Qld Teak				
184	<i>Flindersia bennettii</i>	Rutaceae	Bennett's Ash				
185	<i>Flindersia schottiana</i>	Rutaceae	Cudjerie				
186	<i>Gahnia aspera</i>	Cyperaceae	Sword Grass				
187	<i>Geitonoplesium cymosum</i>	Hemerocallidaceae	Scrambling Lily				
188	<i>Glochidion ferdinandi</i> var. <i>ferdinandi</i>	Euphorbiaceae	Cheese Tree				
189	<i>Glochidion ferdinandi</i> var. <i>pubens</i>	Euphorbiaceae	Hairy Cheese Tree				
190	<i>Glochidion sumatranum</i>	Euphorbiaceae	Umbrella Cheese Tree				

Native species cont'd:

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191	<i>Glossocardia bidens</i>	Asteraceae	Native Cobbler's Pegs				
192	<i>Glycine clandestina</i>	Fabaceae	Brush Glycine				
193	<i>Glycine microphylla</i>	Fabaceae	Brush Glycine				
194	<i>Gmelina leichhardtii</i>	Verbenaceae	White Beech				
195	<i>Gonocarpus chinensis</i> ssp. <i>verrucosus</i>	Haloragaceae	no common name				
196	<i>Goodenia rotundifolia</i>	Goodeniaceae	Star Goodenia				
197	<i>Gossia hillii</i>	Myrtaceae	Scaly Myrtle	CE	CR		1
198	<i>Grevillea robusta</i>	Proteaceae	Silky Oak				
199	<i>Guioa semiglauca</i>	Sapindaceae	Guioa				
200	<i>Gymnostachys anceps</i>	Araceae	Settler's Flax				
201	<i>Gynochthodes jasminoides</i>	Rubiaceae	Morinda				
202	<i>Hakea florulenta</i>	Proteaceae	Forest Hakea				
203	<i>Hardenbergia violacea</i>	Fabaceae	Native Sarsparilla				
204	<i>Harpullia pendula</i>	Sapindaceae	Tulip Wood				
205	<i>Hedraianthera porphyropetala</i>	Celastraceae	Hedraianthera				
206	<i>Hibbertia aspera</i>	Dilleniaceae	a Guinea Flower				
207	<i>Hibbertia dentata</i>	Dilleniaceae	Trailing Guinea Flower				
208	<i>Hibbertia scandens</i>	Dilleniaceae	Snake Vine				
209	<i>Hibbertia vestita</i>	Dilleniaceae	Small-leaf Guinea Bush				
210	<i>Hibiscus splendens</i>	Malvaceae	Pink Hibiscus				
211	<i>Hippocratea barbata</i>	Celastraceae	Knot Vine				
212	<i>Hodgkinsonia ovatiflora</i>	Rubiaceae	Golden Ash				
213	<i>Homalanthus populifolius</i>	Euphorbiaceae	Bleeding Heart				
214	<i>Hovea acutifolia</i>	Fabaceae	Purple Pea				
215	<i>Hoya australis</i>	Apocynaceae	Native Hoya				
216	<i>Huberantha nitidissima</i> syn. <i>Polyalthia</i>	Annonaceae	Canary Beech				
217	<i>Hydrocotyle acutiflora</i>	Apiaceae	Stinking Pennywort				
218	<i>Hydrocotyle laxiflora</i>	Apiaceae	Stinking Pennywort				
219	<i>Hydrocotyle tripartita</i>	Apiaceae	Small-leaved Pennywort				
220	<i>Hymenosporum flavum</i>	Pittosporaceae	Native Frangipani				
221	<i>Hypericum gramineum</i>	Clusiaceae	Native St. John's Wort				
222	<i>Hypolepis muelleri</i>	Dennstaedtiaceae	Harsh Ground-fern				

Native species cont'd:

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223	<i>Imperata cylindrica</i>	Poaceae	Blady Grass				
224	<i>Indigofera australis</i>	Fabaceae	Native Indigo				
225	<i>Ipomoea plebeia</i>	Convolvulaceae	Bellvine				
226	<i>Jagera pseudorhus</i>	Sapindaceae	Foambark				
227	<i>Jasminum simplicifolium</i>	Oleaceae	Native Jasmine				
228	<i>Juncus continuus</i>	Juncaceae	no common name				
229	<i>Juncus prismatocarpus</i>	Juncaceae	Branching Rush				
230	<i>Juncus usitatus</i>	Juncaceae	Common Rush				
231	<i>Karrabina benthamiana</i>	Cunoniaceae	Red Carabeen				
232	<i>Lagenophora gracilis</i>	Asteraceae	no common name				
233	<i>Lastreopsis decomposita</i>	Dryopteridaceae	Trim Shield Fern			1	
234	<i>Lastreopsis marginans</i>	Dryopteridaceae	Glossy Shield Fern			1	
235	<i>Leersia hexandra</i>	Poaceae	Swamp Ricegrass				
236	<i>Leichhardtia coronata</i>	Apocynaceae	Slender Milk Vine		V		1
237	<i>Leichhardtia longiloba</i>	Apocynaceae	Slender Marsdenia	V	V		1
238	<i>Leichhardtia rostrata</i>	Apocynaceae	Common Milk Vine				
239	<i>Lepiderema pulchella</i>	Sapindaceae	Fine-leaved Tuckeroo		V		1
240	<i>Lepidosperma laterale</i>	Cyperaceae	Tailed Sword-sedge				
241	<i>Lepironia articulata</i>	Cyperaceae	Aquatic Sedge				
242	<i>Litsea reticulata</i>	Lauraceae	Bolly Gum				
243	<i>Livistona australis</i>	Arecaceae	Cabbage Tree Palm			1	
244	<i>Lobelia gibbosa</i>	Campanulaceae	Tall Lobelia			1	
245	<i>Lobelia purpurascens</i>	Campanulaceae	White Root			1	
246	<i>Lobelia trigonocaulis</i>	Campanulaceae	Forest Lobelia			1	
247	<i>Lomandra confertifolia</i> ssp. <i>pallida</i>	Laxmanniaceae	no common name				
248	<i>Lomandra hystrix</i>	Laxmanniaceae	Creek Mat Rush				
249	<i>Lomandra laxa</i>	Laxmanniaceae	Mat Rush				
250	<i>Lomandra longifolia</i>	Laxmanniaceae	Mat Rush				
251	<i>Lomandra multiflora</i>	Laxmanniaceae	Many-flowered Mat Rush				
252	<i>Lomatia silaifolia</i>	Proteaceae	Crinkle Bush				
253	<i>Lophostemon confertus</i>	Myrtaceae	Brush Box				
254	<i>Lophostemon suaveolens</i>	Myrtaceae	Swamp Turpentine				

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255	<i>Ludwigia octovalvis</i>	Onagraceae	Willow Primrose				
256	<i>Ludwigia peploides</i>	Onagraceae	Water Primrose				
257	<i>Lygodium microphyllum</i>	Schizaeaceae	Climbing Maidenhair				
258	<i>Lythrum hyssopifolia</i>	Lythraceae	Lesser Loosestrife				
259	<i>Macadamia integrifolia</i>	Proteaceae	Queensland Nut	V	V		1
260	<i>Macadamia tetraphylla</i>	Proteaceae	Macadamia Nut	V	V		1
261	<i>Macaranga tanarius</i>	Euphorbiaceae	Macaranga				
262	<i>Maclura cochinchinensis</i>	Moraceae	Cockspur Thorn				
263	<i>Mallotus discolor</i>	Euphorbiaceae	White Kamala				
264	<i>Mallotus philippensis</i>	Euphorbiaceae	Red Kamala				
265	<i>Medicosma cunninghamii</i>	Rutaceae	Pinkheart				
266	<i>Meiogyne stenopetala</i> ssp. <i>stenopetala</i>	Annonaceae	Fissistigma				
267	<i>Melaleuca quinquenervia</i>	Myrtaceae	Broad-leaf Paperbark				
268	<i>Melaleuca salicina</i>	Myrtaceae	White Bottlebrush				
269	<i>Melicope elleryana</i>	Rutaceae	Pink Euodia				
270	<i>Melodinus australis</i>	Apocynaceae	Southern Melodinus				
271	<i>Mezoneuron brachycarpum</i>	Caesalpinaceae	Corky Prickle Vine				
272	<i>Mezoneuron scortechinii</i>	Caesalpinaceae	Prickle Vine				
273	<i>Microlaena stipoides</i>	Poaceae	Weeping Grass				
274	<i>Microtis parviflora</i>	Orchidaceae	Slender Onion Orchid			1	
275	<i>Mischocarpus pyriformis</i>	Sapindaceae	Yellow Pear-fruit				
276	<i>Mucuna gigantea</i>	Fabaceae	Burny Bean				
277	<i>Murdannia graminea</i>	Commelinaceae	Slug Herb				
278	<i>Myrsine angusta</i>	Myrsinaceae	no common name				
279	<i>Myrsine howittiana</i>	Myrsinaceae	Brush Muttonwood				
280	<i>Myrsine variabilis</i>	Myrsinaceae	Muttonwood				
281	<i>Neolitsea dealbata</i>	Lauraceae	White Bolly Gum				
282	<i>Notelaea longifolia</i>	Oleaceae	Large Mock-olive				
283	<i>Notothixos incanus</i>	Viscaceae	Downy Mistletoe				
284	<i>Notothixos subaureus</i>	Viscaceae	Golden Mistletoe				
285	<i>Olea paniculata</i>	Oleaceae	Native Olive				
286	<i>Olearia nernstii</i>	Asteraceae	Bush Daisy				

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
287	<i>Ophioglossum pendulum</i>	Ophioglossaceae	Ribbon Fern			1	
288	<i>Oplismenus aemulus</i>	Poaceae	Creeping Beard Grass				
289	<i>Oplismenus imbecillis</i>	Poaceae	Pademelon Grass				
290	<i>Oplismenus mollis</i>	Poaceae	Rainforest Beard Grass				
291	<i>Ottochloa gracillima</i>	Poaceae	Graceful Grass				
292	<i>Ozothamnus diosmifolius</i>	Asteraceae	Sago Flower				
293	<i>Palmeria racemosa</i> syn. <i>P. scandens</i>	Monimiaceae	Anchor Vine				
294	<i>Pandorea jasminoides</i>	Bignoniaceae	Bower of Beauty				
295	<i>Pandorea pandorana</i> ssp. <i>pandorana</i>	Bignoniaceae	Wonga Vine				
296	<i>Panicum simile</i>	Poaceae	Two-colour Panic				
297	<i>Pararchidendron pruinatum</i>	Mimosaceae	Snow Wood				
298	<i>Pararistolochia praevenosa</i>	Aristolochiaceae	Bird-wing Butterfly Vine		NT		1
299	<i>Parsonsia lanceolata</i>	Apocynaceae	Rough Silkpod				
300	<i>Parsonsia latifolia</i>	Apocynaceae	Milky Silkpod				
301	<i>Parsonsia longipetiolata</i>	Apocynaceae	Green-leaved Silkpod				
302	<i>Parsonsia straminea</i>	Apocynaceae	Monkey Rope Vine				
303	<i>Paspalidium distans</i>	Poaceae	Watercrown Grass				
304	<i>Passiflora herbertiana</i>	Passifloraceae	Native Passion Vine				
305	<i>Pentaceras australis</i>	Rutaceae	Penta Ash				
306	<i>Peperomia leptostachya</i>	Peperomiaceae	no common name				
307	<i>Peristeranthus hillii</i>	Orchidaceae	Drooping Tree Orchid			1	
308	<i>Persicaria attenuata</i>	Polygonaceae	Smartweed				
309	<i>Persicaria hydropiper</i>	Polygonaceae	Water Pepper				
310	<i>Persicaria lapathifolium</i>	Polygonaceae	Pale Knotweed				
311	<i>Persicaria strigosa</i>	Polygonaceae	Spotted Knotweed				
312	<i>Persoonia adenantha</i>	Proteaceae	Southern Coastal Geebung				
313	<i>Philydrum lanuginosum</i>	Philydraceae	Woolly Frogmouth				
314	<i>Phragmites australis</i>	Gramineae	Common Reed				
315	<i>Phyllanthus virgatus</i>	Phyllanthaceae	Common Phyllanthus				
316	<i>Picris angustifolia</i> ssp. <i>carolorum-henricorum</i>	Asteraceae	Hawkweed				
317	<i>Pigea stellarioides</i>	Violaceae	Orange Spade Flower				
318	<i>Pilidiostigma glabrum</i>	Myrtaceae	Plum Myrtle				

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
319	<i>Pimelea altior</i>	Thymelaeaceae	Short-leaved Riceflower				
320	<i>Pittosporum multiflorum</i>	Pittosporaceae	Orange Thorn				
321	<i>Pittosporum revolutum</i>	Pittosporaceae	Hairy Pittosporum				
322	<i>Pittosporum undulatum</i>	Pittosporaceae	Native Daphne				
323	<i>Planchonella australis</i>	Sapotaceae	Black Apple				
324	<i>Planchonella chartacea</i>	Sapotaceae	Thin-leaved Condoo				
325	<i>Planchonella pohlmanniana</i>	Sapotaceae	Yellow Boxwood				
326	<i>Platynerium bifurcatum</i>	Polypodiaceae	Elkhorn Fern			1	
327	<i>Platynerium superbum</i>	Polypodiaceae	Staghorn Fern			1	
328	<i>Plectorrhiza tridentata</i>	Orchidaceae	Tangle Orchid			1	
329	<i>Pleioloma queenslandica</i>	Sapotaceae	Blush Coondoo				
330	<i>Polyscias elegans</i>	Araliaceae	Celerywood				
331	<i>Poranthera microphylla</i>	Euphorbiaceae	Small Poranthera				
332	<i>Pothos longipes</i>	Araceae	Pothos				
333	<i>Pseudovanilla foliata</i>	Orchidaceae	Giant Climbing Orchid			1	
334	<i>Pseuderanthemum variabile</i>	Acanthaceae	Pastel Flower				
335	<i>Pseudoweinmannia lachnocarpa</i>	Cunoniaceae	Marara				
336	<i>Psilotum nudum</i>	Psilotaceae	Skeleton Fork-fern			1	
337	<i>Psychotria loniceroides</i>	Rubiaceae	Hairy Psychotria				
338	<i>Psydrax lamprophylla</i>	Rubiaceae	Large-leaved Canthium				
339	<i>Pteridium esculentum</i>	Dennstaedtiaceae	Common Bracken Fern				
340	<i>Pteris tremula</i>	Pteridaceae	no common name			1	
341	<i>Pterostylis nutans</i>	Orchidaceae	Nodding Greenhood			1	
342	<i>Pultenaea retusa</i>	Fabaceae	Swamp Pea Bush				
343	<i>Pyrrosia confluens</i>	Polypodiaceae	Robber Fern			1	
344	<i>Pyrrosia rupestris</i>	Polypodiaceae	Rock Felt-fern			1	
345	<i>Quintinia verdonii</i>	Escalloniaceae	Grey Possumwood				
346	<i>Randia moorei</i>	Rubiaceae	Spiny Gardenia	E	E		1
347	<i>Ranunculus inundatus</i>	Ranunculaceae	River Buttercup				
348	<i>Rhodamnia maideniana</i>	Myrtaceae	Smooth Scrub Turpentine	CE	CR		1
349	<i>Rhodamnia rubescens</i>	Myrtaceae	Scrub Turpentine	CE	CR		1
350	<i>Rhodomyrtus psidioides</i>	Myrtaceae	Native Guava	CE	CR		1

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
351	<i>Ripogonum album</i>	Ripogonaceae	White Supplejack				
352	<i>Rubus moluccanus</i> var. <i>moluccanus</i>	Rosaceae	Molucca Raspberry				
353	<i>Rubus moluccanus</i> var. <i>trilobus</i>	Rosaceae	Molucca Bramble				
354	<i>Rubus parvifolius</i>	Rosaceae	Small-leaf Bramble				
355	<i>Rubus rosifolius</i>	Rosaceae	Rose-leaf Bramble				
356	<i>Rumex brownii</i>	Polygonaceae	Swamp Dock				
357	<i>Sarcopetalum harveyanum</i>	Menispermaceae	Pearl Vine				
358	<i>Sarcopteryx stipata</i>	Sapindaceae	Steelwood				
359	<i>Schizaea bifida</i>	Schizaeaceae	Forked Comb-fern				
360	<i>Schizomeria ovata</i>	Cunoniaceae	Crab Apple				
361	<i>Schoenoplectiella mucronata</i>	Cyperaceae	Triangular Club-rush				
362	<i>Schoenoplectus tabernaemontani</i>	Cyperaceae	River Clubrush				
363	<i>Schoenus apongon</i> var. <i>apogon</i>	Cyperaceae	a sedge				
364	<i>Scleria mackaviensis</i>	Cyperaceae	Rasp-leaved Sedge				
365	<i>Secamone elliptica</i>	Asclepiadaceae	Corky Milk-vine				
366	<i>Sigesbeckia orientalis</i>	Asteraceae	Indian Weed				
367	<i>Siphonodon australis</i>	Celastraceae	Ivorywood				
368	<i>Sloanea australis</i> ssp. <i>australis</i>	Elaeocarpaceae	Maiden's Blush				
369	<i>Sloanea woollsii</i>	Elaeocarpaceae	Yellow Carabeen				
370	<i>Smilax australis</i>	Smilacaceae	Barbed-wire Vine				
371	<i>Smilax glycyphylla</i>	Smilacaceae	Sweet Sarsparilla				
372	<i>Smilax</i> sp. nov	Smilacaceae	Barbed-wire Vine				
373	<i>Solanum americanum</i>	Solanaceae	Glossy Nightshade				
374	<i>Solanum stelligerum</i>	Solanaceae	Devil's Needles				
375	<i>Soloni involuta</i> syn. <i>Derris</i>	Fabaceae	Native Derris				
376	<i>Sparganium subglobosum</i>	Typhaceae	Floating Burr-reed				
377	<i>Sphaeropteris australis</i> syn. <i>Cyathea leichhardtii</i>	Cyatheaceae	Prickly Tree Fern				
378	<i>Sphaeropteris cooperi</i>	Cyatheaceae	Tree Fern				
379	<i>Stackhousia viminea</i>	Stackhousiaceae	no common name				
380	<i>Stenocarpus sinuatus</i>	Proteaceae	Firewheel Tree				
381	<i>Stephania japonica</i> var. <i>discolor</i>	Menispermaceae	Tape Vine				
382	<i>Sterculia quadrifida</i>	Sterculiaceae	Peanut Tree				

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
383	<i>Sticherus flabellatus</i> var. <i>flabellatus</i>	Gleicheniaceae	Umbrella Fern				
384	<i>Streblus brunonianus</i>	Moraceae	Whalebone Tree				
385	<i>Styphelia sieberi</i> syn. <i>Leucopogon juniperinus</i>	Epacridaceae	Prickly Heath				
386	<i>Suaeda australis</i>	Chenopodiaceae	Sea Blite				
387	<i>Swainsona galegifolia</i>	Fabaceae	Smooth Darling Pea				
388	<i>Synoum glandulosum</i>	Meliaceae	Scentless Rosewood				
389	<i>Syzygium luehmanni</i>	Myrtaceae	Riberry				
390	<i>Syzygium moorei</i>	Myrtaceae	Durobby	V	V		1
391	<i>Syzygium oleosum</i>	Myrtaceae	Blue Lily Pily				
392	<i>Tabernaemontana pandacacui</i>	Apocynaceae	Banana Bush				
393	<i>Taeniophyllum muelleri</i>	Orchidaceae	Chain Ribbon Root Orchid			1	
394	<i>Tephrosia rufula</i>	Fabaceae	no common name				
395	<i>Themeda triandra</i>	Poaceae	Kangaroo Grass				
396	<i>Thysanotus tuberosus</i>	Laxmanniaceae	Fringe-lily				
397	<i>Toechima dasyrrhache</i>	Sapindaceae	Blunt-leaved Steelwood				
398	<i>Toona ciliata</i>	Meliaceae	Red Cedar				
399	<i>Tragia novae-hollandiae</i>	Euphorbiaceae	Stinging Vine				
400	<i>Trema tomentosa</i>	Ulmaceae	Native Peach				
401	<i>Trichosanthes subvelutina</i>	Cucurbitaceae	Silky Cucumber				
402	<i>Triglochin striata</i>	Juncaginaceae	Streaked Arrow Grass				
403	<i>Tripladenia cunninghamii</i>	Colchicaceae	Kreysigia				
404	<i>Trochocarpa laurina</i>	Epacridaceae	Tree Heath				
405	<i>Trophis scandens</i> ssp. <i>scandens</i>	Moraceae	Burny Vine				
406	<i>Typha orientalis</i>	Typhaceae	Cumbungi				
407	<i>Veronica plebeia</i>	Scrophulariaceae	Creeping Speedwell				
408	<i>Viola hederacea</i>	Violaceae	Native Violet				
409	<i>Vitex lignum-vitae</i>	Verbenaceae	Satinwood				
410	<i>Wikstroemia indica</i>	Thymelaeaceae	Tie Bush				
411	<i>Wilkiea austroqueenslandica</i>	Monimiaceae	Smooth Wilkiea				
412	<i>Wilkiea huegeliana</i>	Monimiaceae	Tetra beech				
413	<i>Xanthorrhoea macronema</i>	Xanthorrhoeaceae	Bottlebrush Grass Tree			1	
414	<i>Xylosma terrae-reginae</i>	Flacourtiaceae	Xylosma				

Native species cont'd:

	Botanical name:	Family name:	Common name:	EPBC	NCA	SLC	CoGC Priority
415	<i>Youngia japonica</i>	Asteraceae	no common name				
416	<i>Zeuxine oblonga</i>	Orchidaceae	Hairy Jewel Orchid			1	1
417	<i>Zieria smithii</i>	Rutaceae	Sandfly Zieria				
418	<i>Zoyzia micrantha</i>	Poaceae	Prickly Couch				
				8	14	40	20

1730 species in CoGC therefore 418 = 24.2%

<https://www.goldcoast.qld.gov.au/Council-region/About-our-city/Environment-sustainability/About-our-environment/Native-plants> (accessed Nov22)

Non-native species:

	Botanical name:	Family name:	Common name:	Restricted*	Rank	Score	SEQEW**
1	<i>Agave sisalana</i>	Asparagaceae	Sisal	-	-	-	
2	<i>Ageratina adenophora</i>	Asteraceae	Crofton Weed	-	17	4.6	
3	<i>Ageratina riparia</i>	Asteraceae	Mist Flower	-	25	4.6	
4	<i>Ageratum houstonianum</i>	Asteraceae	Blue Billygoat Weed	-	115	3.8	
5	<i>Albizia lebbbeck</i>	Mimosaceae	Siris Tree	-	-	-	
6	<i>Alpinia caerulea</i> forma Atherton +	Zingiberaceae	Atherton Ginger	-	-	-	
7	<i>Ambrosia artemisiifolia</i>	Asteraceae	Annual Ragweed	C3	-	-	
8	<i>Andropogon virginicus</i>	Poaceae	Whiskey Grass	-	155	3.6	
9	<i>Annona senegalensis</i>	Annonaceae	Wild Custard Apple	-	-	-	
10	<i>Anredera cordifolia</i>	Basellaceae	Madeira Vine	C3	5	4.9	
11	<i>Apium leptophyllum</i>	Apiaceae	Slender Celery	-	-	-	
12	<i>Archontophoenix alexandrae</i> +	Arecaceae	Alexander Palm	-	-	-	
13	<i>Archontophoenix X</i>	Arecaceae	Alex/Bangalow hybrid	-	-	-	
14	<i>Ardisia crenata</i>	Myrsinaceae	China Bell	-	-	-	
15	<i>Asclepias curassavica</i>	Apocynaceae	Red-head Cotton Bush	-	126	3.6	
16	<i>Asparagus aethiopicus</i> 'Sprengeri'	Asparagaceae	Asparagus Fern	C3	23	4.5	
17	<i>Asparagus plumosus</i>	Asparagaceae	Ferny Asparagus	C3	57	4.1	
18	<i>Asparagus retrofractus</i>	Asparagaceae	Pom Pom Asparagus	-	-	-	
19	<i>Austromyrtus dulcis</i> +	Myrtaceae	Midyim	-	-	-	
20	<i>Axonopus compressus</i>	Poaceae	Broad-leaf Carpet Grass	-	113	3.6	
21	<i>Baccharis halimifolia</i>	Asteraceae	Groundsel	C3	2	4.8	
22	<i>Bauhinia galpinii</i>	Caesalpiniaceae	Butterfly Tree	-	-	-	

Non-native species cont'd:
SEQEW**

	Botanical name:	Family name:	Common name:	Restricted*	Rank	Score
23	<i>Bidens pilosa</i>	Asteraceae	Cobbler's Pegs	-	110	3.5
24	<i>Bougainvillea</i> sp. ind.	Nyctaginaceae	Bougainvillea	-	-	-
25	<i>Brachychiton discolor</i> +	Sterculiaceae	Lacebark	-	-	-
26	<i>Bryophyllum pinnatum</i>	Crassulaceae	Resurrection Plant	-	47	4.2
27	<i>Callisia repens</i>	Commelinaceae	Turtle Vine	-	-	-
28	<i>Capsicum annuum</i>	Solanaceae	Ornamental Chile	-	-	-
29	<i>Cardamine flexuosa</i>	Brassicaceae	Flickweed	-	-	-
30	<i>Carica papaya</i>	Caricaceae	Paw Paw	-	-	-
31	<i>Cedrela odorata</i>	Meliaceae	Cuban Cedar	-	-	-
32	<i>Celtis sinensis</i>	Ulmaceae	Chinese Elm	C3	7	4.9
33	<i>Centrosema molle</i>	Fabaceae	Spurred Butterfly Pea	-	-	-
34	<i>Cestrum parqui</i>	Solanaceae	Green Cestrum	-	59	3.9
35	<i>Chamaedorea sefrizii</i>	Arecaceae	Bamboo Palm	-	-	-
36	<i>Chloris gayana</i>	Poaceae	Rhodes Grass	-	46	4.3
37	<i>Chrysophyllum oliviforme</i>	Sapotaceae	Satin Leaf	-	-	-
38	<i>Cinnamomum camphora</i>	Lauraceae	Camphor Laurel	C3	8	4.8
39	<i>Cirsium vulgare</i>	Asteraceae	Spear Thistle	-	-	-
40	<i>Citrus limon</i>	Rutaceae	Wild Lemon	-	-	-
41	<i>Coffea arabica</i>	Rubiaceae	Coffee Tree	-	189	3.2
42	<i>Colocasia esculenta</i> CV#1	Araceae	Taro	-	-	-
43	<i>Colocasia esculenta</i> CV#2	Araceae	Taro	-	-	-
44	<i>Commelina benghalensis</i>	Commelinaceae	Hairy Wandering Jew	-	122	3.5
45	<i>Conyza bonariensis</i>	Asteraceae	Flax-leaf Fleabane	-	185	3.3
46	<i>Corymbia torelliana</i> +	Myrtaceae	Cadaghi	-	-	-
47	<i>Crassocephalum crepidioides</i>	Asteraceae	Thickhead	-	-	-
48	<i>Crotalaria pallida</i> var. <i>obovata</i>	Fabaceae	Rattlepod	-	-	-
49	<i>Cuphea carthagenensis</i>	Lythraceae	Columbian Waxweed	-	-	-
50	<i>Curculigo capitulata</i> +	Hypoxidaceae	Weevil Lily (Nth Qld)	-	-	-
51	<i>Cynodon dactylon</i>	Poaceae	Common Couch	-	99	3.6
52	<i>Cyperus involucratus</i>	Cyperaceae	Umbrella Sedge	-	-	-
53	<i>Cyperus rotundus</i>	Cyperaceae	Nut Grass	-	-	-
54	<i>Delonix regia</i>	Caesalpiniaceae	Royal Poinciana	-	-	-

Non-native species cont'd:

SEQEW**

	Botanical name:	Family name:	Common name:	Restricted*	Rank	Score
55	<i>Desmodium uncinatum</i>	Fabaceae	Silver-leaved Desmodium	-	64	4
56	<i>Dichorisandra thyrsiflora</i>	Commelinaceae	Blue Ginger	-	-	-
57	<i>Digitaria eriantha</i>	Poaceae	Pangola Grass	-	196	3.1
58	<i>Diospyros kaki</i>	Ebenaceae	Persimmon	-	-	-
59	<i>Dolichandra unguis-cati</i>	Bignoniaceae	Cat's-claw Creeper	C3	4	4.9
60	<i>Dracaena fragrans</i> 'Massangeana'	Agavaceae	Happy Plant; Corn Plant	-	-	-
61	<i>Eclipta prostrata</i>	Asteraceae	White Eclipta	-	-	-
62	<i>Emilia sonchifolia</i>	Asteraceae	Emilia	-	-	-
63	<i>Epidendrum ibaguense</i>	Orchidaceae	Crucifix Orchid	-	-	-
64	<i>Epipremnum pinnatum</i>	Araceae	Devil's Ivy	-	-	-
65	<i>Erythrina crista-galli</i>	Fabaceae	Cockscomb Coral Tree	-	169	3.5
66	<i>Eugenia uniflora</i>	Myrtaceae	Brazilian Cherry	-	118	3.5
67	<i>Ficus benjamina</i> 'Exotica'	Moraceae	Small-leaved Weeping Fig	-	-	-
68	<i>Ficus benjamina</i> +	Moraceae	Weeping Fig	-	-	-
69	<i>Ficus hillii</i> +	Moraceae	Hill's Fig	-	-	-
70	<i>Fraxinus excelsior</i>	Oleaceae	European Ash	-	-	-
71	<i>Fraxinus griffithii</i>	Oleaceae	Himalayan Cedar	-	-	-
72	<i>Gamochaeta coarctata</i>	Asteraceae	Cudweed	-	-	-
73	<i>Gomphocarpus fruticosus</i>	Apocynaceae	Narrow-leaf Cotton Bush	-	-	-
74	<i>Gomphocarpus physocarpus</i>	Apocynaceae	Balloon Cotton Bush	-	86	3.7
75	<i>Hedychium gardnerianum</i>	Zingiberaceae	Kahili Ginger	C3	171	3.6
76	<i>Heptapleurum actinophyllum</i> +	Araliaceae	Umbrella Tree	-	-	-
77	<i>Hypochoeris radicata</i>	Asteraceae	Flatweed	-	-	-
78	<i>Hypoestes phyllostachya</i>	Acanthaceae	Polka-dot Plant	-	172	3.5
79	<i>Inga edulis</i>	Fabaceae	Ice Cream Bean	-	-	-
80	<i>Ipomoea cairica</i>	Convolvulaceae	Five-leaf Morning Glory	-	28	4.4
81	<i>Ipomoea indica</i>	Convolvulaceae	Blue Morning Glory	-	40	4.3
82	<i>Jacaranda mimosifolia</i>	Bignoniaceae	Jacaranda	-	156	3.4
83	<i>Koelreuteria paniculata</i>	Sapindaceae	Golden Rain Tree	-	170	3.6
84	<i>Lagerstroemia indica</i>	Lythraceae	Crepe Myrtle	-	-	-
85	<i>Lantana camara</i>	Verbenaceae	Lantana	C3	1	5
86	<i>Lepidium bonariense</i>	Brassicaceae	Argentine Peppergrass	-	-	-

Non-native species cont'd:
SEQEW**

	Botanical name:	Family name:	Common name:	Restricted*	Rank	Score
87	<i>Libidibia ferrea</i> syn. <i>Caesalpinia</i>	Caesalpinaceae	Leopard Tree	-	-	-
88	<i>Ligustrum lucidum</i>	Oleaceae	Large-leaved Privet	C3	15	4.8
89	<i>Livistona chinensis</i>	Arecaceae	Chinese Fan Palm	-	-	-
90	<i>Lonicera japonica</i>	Caprifoliaceae	Japanese Honeysuckle	-	49	4.3
91	<i>Macroptilium atropurpureum</i>	Fabaceae	Siratro	-	51	4.2
92	<i>Macrotyloma axillare</i>	Fabaceae	Horse Gram	-	191	4.1
93	<i>Megathyrsus maximus</i> var. <i>maximus</i>	Poaceae	Guinea Grass	-	20	4.6
94	<i>Megathyrsus maximus</i> var. <i>pubiglumis</i>	Poaceae	Green Panic	-	-	-
95	<i>Melicope rubra</i> syn. <i>Evodiella muelleri</i> +	Rutaceae	Little Evodia	-	-	-
96	<i>Melinis minutiflora</i>	Poaceae	Molasses Grass	-	38	4.5
97	<i>Melinis repens</i>	Poaceae	Red Natal Grass	-	65	4.1
98	<i>Mentha sylvestris</i>	Labiataeae	English Horsemint	-	-	-
99	<i>Morus alba</i>	Moraceae	Mulberry	-	162	3.4
100	<i>Murraya koenigii</i>	Rutaceae	Curry Tree	-	-	-
101	<i>Murraya paniculata</i>	Rutaceae	Orange Jessamine	-	139	3.6
102	<i>Myriophyllum aquaticum</i>	Haloragaceae	Parrots Feather	-	69	4
103	<i>Nandina domestica</i> 'nana'	Berberidaceae	Dwarf Sacred Bamboo	-	-	-
104	<i>Neomarica gracilis</i>	Iridaceae	Walking Iris	-	-	-
105	<i>Neonotonia wightii</i>	Fabaceae	Velcro Vine	-	19	4.7
106	<i>Nephrolepis cordifolia</i>	Davalliaceae	Fishbone Fern	-	-	-
107	<i>Nephrolepis exaltata</i>	Davalliaceae	Boston Fern	-	-	-
108	<i>Nymphaea caerulea</i> ssp. <i>zanzibarensis</i>	Nymphaeaceae	Cape Waterlily	-	66	4
109	<i>Ochna serrulata</i>	Ochnaceae	Mickey Mouse Plant	-	22	4.5
110	<i>Oxalis corniculata</i>	Oxalidaceae	Yellow Wood-sorrel	-	-	-
111	<i>Oxalis corymbosa</i>	Oxalidaceae	Pink Shamrock	-	-	-
112	<i>Paspalum mandiocanum</i>	Poaceae	Broad-leaved Paspalum	-	72	4
113	<i>Passiflora coccinea</i>	Passifloraceae	Red Passion Flower	-	-	-
114	<i>Passiflora edulis</i>	Passifloraceae	Passionfruit	-	193	3.2
115	<i>Passiflora foetida</i>	Passifloraceae	Stinking Passion-flower	-	70	3.9
116	<i>Passiflora pallida</i>	Passifloraceae	Corky Passionfruit	-	-	-
117	<i>Passiflora suberosa</i> ssp. <i>litoralis</i>	Passifloraceae	Small Passionfruit	-	37	4.2
118	<i>Passiflora subpeltata</i>	Passifloraceae	White Passionflower	-	63	3.9

Non-native species cont'd:

SEQEW**

	Botanical name:	Family name:	Common name:	Restricted*	Rank	Score
119	<i>Pellaea viridis</i>	Sinopteridaceae	Green Cliff Brake	-	-	-
120	<i>Pennisetum clandestinum</i>	Poaceae	Kikuyu Grass	-	107	3.8
121	<i>Persea americana</i>	Lauraceae	Avocado	-	-	-
122	<i>Philodendron cordatum</i>	Araceae	Heart-leaf Philodendron	-	-	-
123	<i>Phoenix reclinata</i>	Arecaceae	Senegal Date Palm	-	-	-
124	<i>Phoenix roebelenii</i>	Arecaceae	Dwarf Date Palm	-	-	-
125	<i>Phyllanthus tenellus</i>	Phyllanthaceae	no common name	-	-	-
126	<i>Physalis peruviana</i>	Solanaceae	Cape Gooseberry	-	-	-
127	<i>Phytolacca octandra</i>	Phytolaccaceae	Inkweed	-	125	3.4
128	<i>Pinus elliottii</i>	Pinaceae	Slash Pine	-	44	4.3
129	<i>Plantago major</i>	Plantaginaceae	Cart-track Plantain	-	-	-
130	<i>Polygala paniculata</i>	Polygalaceae	Milkwort; Denco-root	-	-	-
131	<i>Polygonum aviculare</i>	Polygonaceae	Prostrate Knotweed	-	-	-
132	<i>Portulaca oleracea</i>	Portulacaceae	Pigweed	-	-	-
133	<i>Pothos aureus</i>	Araceae	Scindapsus	-	-	-
134	<i>Prunus persica</i>	Rosaceae	Peach	-	-	-
135	<i>Psidium cattleianum</i>	Myrtaceae	Cherry Guava	-	-	-
136	<i>Psidium guajava</i>	Myrtaceae	Yellow Guava	-	116	3.7
137	<i>Radermachera sinica</i>	Bignoniaceae	China Doll	-	-	-
138	<i>Raphiolepis indica</i>	Rosaceae	Indian Hawthorn	-	101	3.5
139	<i>Ricinus communis</i>	Euphorbiaceae	Castor Oil Plant	-	81	3.9
140	<i>Ruellia squarrosa</i>	Acanthaceae	Wild Petunia	-	-	-
141	<i>Salvia coccinea</i>	Lamiaceae	Red Salvia	-	114	4
142	<i>Salvinia molesta</i>	Salviniaceae	Salvinia	-	-	-
143	<i>Sambucus canadensis</i>	Sambucaceae	American Elder	-	173	3.4
144	<i>Sansevieria trifasciata</i>	Agavaceae	Mother-in-law's Tongue	-	195	3.1
145	<i>Schefflera aboricola</i>	Araliaceae	Dwarf Umbrella Tree	-	-	-
146	<i>Schinus terebinthifolius</i>	Anacardiaceae	Broad-leaved Pepper Tree	C3	9	4.8
147	<i>Schotia brachypetala</i>	Fabaceae	Drunken Parrot Tree	-	-	-
148	<i>Senecio madagascariensis</i>	Asteraceae	Fireweed	C3	82	3.8
149	<i>Senna pendula</i> var. <i>glabrata</i>	Caesalpinioideae	Winter Senna	-	45	4.2
150	<i>Senna septemtrionalis</i>	Caesalpinioideae	Brush Cassia	-	60	4

Non-native species cont'd:

SEQEW**

	Botanical name:	Family name:	Common name:	Restricted*	Rank	Score
151	<i>Setaria palmifolia</i>	Poaceae	Palm Grass	-	-	-
152	<i>Setaria sphacelata</i> var. <i>sericae</i>	Poaceae	Sth African Pigeon Grass	-	85	3.8
153	<i>Sida cordifolia</i>	Malvaceae	Flannel Weed	-	-	-
154	<i>Sida rhombifolia</i>	Malvaceae	Paddy's Lucerne	-	153	3.6
155	<i>Solanum capsicoides</i>	Solanaceae	Devil's Apple	-	-	-
156	<i>Solanum chrysotrichum</i>	Solanaceae	Giant Devil's Fig	-	135	3.6
157	<i>Solanum lycopersicum</i>	Solanaceae	Tomato	-	-	-
158	<i>Solanum mauritianum</i>	Solanaceae	Tobacco Weed	-	61	4
159	<i>Solanum pseudocapsicum</i>	Solanaceae	Jerusalem Cherry	-	-	-
160	<i>Solanum seafortianum</i>	Solanaceae	Climbing Nightshade	-	55	4
161	<i>Solanum torvum</i>	Solanaceae	Devil's Fig	-	93	3.9
162	<i>Soliva anthemifolia</i>	Asteraceae	Bindi-Eye	-	-	-
163	<i>Sonchus oleraceus</i>	Asteraceae	Milk Thistle	-	-	-
164	<i>Sorghum halepense</i>	Poaceae	Johnson Grass	-	-	-
165	<i>Spathodea campanulata</i>	Bignoniaceae	African Tulip Tree	C3	190	3.4
166	<i>Sphagneticola trilobata</i>	Asteraceae	Singapore Daisy	C3	16	4.6
167	<i>Sporobolus pyramidalis</i>	Poaceae	Giant Rat's-tail Grass	C3	24	4.8
168	<i>Strelitzia nicolai</i>	Strelitziaceae	Giant Bird-of-Paradise	-	-	-
169	<i>Stylosanthes scabra</i>	Fabaceae	Shrubby Stylo	-	121	4.3
170	<i>Syagrus romanzoffiana</i>	Arecaceae	Cocos Palm	-	92	3.9
171	<i>Symphyotrichum subulatum</i>	Asteraceae	Aster Weed	-	-	-
172	<i>Synedrella nodiflora</i>	Asteraceae	Cindarella Weed	-	-	-
173	<i>Syngonium podophyllum</i>	Araceae	Syngonium	-	-	-
174	<i>Tabebuia chrysotricha</i>	Bignoniaceae	Golden Trumpet Tree	-	-	-
175	<i>Tagetes minuta</i>	Asteraceae	Stinking Roger	-	176	3.3
176	<i>Tephrosia noctiflora</i>	Leguminosae	Petai Balong Kecil	-	-	-
177	<i>Tithonia diversifolia</i>	Asteraceae	Japanese Sunflower	-	84	3.9
178	<i>Toxicodendron succedaneum</i>	Anacardiaceae	Rhus	-	-	-
179	<i>Tradescantia fluminensis</i>	Commelinaceae	Wandering Jew	-	58	4.1
180	<i>Trifolium pratense</i>	Fabaceae	Red Clover	-	-	-
181	<i>Triumfetta rhomboidea</i>	Malvaceae	Chinese Burr	-	68	4
182	<i>Urena lobata</i>	Malvaceae	Caesar Weed	-	-	-

Non-native species cont'd:

SEQEW**

	Botanical name:	Family name:	Common name:	Restricted*	Rank	Score
183	<i>Verbena rigida</i>	Verbenaceae	Veined Verbena	-	-	-
184	<i>Viburnum odoratissimum</i> 'Emerald Lustre'	Adoxaceae	Emerald Lustre	-	-	-
185	<i>Vigna parkeri</i>	Fabaceae	Creeping Vigna	-	-	-
186	<i>Xanthium occidentale</i>	Asteraceae	Noogoora Burr	-	-	-
187	<i>Zephyranthes minuta</i>	Amaryllidaceae	Storm Lily	-	-	-

418 native species

187 non-native species

605 total species this survey

Key:

CV cultivar
n.l.f narrow leaf form
sp. ind. species indeterminate
sp. nov. new species

EPBC Threatened species listed in the National *Environment Protection and Biodiversity Conservation Act* 1999

NCA Threatened species listed in the State *Nature Conservation (Plants) Regulation* 2020

SLC Special Least Concern species listed in the State *Nature Conservation (Plants) Regulation* 2020

CoGC City of Gold Coast Priority Species

ssp. subspecies
syn. synonym
var. variety
+ alien native species (non-provenance native)

CE, CR Critically endangered
E Endangered
V Vulnerable
NT Near threatened

* Restricted plant under the *Biosecurity Act (Qld)* 2014 where Category 3 states: "the invasive plant must not be distributed either by sale or gift, or released into the environment"

<https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/weeds-diseases/controlling-weeds/laws>

(accessed Feb25)

** *SEQ Environmental Weeds Strategy* (August 2002), where:

Rank = rank of invasiveness using estimated residency years (since naturalisation/cultivation).

Score = based on expert panel assessed data of invasiveness, 5 = highest risk,

below 3 = invasiveness doubtful (Batianoff and Butler 2001)

https://www.daf.qld.gov.au/_data/assets/pdf_file/0008/64637/IPA-Assessment-Invasive-Plants.pdf

(accessed Feb25)

Notes: - This list is to be read in conjunction with the report: *Currumbin Eco-Parkland Ecological Study Version 4 January 2025 (MRA, GCB, DDW)*

- Not all non-native species are invasive. Weed priorities and control methods are addressed elsewhere.

Attachment 2: Detailed Fauna Species Lists for the Currumbin Eco-Parkland Site

Family	Genus	Species	Common Name	Status
LAND SNAILS				
HELICARIONIDAE	<i>Nitor</i>	<i>pudibunda</i>	Pink Glass snail	-
HELICARIONIDAE	<i>Stanisicaron</i>	<i>virens</i>	Fine-speckled Semi-slug	-
CAMAENIDAE	<i>Ramogenia</i>	<i>challengeri</i>	Challenger's Hairy Snail	-
CAMAENIDAE	<i>Sphaerospira</i>	<i>fraseri</i>	Fraser's Banded Snail	-
ATHORACOPHORIDAE	<i>Triboniophorus</i>	<i>graeffeii</i>	Red-triangle Slug	-
AQUATIC DECAPODS				
ATYIDAE	<i>Caradina</i>	<i>indistincta</i>	Indistinct Caradina	-
ATYIDAE	<i>Metapenaeus</i>	<i>macleayi</i>	School Prawn	-
ATYIDAE	<i>Paratya</i>	<i>australiense</i>	Australian Paratya	-
PARASTACIDAE	<i>Cherax</i>	<i>depressus</i>	Orange-fingered Crayfish	-
DRAGONFLIES and DAMSELFLIES				
LESTIDAE	<i>Austrolestes</i>	<i>leda</i>	Wandering Ringtail	-
ARGIOLESTIDAE	<i>Austroargiolestes</i>	<i>icteremeles</i>	Common Flatwing	-
COENAGRIONIDAE	<i>Agriocnemis</i>	<i>pygmaea</i>	Pygmy Wisp	-
COENAGRIONIDAE	<i>Argiocnemis</i>	<i>rubescens</i>	Red-tipped Shadefly	-
COENAGRIONIDAE	<i>Austroagrion</i>	<i>watsoni</i>	Eastern Billabongfly	-
COENAGRIONIDAE	<i>Ceragrion</i>	<i>aeruginosum</i>	Redtail	-
COENAGRIONIDAE	<i>Ischnura</i>	<i>aurora</i>	Aurora Bluetail	-
COENAGRIONIDAE	<i>Ischnura</i>	<i>heterosticta</i>	Common Bluetail	-
AESHNIDAE	<i>Adversaeschna</i>	<i>brevistyla</i>	Blue-spotted Hawker	-
AESHNIDAE	<i>Anax</i>	<i>papuensis</i>	Australian Emperor	-
GOMPHIDAE	<i>Austrogomphus</i>	<i>amphiclitus</i>	Pale Hunter	-
GOMPHIDAE	<i>Austrogomphus</i>	<i>ochraeus</i>	Jade Hunter	-
SYNTHEMISTIDAE	<i>Choristhemis</i>	<i>flavoterminalata</i>	Yellow-tipped Tigertail	-
CORDULIIDAE	<i>Hemicordulia</i>	<i>australiae</i>	Australian Emerald	-
CORDULIIDAE	<i>Hemicordulia</i>	<i>continentalis</i>	Fat-bellied Emerald	-
LIBELLULIDAE	<i>Aethriamanta</i>	<i>nymphaeae</i>	L-spot Basker	-
LIBELLULIDAE	<i>Brahydiplax</i>	<i>denticauda</i>	Palemouth	-
LIBELLULIDAE	<i>Crocothemis</i>	<i>nigrofrons</i>	Black-headed Skimmer	-
LIBELLULIDAE	<i>Diplacodes</i>	<i>bipunctata</i>	Wandering Percher	-
LIBELLULIDAE	<i>Diplacodes</i>	<i>haematodes</i>	Scarlet Percher	-
LIBELLULIDAE	<i>Diplacodes</i>	<i>melanopsis</i>	Black-faced Percher	-
LIBELLULIDAE	<i>Hydrobasileus</i>	<i>brevistylus</i>	Water Prince	-
LIBELLULIDAE	<i>Nannodiplax</i>	<i>rubra</i>	Pygmy Percher	-
LIBELLULIDAE	<i>Orthetrum</i>	<i>caledonicum</i>	Blue Skimmer	-
LIBELLULIDAE	<i>Orthetrum</i>	<i>sabina</i>	Slender Skimmer	-
LIBELLULIDAE	<i>Orthetrum</i>	<i>villosovitatum</i>	Fiery Skimmer	-
LIBELLULIDAE	<i>Rhodothemis</i>	<i>lieftincki</i>	Red Arrow	-
LIBELLULIDAE	<i>Rhyothemis</i>	<i>graphiptera</i>	Graphic Flutterer	-
LIBELLULIDAE	<i>Rhyothemis</i>	<i>phyllis</i>	Yellow-striped Flutterer	-
LIBELLULIDAE	<i>Tramea</i>	<i>loewii</i>	Common Glider	-
LIBELLULIDAE	<i>Zyxomma</i>	<i>elgneri</i>	Short-tailed Duskdarter	-
CICADAS				
CICADIDAE	<i>Aleeta</i>	<i>curvicosta</i>	Floury Baker Cicada	-
CICADIDAE	<i>Atrapsalta</i>	<i>corticina</i>	Bark Squeaker	-
CICADIDAE	<i>Atrapsalta</i>	<i>fuscata</i>	Small Bark Squeaker	-
CICADIDAE	<i>Birrima</i>	<i>castanea</i>	Red Treeticker	-
CICADIDAE	<i>Birrima</i>	<i>varians</i>	Black Treeticker	-
CICADIDAE	<i>Chlorocysta</i>	<i>vitripennis</i>	Small Bottle Cicada	-
CICADIDAE	<i>Cystosoma</i>	<i>saundersii</i>	Bladder Cicada	-
CICADIDAE	<i>Ewartia</i>	<i>oldfieldi</i>	Broad-striped Wattle Cicada	-
CICADIDAE	<i>Glaucopsaltria</i>	<i>viridis</i>	Bottle Cicada	-
CICADIDAE	<i>Haemapsalta</i>	<i>rubea</i>	Red Squeaker	-
CICADIDAE	<i>Henicopsaltria</i>	<i>eydouxii</i>	Razor Grinder	-
CICADIDAE	<i>Popplesalta</i>	<i>annulata</i>	Sprinkler Squeaker	-
CICADIDAE	<i>Psaltoda</i>	<i>claripennis</i>	Clanger Cicada	-
CICADIDAE	<i>Psaltoda</i>	<i>harrisii</i>	Yellowbelly	-
CICADIDAE	<i>Tamasa</i>	<i>tristigma</i>	Brown Bunyip	-
CICADIDAE	<i>Telmapsalta</i>	<i>hackeri</i>	Paperbark Cicada	-
CICADIDAE	<i>Yoyetta</i>	sp cf. <i>tristigata</i>	Treetop Ticker	-
LACEWINGS				
MANTISPIDAE	<i>Ditaxis</i>	<i>biseriata</i>	-	-
CHRYSOPIIDAE	<i>Apochrysa</i>	<i>lutea</i>	-	-
CHRYSOPIIDAE	<i>Italoichrysa</i>	<i>insignis</i>	-	-
CHRYSOPIIDAE	<i>Mallada</i>	<i>signatus</i>	-	-

NYMPHIDAE	<i>Nymphes</i>	<i>myrmeleonides</i>	Blue Eyes Lacewing	-
MYRMELEONTIDAE	<i>Myrmeleon</i>	<i>acer</i>	Common Brown Antlion	-
ASCALAPHIDAE	<i>Suhpalasca</i>	<i>flavipes</i>	Yellow Owlfly	-
BUTTERFLIES				
HESPERIIDAE	<i>Arrhenes</i>	<i>marnas</i>	Swamp Darter	-
HESPERIIDAE	<i>Euschemon</i>	<i>rafflesia</i>	Regent Skipper	-
HESPERIIDAE	<i>Hesperilla</i>	<i>ornata</i>	Spotted Sedge-skipper	-
HESPERIIDAE	<i>Ocybadistes</i>	<i>flavovittata</i>	Narrow-brand Grass-dart	-
HESPERIIDAE	<i>Ocybadistes</i>	<i>walkerii</i>	Green Grass-Dart	-
HESPERIIDAE	<i>Pelopidas</i>	<i>lyelli</i>	Lyell's Swift	-
HESPERIIDAE	<i>Pelopidas</i>	<i>agna</i>	Dingy Swift	-
HESPERIIDAE	<i>Suniana</i>	<i>sunias</i>	Wide-brand Grass-dart	-
HESPERIIDAE	<i>Toxidra</i>	<i>doubledayi</i>	Lilac Grass Skipper	-
HESPERIIDAE	<i>Toxidra</i>	<i>peron</i>	Dingy Grass-skipper	-
HESPERIIDAE	<i>Trapezites</i>	<i>symmorus</i>	Splendid Ochre	-
PAPILIONIDAE	<i>Cressida</i>	<i>cressida</i>	Clearwing Swallowtail	-
PAPILIONIDAE	<i>Graphium</i>	<i>eurypylus</i>	Pale Triangle	-
PAPILIONIDAE	<i>Graphium</i>	<i>sarpedon</i>	Blue Triangle	-
PAPILIONIDAE	<i>Ornithoptera</i>	<i>richmondia</i>	Richmond birdwing	PS,V
PAPILIONIDAE	<i>Papilio</i>	<i>aegeus</i>	Orchard Swallowtail	-
PIERIDAE	<i>Appias</i>	<i>paulina</i>	Yellow Albatross	-
PIERIDAE	<i>Belenois</i>	<i>java</i>	Caper White	-
PIERIDAE	<i>Catopsilia</i>	<i>pomona</i>	Lemon Migrant	-
PIERIDAE	<i>Catopsilia</i>	<i>pyranthe</i>	White Migrant	-
PIERIDAE	<i>Cepora</i>	<i>perimale</i>	Capper Gull	-
PIERIDAE	<i>Delias</i>	<i>argenthona</i>	Scarlet Jezabel	-
PIERIDAE	<i>Delias</i>	<i>nigrina</i>	Black Jezabel	-
PIERIDAE	<i>Eurema</i>	<i>hecabe</i>	Large Grass-yellow	-
PIERIDAE	<i>Eurema</i>	<i>smilax</i>	Small Grass-yellow	-
PIERIDAE	<i>Pieris</i>	<i>rapae</i>	Cabbage White	I
NYMPHALIDAE	<i>Acraea</i>	<i>andromacha</i>	Glasswing	-
NYMPHALIDAE	<i>Charaxes</i>	<i>sempronius</i>	Tailed Emperor	-
NYMPHALIDAE	<i>Cupha</i>	<i>prosope</i>	Bordered rustic	-
NYMPHALIDAE	<i>Danaus</i>	<i>petilia</i>	Lesser Wanderer	-
NYMPHALIDAE	<i>Danaus</i>	<i>plexippus</i>	Monarch	-
NYMPHALIDAE	<i>Doleschallia</i>	<i>bisaltide</i>	Australian Leafwing	-
NYMPHALIDAE	<i>Euploea</i>	<i>corinna</i>	Common Crow	-
NYMPHALIDAE	<i>Euploea</i>	<i>tulliolus</i>	Purple Crow	-
NYMPHALIDAE	<i>Heteronympha</i>	<i>mirifica</i>	Wonder Brown	-
NYMPHALIDAE	<i>Hypocysta</i>	<i>metirius</i>	Brown Ringlet	-
NYMPHALIDAE	<i>Hypolimnas</i>	<i>bolina</i>	Varied Eggfly	-
NYMPHALIDAE	<i>Junonia</i>	<i>villida</i>	Meadow Argus	-
NYMPHALIDAE	<i>Melanitis</i>	<i>leda</i>	Evening Brown	-
NYMPHALIDAE	<i>Phaedyra</i>	<i>shepherdi</i>	White-banded Plane	-
NYMPHALIDAE	<i>Tirumala</i>	<i>hamata</i>	Blue Tiger	-
LYCAENIDAE	<i>Candalides</i>	<i>consimilis</i>	Dark Pencilled-blue	-
LYCAENIDAE	<i>Candalides</i>	<i>erinus</i>	Small Dusky-blue	-
LYCAENIDAE	<i>Catopyrops</i>	<i>florinda</i>	Speckled Line-blue	-
LYCAENIDAE	<i>Everes</i>	<i>lacturnus</i>	Orange-tipped Pea-blue	-
LYCAENIDAE	<i>Lampides</i>	<i>boeticus</i>	Long-tailed Pea-blue	-
LYCAENIDAE	<i>Nacaduba</i>	<i>berenice</i>	Large purple Line-blue	-
LYCAENIDAE	<i>Prosotas</i>	<i>felderi</i>	Small-tailed Line-blue	-
LYCAENIDAE	<i>Zizina</i>	<i>otis</i>	Common Grass-blue	-
FISHES				
ANGUILLIDAE	<i>Anguilla</i>	<i>reinhardtii</i>	Longfin Eel	LC
MELANOTAENIIDAE	<i>Melanotaenia</i>	<i>duboulayi</i>	Crimson-spotted Rainbowfish	LC
PSEUDOMUGILIDAE	<i>Pseudomugil</i>	<i>signifer</i>	Pacific blue-eye	LC
TETRAROGIDAE	<i>Marilyna</i>	<i>pleurosticta</i>	Banded Toadfish	LC
TETRAROGIDAE	<i>Tetractenos</i>	<i>hamilton</i>	Common Toadfish	LC
AMBASSIDAE	<i>Ambassis</i>	<i>marianus</i>	Estuary Glassfish	LC
LUTJANIDAE	<i>Lutjanus</i>	<i>russelli</i>	Moses Perach	LC
GERREIDAE	<i>Gerres</i>	<i>subfasciatus</i>	Common Silverbiddy	LC
MUGILIDAE	<i>Liza</i>	<i>argentea</i>	Gold Spot Mullet	LC
MUGILIDAE	<i>Mugil</i>	<i>cephalus</i>	Sea Mullet	LC
ELEOTRIDAE	<i>Gobiomorphus</i>	<i>australis</i>	Striped Gudgeon	LC
ELEOTRIDAE	<i>Hypseleotris</i>	<i>compressa</i>	Empire Gudgeon	LC

ELEOTRIDAE	<i>Hypseleotris</i>	<i>galii</i>	Firetail Gudgeon	LC
ELEOTRIDAE	<i>Goby</i>	sp.	-	-
SPASRIDAE	<i>Acanthopagrus</i>	<i>australis</i>	Yellowfin Bream	LC
POECILIIDAE	<i>Gambusia</i>	<i>holbrooki</i>	Plague Minnow	I
POECILIIDAE	<i>Xiphophorus</i>	<i>hellerii</i>	Swordtail	I
FROGS				
LIMNODYNASTIDAE	<i>Adelotus</i>	<i>brevis</i>	Tusked Frog	CWS,V
LIMNODYNASTIDAE	<i>Limnodynastes</i>	<i>peronii</i>	Striped Marshfrog	LC
MYOBATRACHIDAE	<i>Pseudophryne</i>	<i>raveni</i>	Copper-backed Broodfrog	LC
PELODRYADIDAE	<i>Litoria</i>	<i>fallax</i>	Eastern Sedgefrog	LC
PELODRYADIDAE	<i>Litoria</i>	<i>gracilenta</i>	Graceful Treefrog	LC
PELODRYADIDAE	<i>Litoria</i>	<i>nasuta</i>	Striped Rocketfrog	LC
PELODRYADIDAE	<i>Litoria</i>	<i>peronii</i>	Emerald-spotted Treefrog	LC
PELODRYADIDAE	<i>Litoria</i>	<i>tyleri</i>	Southern-laughing Treefrog	LC
BUFONIDAE	<i>Rhinella</i>	<i>marina</i>	Cane Toad	I
REPTILES				
GEKKONIDAE	<i>Hemidactylus</i>	<i>frenatus</i>	House Gecko	I
SCINCIDAE	<i>Calyptotis</i>	<i>scutirostrum</i>	Scute-snouted Calyptotis	LC
SCINCIDAE	<i>Cryptoblepharus</i>	<i>pulcher</i>	Cream-striped Shinning-skink	LC
SCINCIDAE	<i>Cyclodomorphus</i>	<i>gerrardii</i>	Pink-tongued Lizard	LC
SCINCIDAE	<i>Lampropholis</i>	<i>delicata</i>	Garden Skink	LC
SCINCIDAE	<i>Saiphos</i>	<i>equalis</i>	Three-toed Skink	LC
AGAMIDAE	<i>Intellagama</i>	<i>lesueurii</i>	Eastern Water Dragon	LC
VARANIDAE	<i>Varanus</i>	<i>varius</i>	Lace Monitor	LC
TYPHLOPIDAE	<i>Anilius</i>	<i>nigrescens</i>	Blackish Blind Snake	LC
ELAPIDAE	<i>Cryptophis</i>	<i>nigrescens</i>	Eastern Small-eyed Snake	LC
ELAPIDAE	<i>Tropidechis</i>	<i>carinatus</i>	Rough-scaled Snake	LC
BIRDS				
MEGAPODIDAE	<i>Alectura</i>	<i>lathamii</i>	Australian Brush-turkey	LC
ANATIDAE	<i>Dendrocygna</i>	<i>eytoni</i>	Plumed Whistling-Duck	M,LC
ANATIDAE	<i>Chenonetta</i>	<i>jubata</i>	Australian Wood Duck	LC
ANATIDAE	<i>Anas</i>	<i>superciliosa</i>	Pacific Black Duck	LC
PODICIPEDIDAE	<i>Tachybaptus</i>	<i>novaehollandiae</i>	Australasian Grebe	LC
COLUMBIDAE	<i>Columba</i>	<i>livia</i>	Rock Dove	I
COLUMBIDAE	<i>Columba</i>	<i>leucomela</i>	White-headed Pigeon	LC
COLUMBIDAE	<i>Streptopelia</i>	<i>chinensis</i>	Spotted Dove	I
COLUMBIDAE	<i>Macropygia</i>	<i>amboinensis</i>	Brown Cuckoo-Dove	LC
COLUMBIDAE	<i>Chalcophaps</i>	<i>indica</i>	Emerald Dove	LC
COLUMBIDAE	<i>Geopelia</i>	<i>humeralis</i>	Bar-shouldered Dove	LC
COLUMBIDAE	<i>Leucosarcia</i>	<i>picata</i>	Wonga Pigeon	LC
COLUMBIDAE	<i>Ptilinopus</i>	<i>magnificus</i>	Wompoo Fruit-Dove	LC
COLUMBIDAE	<i>Ptilinopus</i>	<i>regina</i>	Rose-crowned Fruit-Dove	LC
COLUMBIDAE	<i>Lopholaimus</i>	<i>antarcticus</i>	Topknot Pigeon	LC
PODARGIDAE	<i>Podargus</i>	<i>strigoides</i>	Tawny Frogmouth	LC
AEGOTHELIDAE	<i>Aegotheles</i>	<i>cristatus</i>	Australian Owlet-nightjar	LC
CUCULIDAE	<i>Centropus</i>	<i>phasianinus</i>	Pheasant Coucal	LC
CUCULIDAE	<i>Eudynamis</i>	<i>orientalis</i>	Pacific Koel	M,LC
CUCULIDAE	<i>Scythrops</i>	<i>novaehollandiae</i>	Channel-billed Cuckoo	M,LC
CUCULIDAE	<i>Chalcites</i>	<i>lucidus</i>	Shining Bronze-Cuckoo	M,LC
CUCULIDAE	<i>Cacomantis</i>	<i>flabelliformis</i>	Fan-tailed Cuckoo	M,LC
CUCULIDAE	<i>Cacomantis</i>	<i>variolosus</i>	Brush Cuckoo	LC
RALLIDAE	<i>Porphyrio</i>	<i>porphyrio</i>	Purple Swamphen	LC
RALLIDAE	<i>Lewinia</i>	<i>pectoralis</i>	Lewin's Rail	CWS,LC
RALLIDAE	<i>Gallirallus</i>	<i>philippensis</i>	Buff-banded Rail	LC
RALLIDAE	<i>Fulica</i>	<i>atra</i>	Eurasian Coot	LC
THRESKIORNITHIDAE	<i>Threskiornis</i>	<i>molucca</i>	Australian White Ibis	M,LC
THRESKIORNITHIDAE	<i>Threskiornis</i>	<i>spinirostris</i>	Straw-necked Ibis	M,LC
THRESKIORNITHIDAE	<i>Platalea</i>	<i>regia</i>	Royal Spoonbill	LC
ARDEIDAE	<i>Ardea</i>	<i>pacifica</i>	White-necked Heron	LC
ARDEIDAE	<i>Ardea</i>	<i>modesta</i>	Eastern Great Egret	M,LC
ARDEIDAE	<i>Ardea</i>	<i>intermedia</i>	Intermediate Egret	M,LC
ARDEIDAE	<i>Ardea</i>	<i>ibis</i>	Cattle Egret	M,LC
ARDEIDAE	<i>Butorides</i>	<i>striatus</i>	Striated Heron	LC
ARDEIDAE	<i>Egretta</i>	<i>novaehollandiae</i>	White-faced Heron	LC
ARDEIDAE	<i>Egretta</i>	<i>garzetta</i>	Little Egret	LC
ARDEIDAE	<i>Nycticorax</i>	<i>caledonicus</i>	Nankeen Night Heron	M,LC

PELECANIDAE	<i>Pelecanus</i>	<i>conspicillatus</i>	Australian Pelican#	M,LC
PHALACROCORACIDAE	<i>Microcarbo</i>	<i>melanoleucos</i>	Little Pied Cormorant	LC
PHALACROCORACIDAE	<i>Phalacrocorax</i>	<i>sulcirostris</i>	Little Black Cormorant	LC
PHALACROCORACIDAE	<i>Phalacrocorax</i>	<i>varius</i>	Pied Cormorant	LC
CHARADRIIDAE	<i>Vanellus</i>	<i>miles</i>	Masked Lapwing	LC
STRIGIDAE	<i>Ninox</i>	<i>strenua</i>	Powerful Owl	CWS,V
STRIGIDAE	<i>Ninox</i>	<i>boobook</i>	Southern Boobook	M,LC
TYTONIDAE	<i>Tyto</i>	<i>javanica</i>	Eastern Barn Owl	LC
PANDIONIDAE	<i>Pandion</i>	<i>haliaetus</i>	Eastern Osprey	M,Mi,SLC
ACCIPITRIDAE	<i>Aviceda</i>	<i>subcristata</i>	Pacific Baza	LC
ACCIPITRIDAE	<i>Haliaeetus</i>	<i>leucogaster</i>	White-bellied Sea-Eagle	M,LC
ACCIPITRIDAE	<i>Haliastur</i>	<i>sphenurus</i>	Whistling Kite	M,LC
ACCIPITRIDAE	<i>Haliastur</i>	<i>indus</i>	Brahminy Kite	M,LC
ACCIPITRIDAE	<i>Accipiter</i>	<i>fasciatus</i>	Brown Goshawk	M,LC
ACCIPITRIDAE	<i>Accipiter</i>	<i>cirrocephalus</i>	Collared Sparrowhawk	LC
ACCIPITRIDAE	<i>Aquila</i>	<i>audax</i>	Wedge-tailed Eagle	LC
MEROPIDAE	<i>Merops</i>	<i>ornatus</i>	Rainbow Bee-eater	M,LC
CORACIIDAE	<i>Eurystomus</i>	<i>orientalis</i>	Dollarbird	LC
ALCEDINIDAE	<i>Ceyx</i>	<i>azureus</i>	Azure Kingfisher	LC
ALCEDINIDAE	<i>Dacelo</i>	<i>novaeguineae</i>	Laughing Kookaburra	LC
ALCEDINIDAE	<i>Todiramphus</i>	<i>macleanii</i>	Forest Kingfisher	M,LC
ALCEDINIDAE	<i>Todiramphus</i>	<i>sanctus</i>	Sacred Kingfisher	M,LC
CACATUIDAE	<i>Calyptorhynchus</i>	<i>lathami</i>	Glossy Black-cockatoo	CWS,PS,V,V*
CACATUIDAE	<i>Calyptorhynchus</i>	<i>funereus</i>	Yellow-tailed Black-cockatoo	LC
CACATUIDAE	<i>Eolophus</i>	<i>roseicapillus</i>	Galah	LC
CACATUIDAE	<i>Cacatua</i>	<i>sanguinea</i>	Little Corella	LC
CACATUIDAE	<i>Cacatua</i>	<i>galerita</i>	Sulphur-crested Cockatoo	LC
PSITTACULIDAE	<i>Trichoglossus</i>	<i>moluccanus</i>	Rainbow Lorikeet	LC
PSITTACULIDAE	<i>Trichoglossus</i>	<i>chlorolepidotus</i>	Scaly-breasted Lorikeet	LC
PSITTACULIDAE	<i>Glossopsitta</i>	<i>pusilla</i>	Little Lorikeet	LC
PSITTACULIDAE	<i>Alisterus</i>	<i>scapularis</i>	Australian King-Parrot	LC
PSITTACULIDAE	<i>Platycercus</i>	<i>adscitus</i>	Pale-headed Rosella	LC
CLIMACTERIDAE	<i>Cormobates</i>	<i>leucophaea</i>	White-throated Treecreeper	LC
MALURIDAE	<i>Malurus</i>	<i>cyaneus</i>	Superb Fairy-wren	LC
MALURIDAE	<i>Malurus</i>	<i>melanocephalus</i>	Red-backed Fairy-wren	LC
MALURIDAE	<i>Malurus</i>	<i>lamerti</i>	Variegated Fairy-wren	LC
MELIPHAGIDAE	<i>Acanthorhynchus</i>	<i>tenuirostris</i>	Eastern Spinebill	LC
MELIPHAGIDAE	<i>Meliphaga</i>	<i>lewinii</i>	Lewin's Honeyeater	LC
MELIPHAGIDAE	<i>Lichenostomus</i>	<i>chrysops</i>	Yellow-faced Honeyeater	LC
MELIPHAGIDAE	<i>Manorina</i>	<i>melanocephala</i>	Noisy Miner	LC
MELIPHAGIDAE	<i>Myzomela</i>	<i>sanguinolenta</i>	Scarlet Honeyeater	LC
MELIPHAGIDAE	<i>Lichmera</i>	<i>indistincta</i>	Brown Honeyeater	LC
MELIPHAGIDAE	<i>Melithreptus</i>	<i>albogularis</i>	White-throated Honeyeater	LC
MELIPHAGIDAE	<i>Melithreptus</i>	<i>lunatus</i>	White-naped Honeyeater	LC
MELIPHAGIDAE	<i>Entomyzon</i>	<i>cyanotis</i>	Blue-faced Honeyeater	LC
MELIPHAGIDAE	<i>Philemon</i>	<i>corniculatus</i>	Noisy Friarbird	LC
MELIPHAGIDAE	<i>Philemon</i>	<i>citreogularis</i>	Little Friarbird	LC
PARDALOTIDAE	<i>Pardalotus</i>	<i>punctatus</i>	Spotted Pardalote	LC
PARDALOTIDAE	<i>Pardalotus</i>	<i>striatus</i>	Striated Pardalote	LC
ACANTHIZIDAE	<i>Sericornis</i>	<i>frontalis</i>	White-browed Scrubwren	LC
ACANTHIZIDAE	<i>Sericornis</i>	<i>magnirostra</i>	Large-billed Scrubwren	LC
ACANTHIZIDAE	<i>Gerygone</i>	<i>albogularis</i>	White-throated Gerygone	LC
ACANTHIZIDAE	<i>Acanthiza</i>	<i>lineata</i>	Striated Thornbill	LC
ACANTHIZIDAE	<i>Acanthiza</i>	<i>pusilla</i>	Brown Thornbill	LC
ORIOIDAE	<i>Sphecotheres</i>	<i>vieillotii</i>	Australasian Figbird	LC
ORIOIDAE	<i>Oriolus</i>	<i>sagittatus</i>	Olive-backed Oriole	LC
PACHYCEPHALIDAE	<i>Pachycephala</i>	<i>pectoralis</i>	Golden Whistler	LC
PACHYCEPHALIDAE	<i>Pachycephala</i>	<i>rufiventris</i>	Rufous Whistler	LC
PACHYCEPHALIDAE	<i>Colluricincla</i>	<i>rufogaster</i>	Rufous Shrike-thrush	LC
PACHYCEPHALIDAE	<i>Colluricincla</i>	<i>harmonica</i>	Eastern Grey Shrike-thrush	LC
PSOPHODIDAE	<i>Psophodes</i>	<i>olivaceus</i>	Eastern Whipbird	LC
CAMPEPHAGIDAE	<i>Coracina</i>	<i>novaehollandiae</i>	Black-faced Cuckoo-Shrike	M,LC
CAMPEPHAGIDAE	<i>Edolisoma</i>	<i>tenuirostre</i>	Common Cicadabird	M,LC
CAMPEPHAGIDAE	<i>Lalage</i>	<i>leucomela</i>	Varied Triller	LC
ARTAMIDAE	<i>Cracticus</i>	<i>nigrogularis</i>	Pied Butcherbird	LC
ARTAMIDAE	<i>Cracticus</i>	<i>torquatus</i>	Grey Butcherbird	LC

ARTAMIDAE	<i>Gymnorhina</i>	<i>tibicen</i>	Australian Magpie	LC
ARTAMIDAE	<i>Strepera</i>	<i>graculina</i>	Pied Currawong	LC
RHIPIDURIDAE	<i>Rhipidura</i>	<i>rufifrons</i>	Rufous Fantail	M,Mi,SLC
RHIPIDURIDAE	<i>Rhipidura</i>	<i>albiscapa</i>	Grey Fantail	LC
RHIPIDURIDAE	<i>Rhipidura</i>	<i>leucophrys</i>	Willie Wagtail	LC
DICRURIDAE	<i>Dicrurus</i>	<i>bracteatus</i>	Spangled Drongo	M,LC
MONARCHIDAE	<i>Myiagra</i>	<i>rubecula</i>	Leaden Flycatcher	LC
MONARCHIDAE	<i>Monarcha</i>	<i>melanopsis</i>	Black-faced Monarch	M,Mi,SLC
MONARCHIDAE	<i>Symposiachus</i>	<i>trivirgatus</i>	Spectacled Monarch	M,Mi,SLC
MONARCHIDAE	<i>Grallina</i>	<i>cyanoleuca</i>	Magpie-lark	M,LC
CORVIDAE	<i>Corvus</i>	<i>orru</i>	Torresian Crow	LC
PETROICIDAE	<i>Eopsaltria</i>	<i>australis</i>	Eastern Yellow Robin	LC
CISTICOLIDAE	<i>Cisticola</i>	<i>exilis</i>	Golden-headed Cisticola	LC
ACROCEPHALIDAE	<i>Acrocephalus</i>	<i>australis</i>	Australian Reed Warbler	M,LC
LOCUSTELLIDAE	<i>Megalurus</i>	<i>timoriensis</i>	Tawny Grassbird	LC
HIRUNDINIDAE	<i>Hirundo</i>	<i>neoxena</i>	Welcome Swallow	M,LC
ZOSTEROPIDAE	<i>Zosterops</i>	<i>lateralis</i>	Silvereye	M,LC
STURNIDAE	<i>Sturnus</i>	<i>tristis</i>	Common Mynah	I
DICAEIDAE	<i>Dicaeum</i>	<i>hirundinaceum</i>	Mistletoebird	LC
ESTRILDIDAE	<i>Neochmia</i>	<i>temporalis</i>	Red-browed Finch	LC
MAMMALS				
TACHYGLOSSIDAE	<i>Tachyglossus</i>	<i>aculeatus</i>	Short-beaked Echidna	SLC
DASYURIDAE	<i>Antechinus</i>	<i>flavipes</i>	Yellow-footed Antechinus	LC
PERAMELIDAE	<i>Isodon</i>	<i>macrourus</i>	Northern Brown Bandicoot	LC
PERAMELIDAE	<i>Perameles</i>	<i>nasuta</i>	Long-nosed Bandicoot	LC
ACROBATIDAE	<i>Acrobates</i>	<i>pygmaeus</i>	Feathertail Glider	LC
PSEUDOCHEIRIDAE	<i>Pseudocheirus</i>	<i>peregrinus</i>	Common Ringtail Possum	LC
PETAURIDAE	<i>Petaurus</i>	<i>breviceps</i>	Sugar Glider	LC
PHALANGERIDAE	<i>Trichosurus</i>	<i>caninus</i>	Short-eared Brushtail Possum	LC
PHALANGERIDAE	<i>Trichosurus</i>	<i>vulpecula</i>	Common Brushtail Possum	LC
PHASCOLARCTIDAE	<i>Phascolarctos</i>	<i>cinereus</i>	Koala	CWS,PS,E,E*
MACROPODIDAE	<i>Macropus</i>	<i>giganteus</i>	Eastern Grey Kangaroo	LC
MACROPODIDAE	<i>Wallabia</i>	<i>bicolor</i>	Swamp Wallaby	LC
PTEROPODIDAE	<i>Pteropus</i>	<i>alecto</i>	Black Flying-fox	LC
PTEROPODIDAE	<i>Pteropus</i>	<i>poliocephalus</i>	Grey-headed Flying-fox	CWS,PS,LC,V*
RHINOLOPHIDAE	<i>Rhinolophus</i>	<i>megaphyllus</i>	Eastern Horseshoe Bat	LC
EMBALLONURIDAE	<i>Saccolaimus</i>	<i>flaviventris</i>	Yellow-bellied Sheath-tailed Bat	LC
MOLOSSIDAE	<i>Austronomus</i>	<i>australis</i>	White-striped Free-tailed Bat	LC
MOLOSSIDAE	<i>Ozimops</i>	<i>ridei</i>	Ride's Free-tailed Bat	LC
MINIOPTERIDAE	<i>Miniopterus</i>	<i>australis</i>	Little Bent-wing Bat	LC
MINIOPTERIDAE	<i>Miniopterus</i>	<i>orianae oceanensis</i>	Northern Bent-wing Bat	LC
VESPERTILIONIDAE	<i>Chalinolobus</i>	<i>gouldii</i>	Gould's Wattled Bat	LC
VESPERTILIONIDAE	<i>Chalinolobus</i>	<i>morio</i>	Chocolate Wattled Bat	LC
VESPERTILIONIDAE	<i>Myotis</i>	<i>macropus</i>	Large-footed Myotis	CWS,LC
VESPERTILIONIDAE	<i>Nyctophilus</i>	<i>sp.</i>	-	LC
VESPERTILIONIDAE	<i>Scotorepens</i>	<i>orion</i>	Eastern Broad-nosed Bat	CWS,LC
VESPERTILIONIDAE	<i>Vespadelus</i>	<i>darlingtoni</i>	Large Forest Bat	CWS,LC
VESPERTILIONIDAE	<i>Vespadelus</i>	<i>pumilis</i>	Eastern Forest Bat	LC
MURIDAE	<i>Melomys</i>	<i>cervinipes</i>	Fawn-footed Melomys	LC
MURIDAE	<i>Mus</i>	<i>musculus</i>	House Mouse	I
MURIDAE	<i>Rattus</i>	<i>fuscipes</i>	Bush Rat	LC
MURIDAE	<i>Rattus</i>	<i>rattus</i>	Black Rat	I
CANIDAE	<i>Canis</i>	<i>lupus familiaris</i>	Domestic Dog	I
CANIDAE	<i>Canis</i>	<i>lupus dingo</i>	Dingo	I
LEPORIDAE	<i>Lepus</i>	<i>europaeus</i>	Brown Hare	I
EQUIDAE	<i>Equus</i>	<i>caballus</i>	Horse	I
BOVIDAE	<i>Bos</i>	<i>taurus</i>	Cattle	I

Attachment 3: Regional Ecosystem Photos

Secondary Plot 1

Sub-Zone 1.2

North



Regional Ecosystem: 12.11.23

Date Photos Taken: 19/01/24

East



South



West



Secondary Plot No. 2

Sub-Zone 3.3

North



Regional Ecosystem: 12.11.23

Date Photo Taken: 23/01/24

East



South



West



Secondary Plot No.3

Sub-Zone 2.4

North



Regional Ecosystem: 12.11.3a

Date Photo Taken: 24/01/24

East



South



West



Secondary Plot No. 4

Sub-Zone 2.1

North



Regional Ecosystem: 12.11.23

Date Photo Taken: 03/02/24

East



South



West



Quaternary Plot No. 5

Sub-Zone 2.1

North



Regional Ecosystem:12.11.3a

Date Photo Taken: 02/02/24

East



South



West



Secondary Plot No. 6

Sub-Zone 6.2

North



Regional Ecosystem: 12.3.20 Coastal Swamp Oak section

Date Photo Taken: 13/02/24

East



South



West



Secondary Plot No.7

Sub-Zone 1.3

North



Regional Ecosystem: 12.11.1

Date Photo Taken: 13/02/24

East



South



West

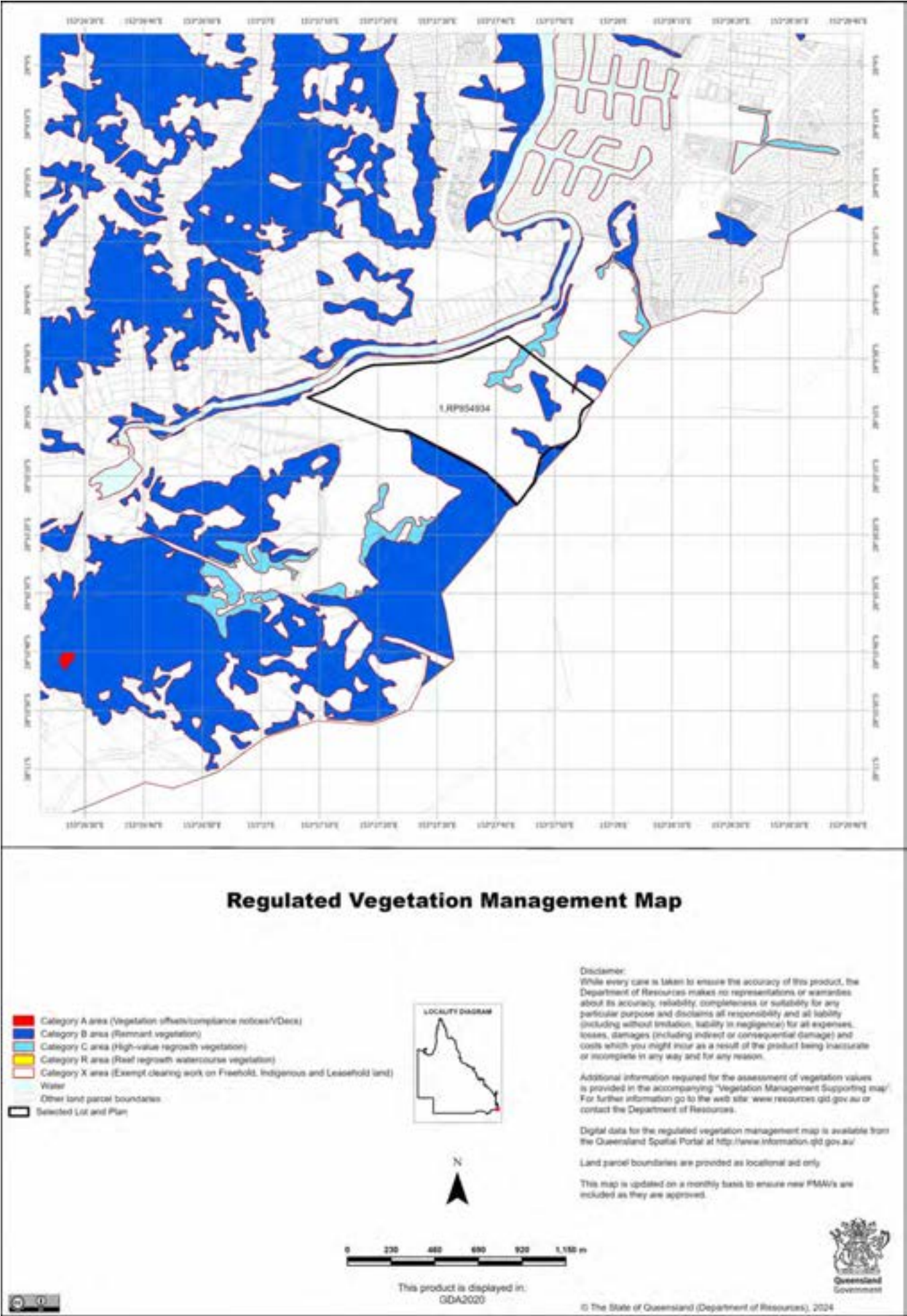




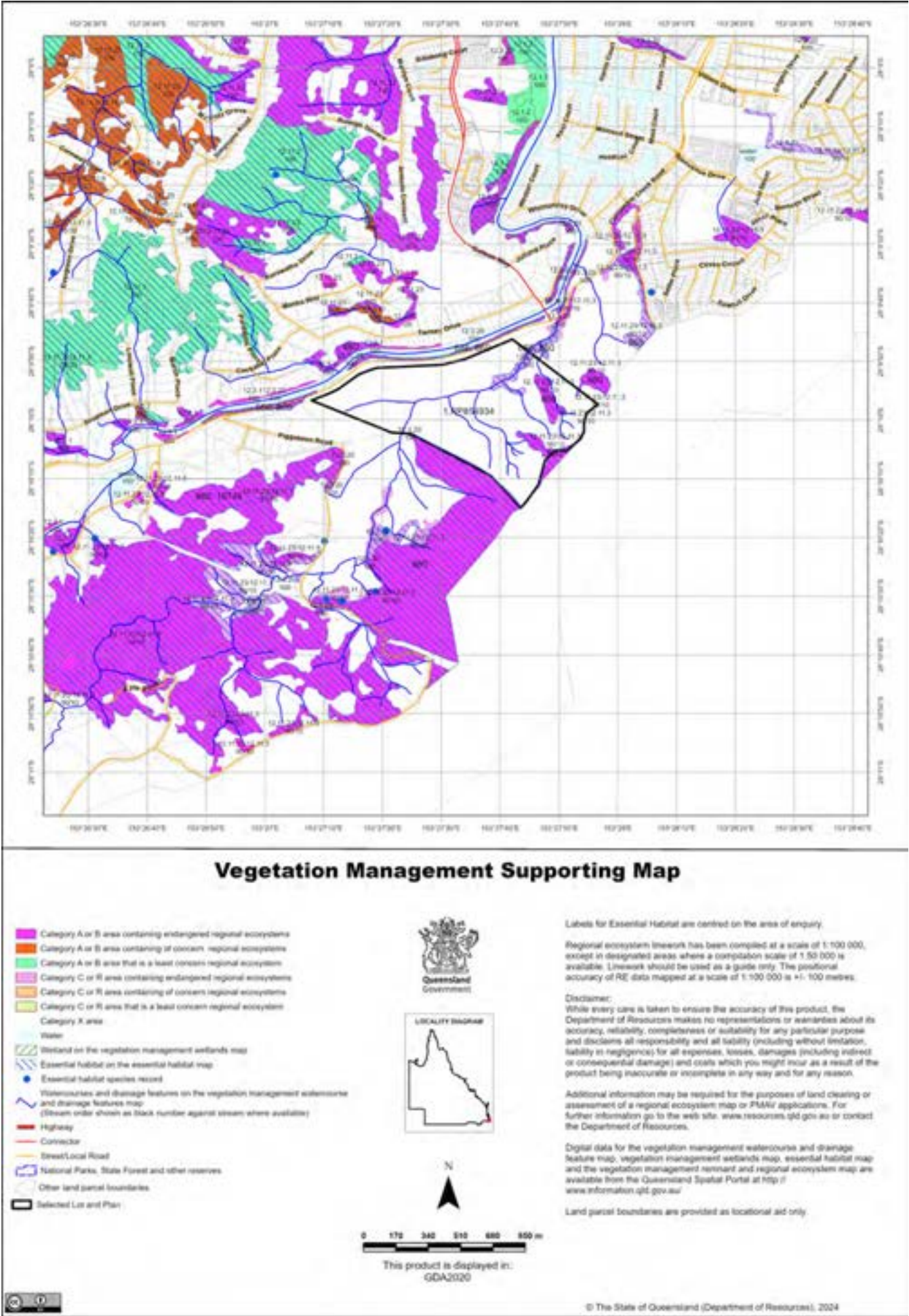
Attachment 4: Queensland State Mapping

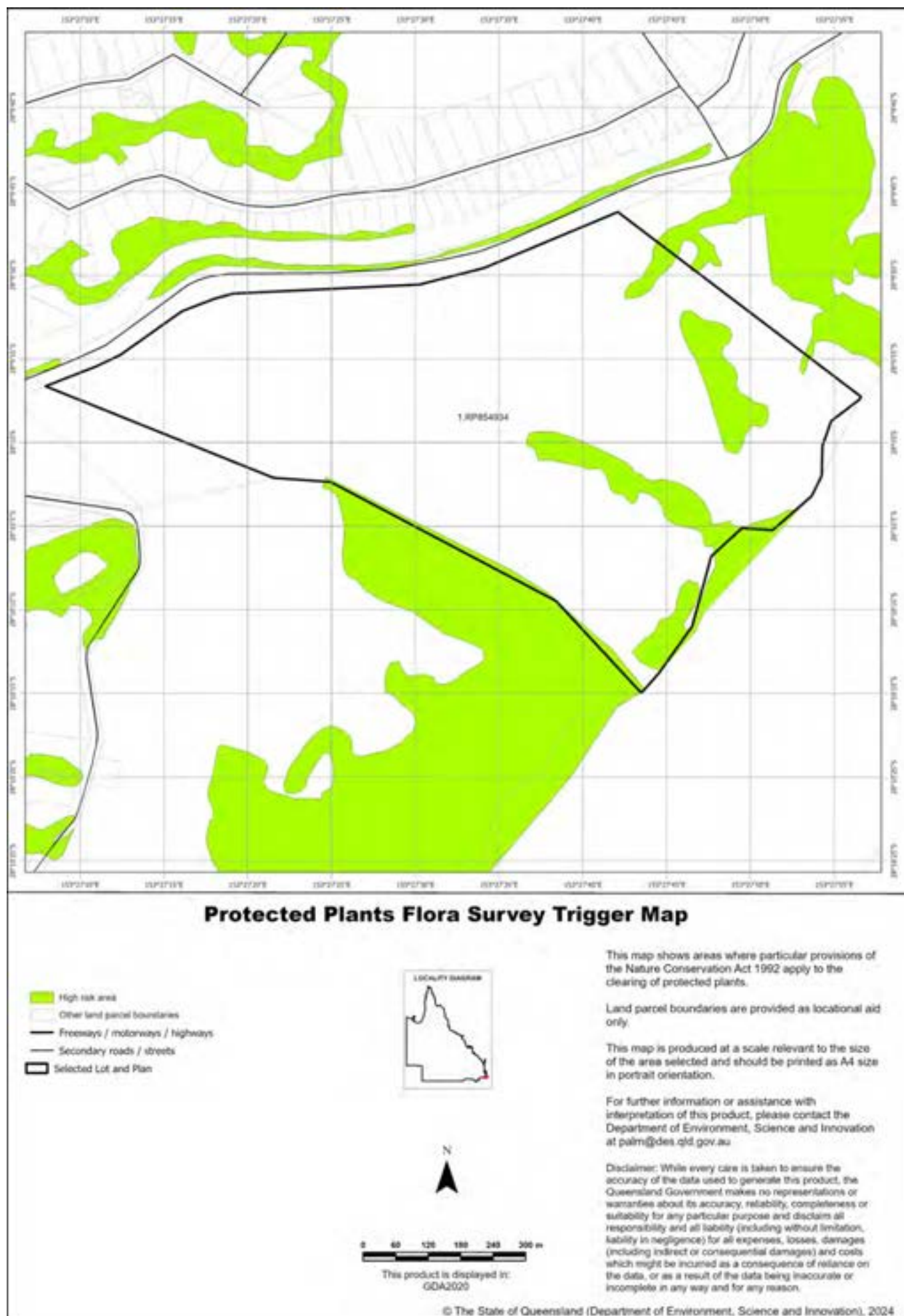
- Pre-Clear Mapping
- Wetlands Mapping
- Vegetation Mapping

4.1 Regulated vegetation management map



4.2 Vegetation management supporting map



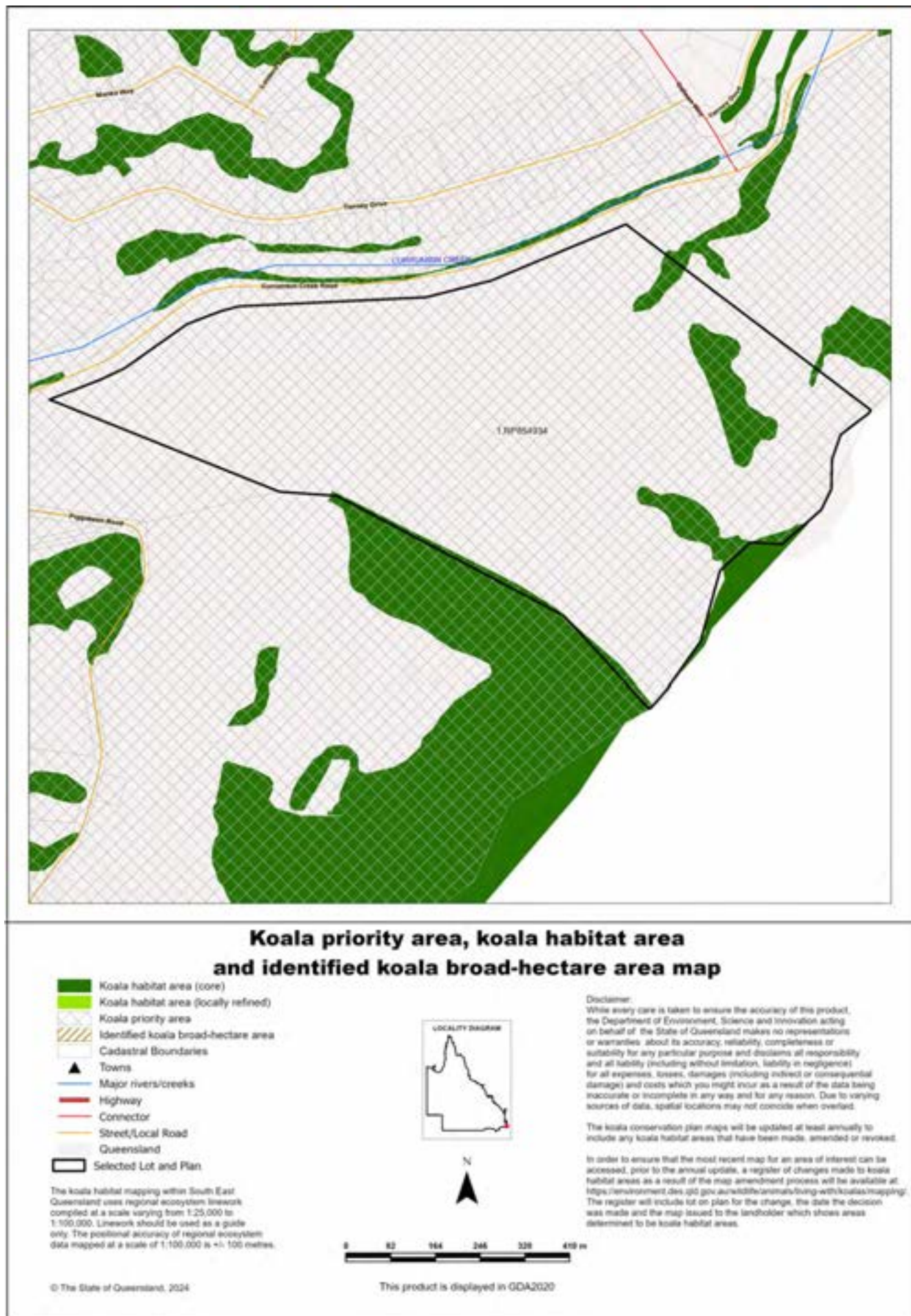


7. Koala protection framework details for Lot: 1 Plan: RP854934

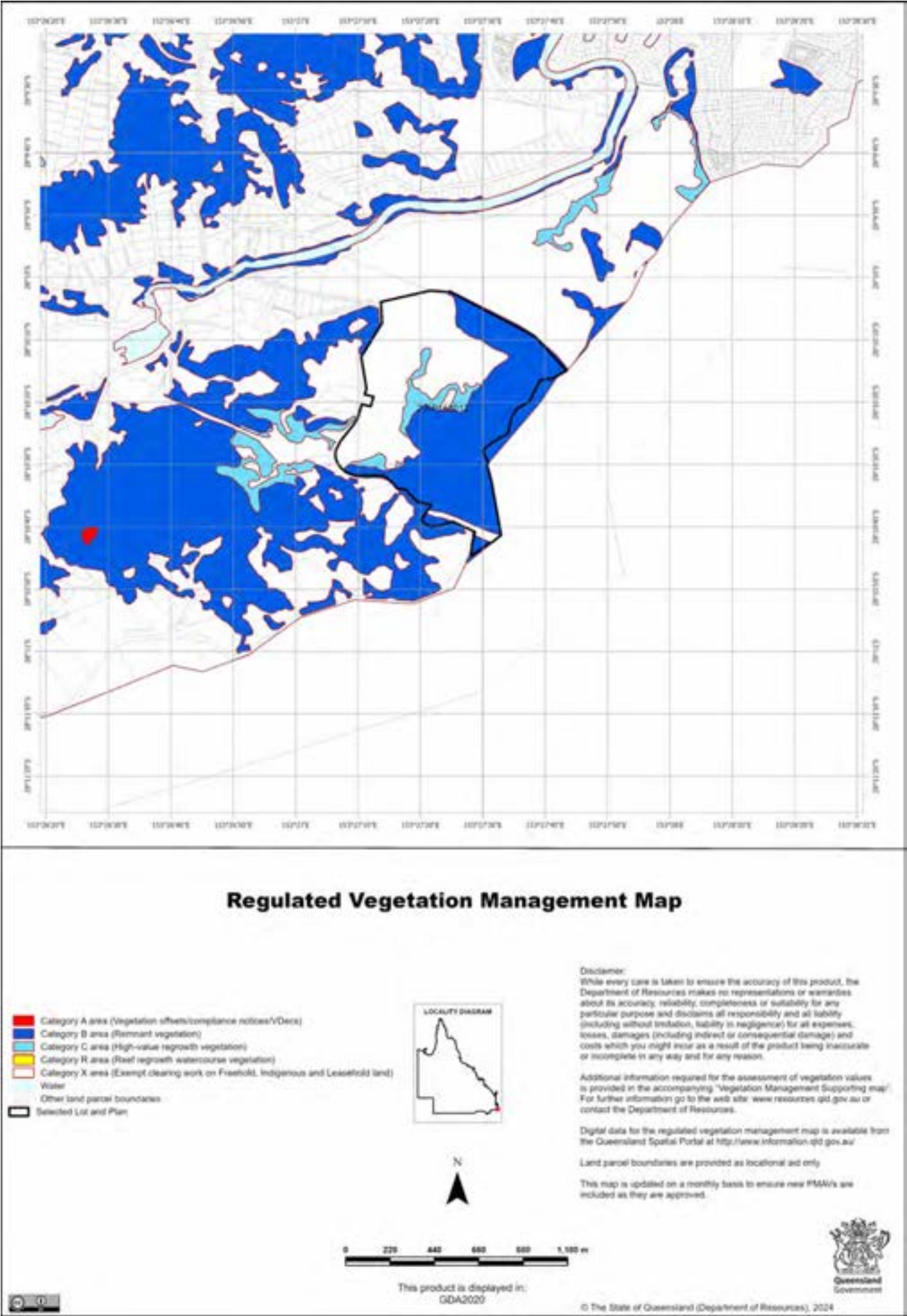
7.1 Koala districts

Koala District A

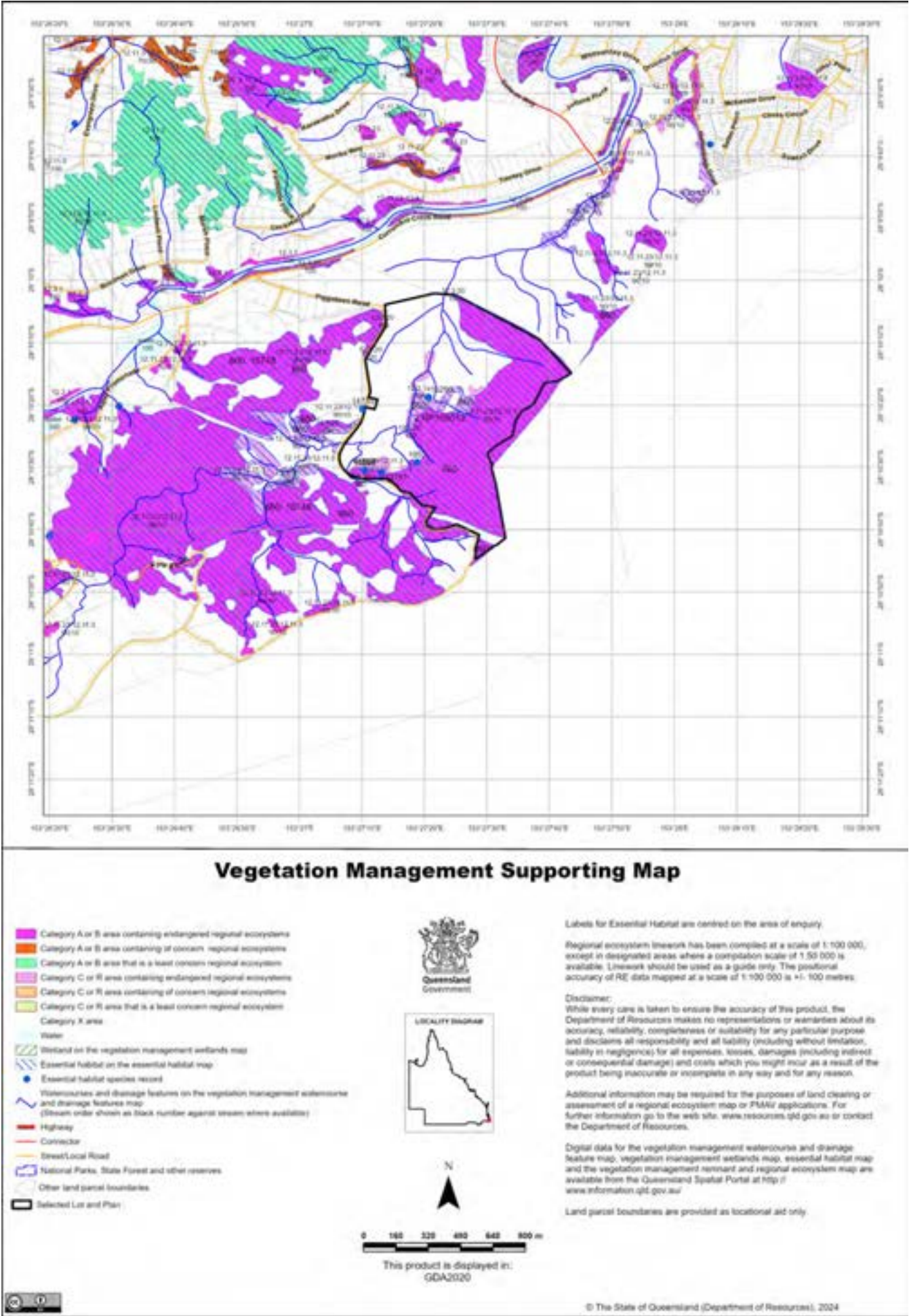
7.2 Koala priority area, koala habitat area and identified koala broad-hectare map

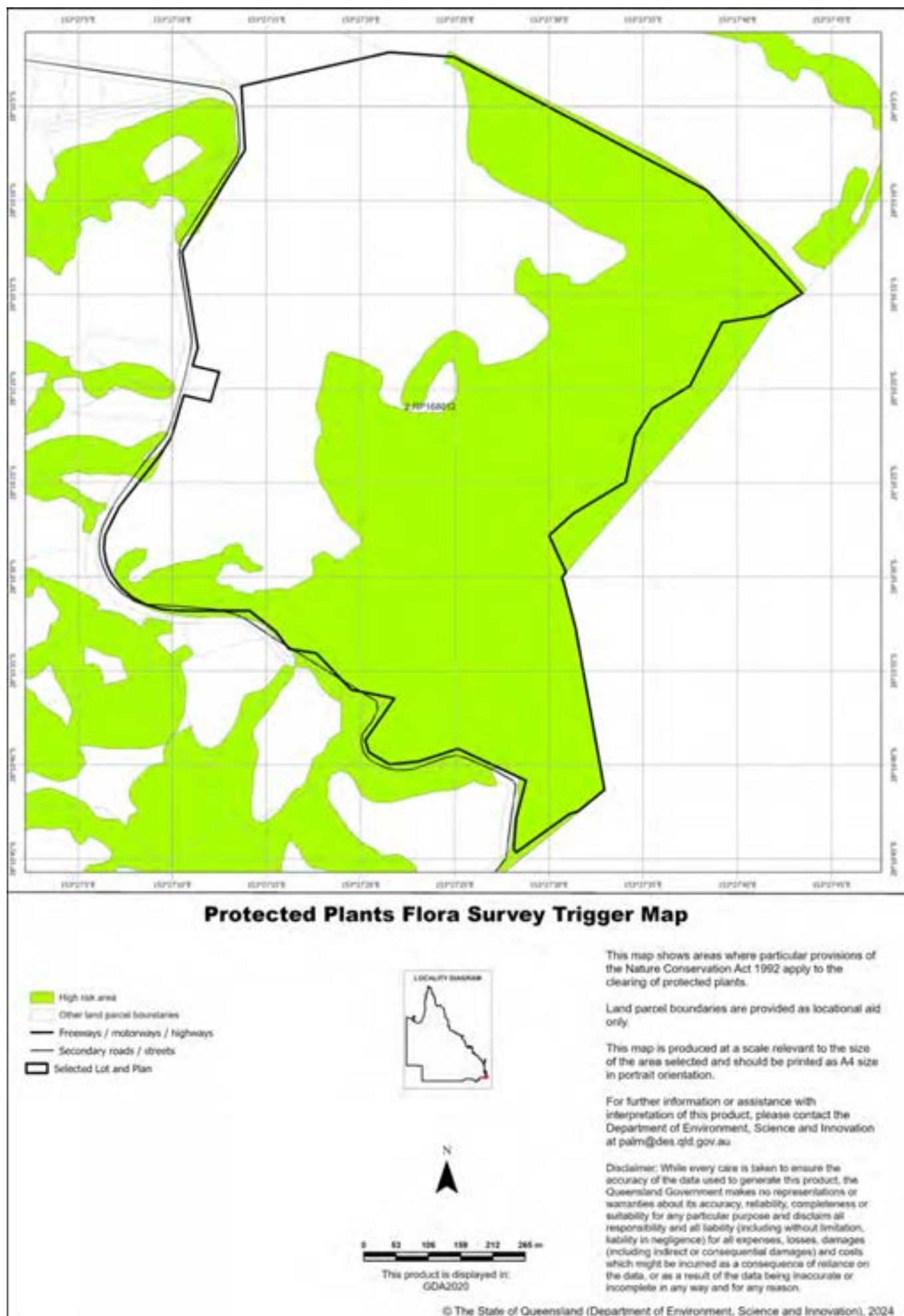


4.1 Regulated vegetation management map



4.2 Vegetation management supporting map



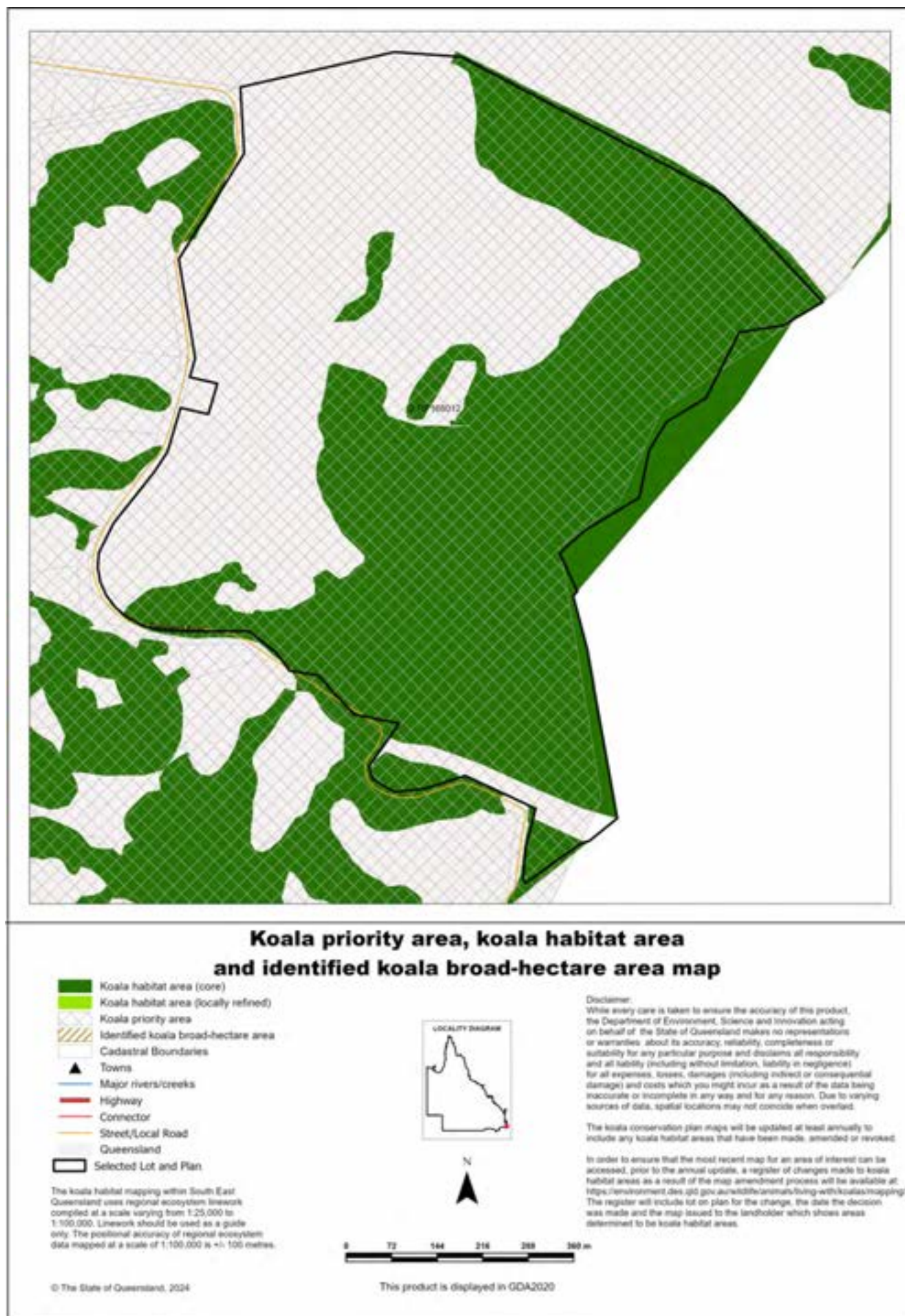


7. Koala protection framework details for Lot: 2 Plan: RP168012

7.1 Koala districts

Koala District A

7.2 Koala priority area, koala habitat area and identified koala broad-hectare map





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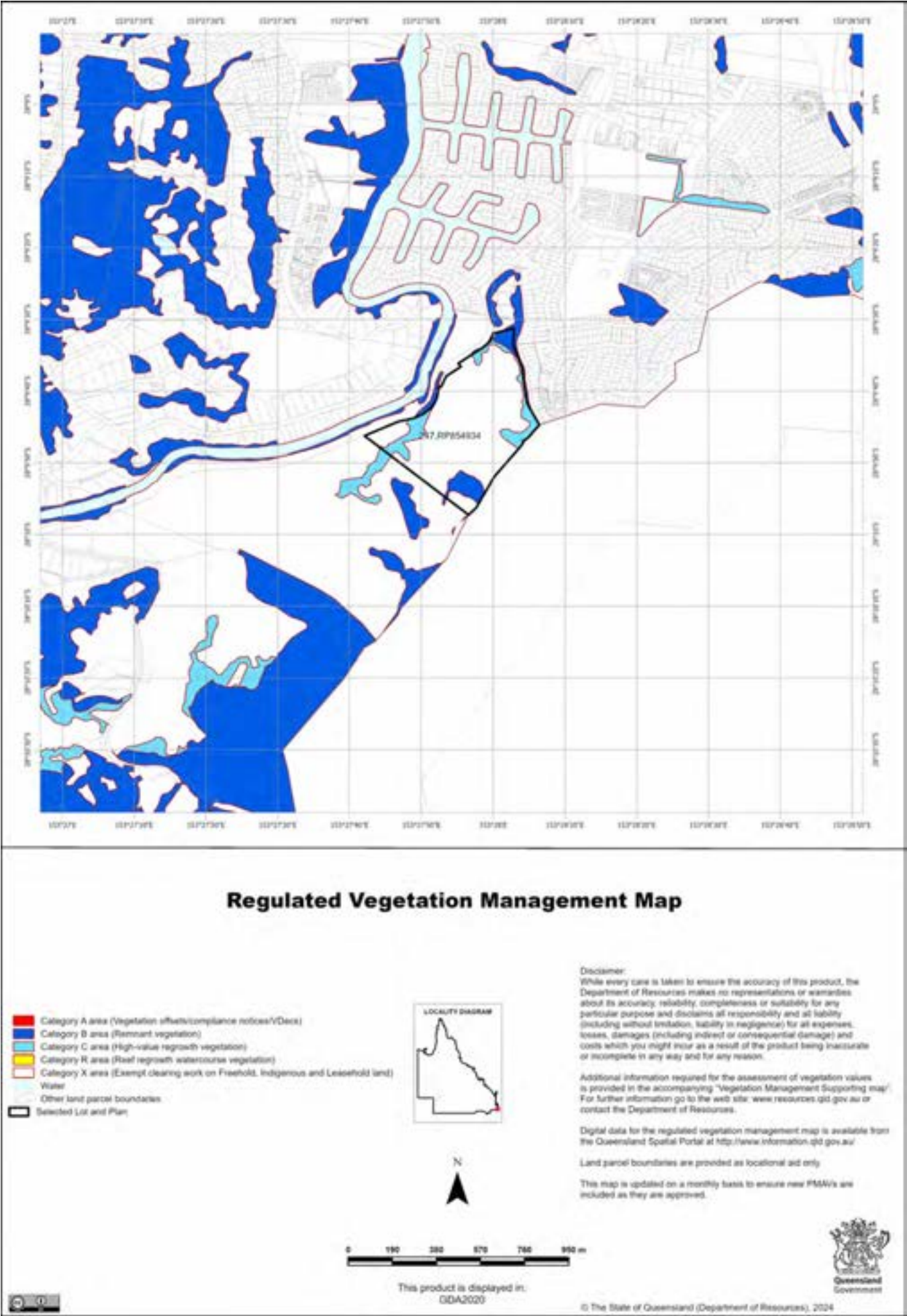
Pre-clearing regional ecosystem fire-work reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only.

Digital data for the Pre-clearing regional ecosystem map is available from the Queensland Spatial Portal at <http://www.information.qld.gov.au>

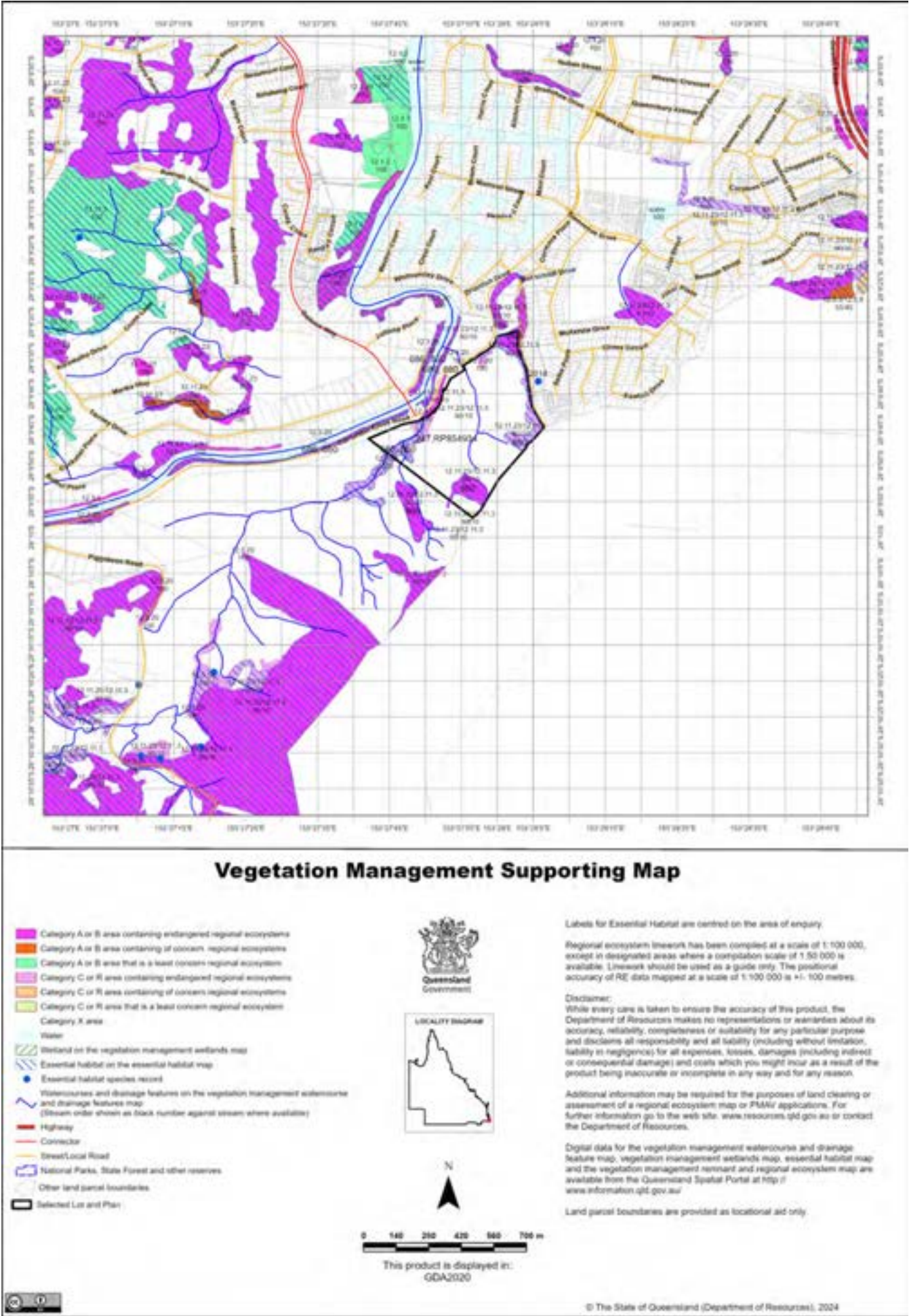
Land parcel boundaries shown are provided as a locational aid only.

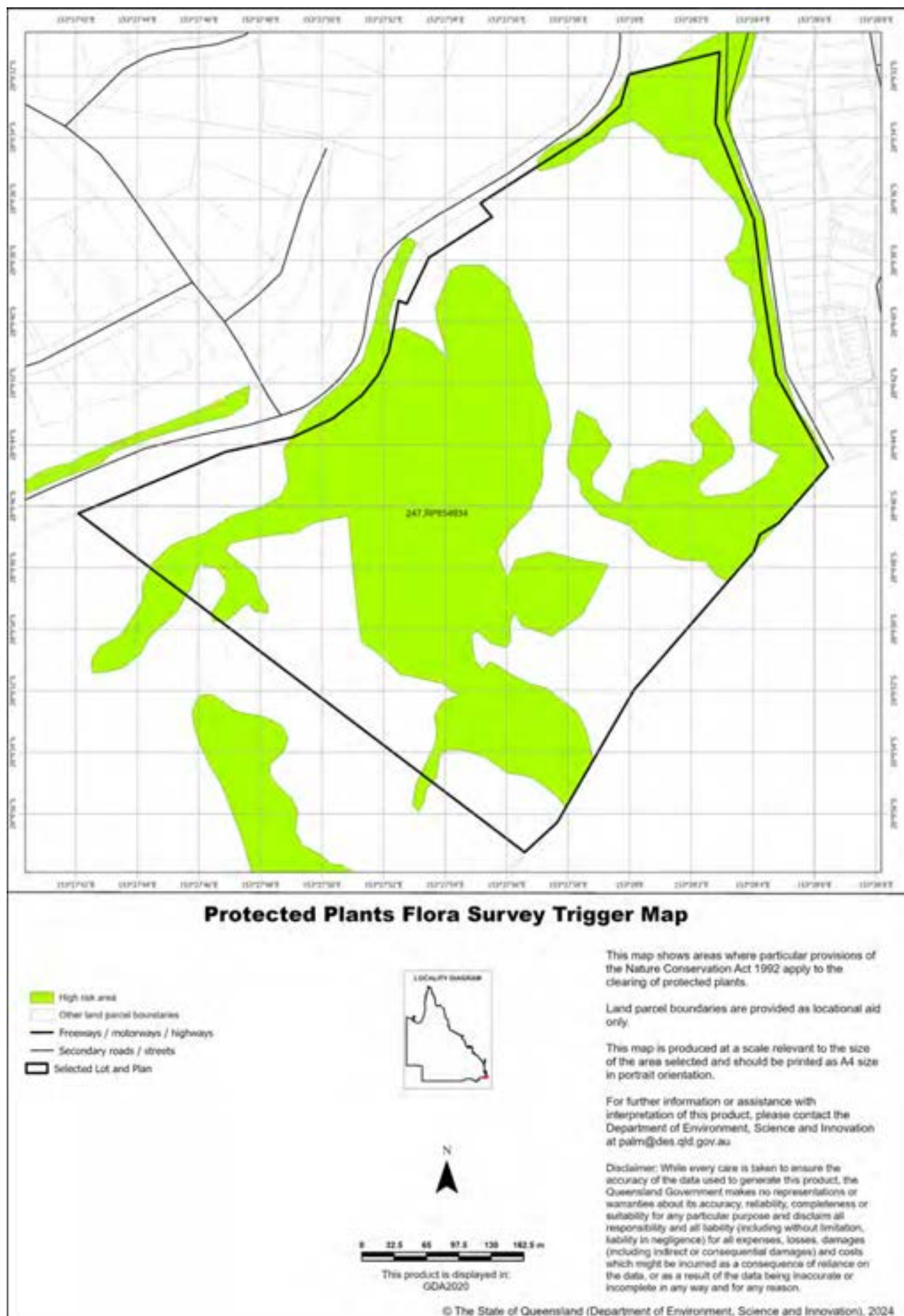
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4.1 Regulated vegetation management map



4.2 Vegetation management supporting map



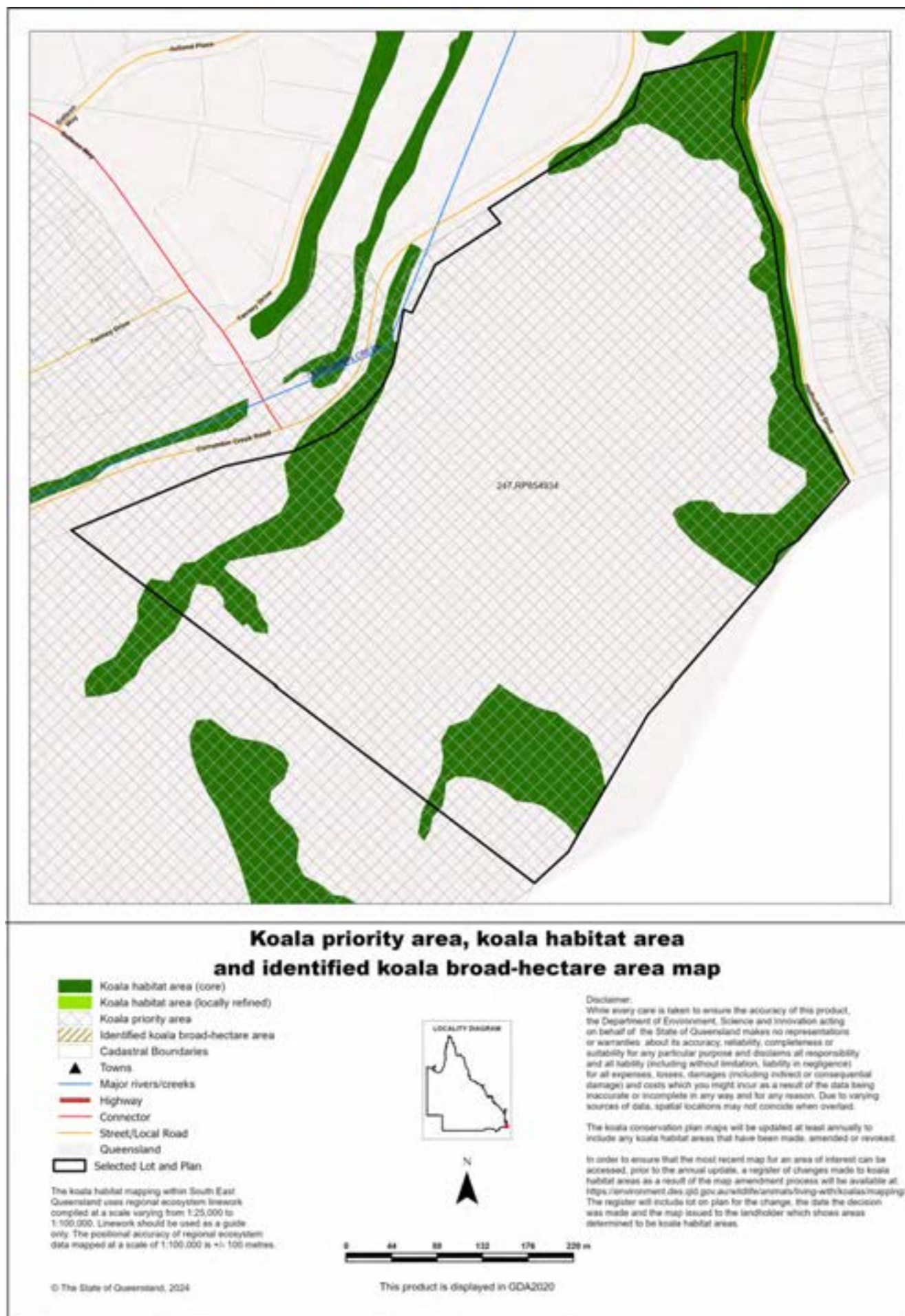


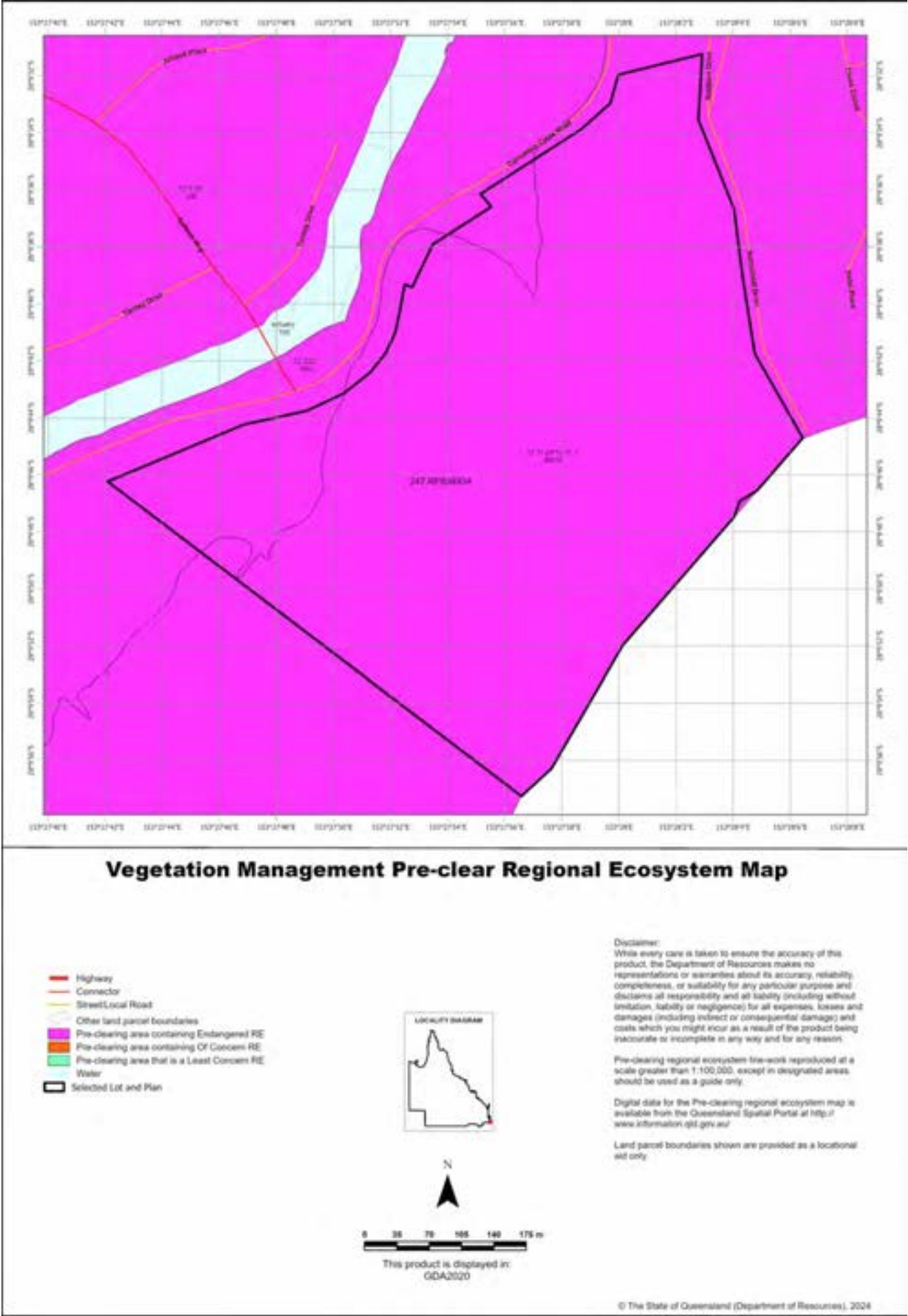
7. Koala protection framework details for Lot: 247 Plan: RP854934

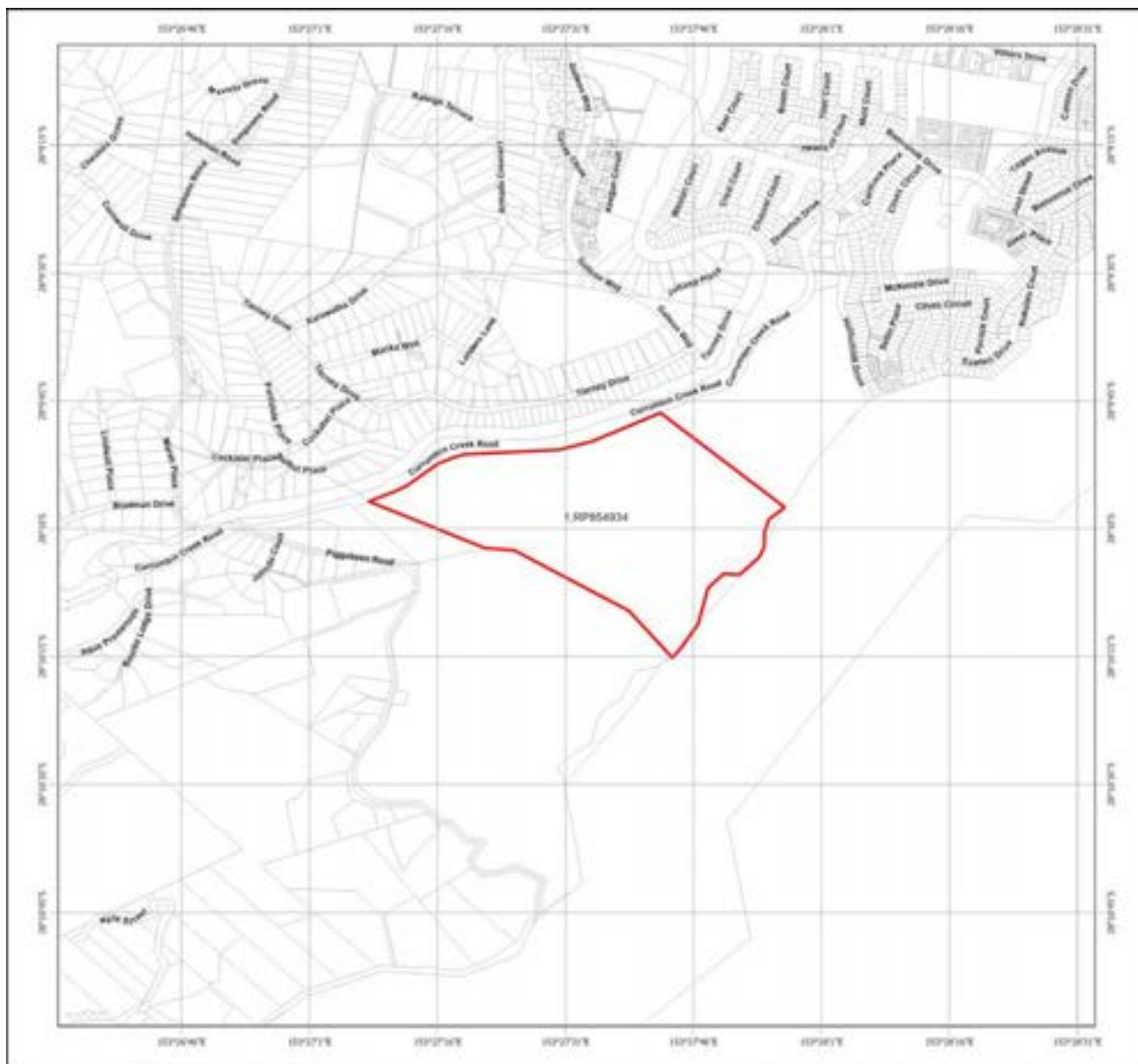
7.1 Koala districts

Koala District A

7.2 Koala priority area, koala habitat area and identified koala broad-hectare map







Map of Great Barrier Reef Wetland Protection Areas

- Coastal Boundary
- Wetland in a wetland protection area
- Great Barrier Reef wetland protection area
- Selected Lot and Plan



This product is displayed in GDA2020

Note:

This map shows the location of wetland protection areas which are defined under the Environmental Protection Regulation 2008. Within wetland protection areas, certain types of development involving high impact earthworks are made assessable under Schedule 3 of the Sustainable Planning Regulation 2009.

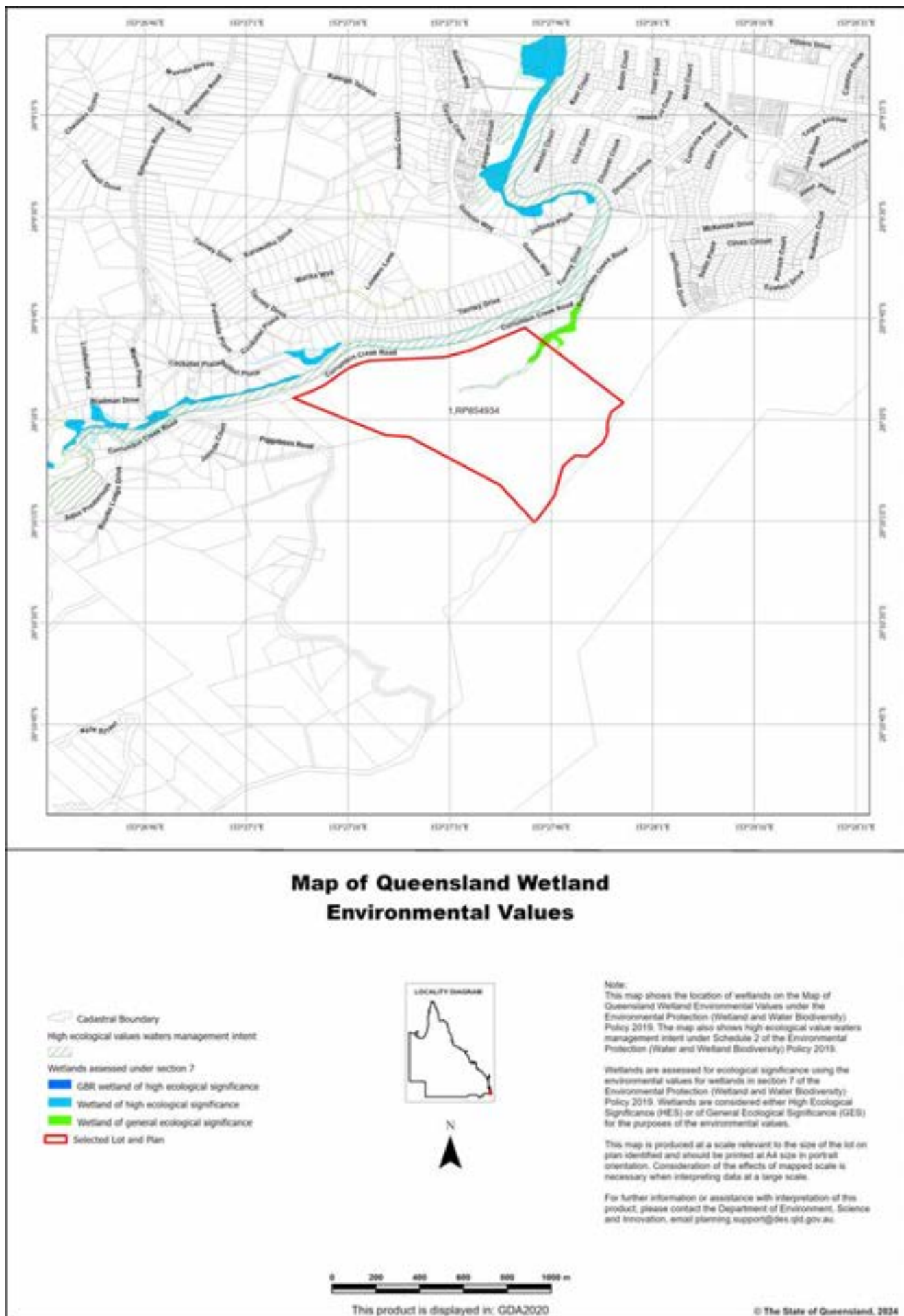
The Department of State Development, Manufacturing, Infrastructure and Planning is the State Assessment Referral Agency (SARRA) under Schedule 7 of the Sustainable Planning Regulation 2009 for assessable development involving high impact earthworks within wetland protection areas. The Department of Environment, Science and Innovation is a technical agency.

The policy outcome and assessment criteria for assessing these applications are described in the State Development Assessment Provisions (SDAP) State Code 9: Great Barrier Reef Wetland Protection Areas.

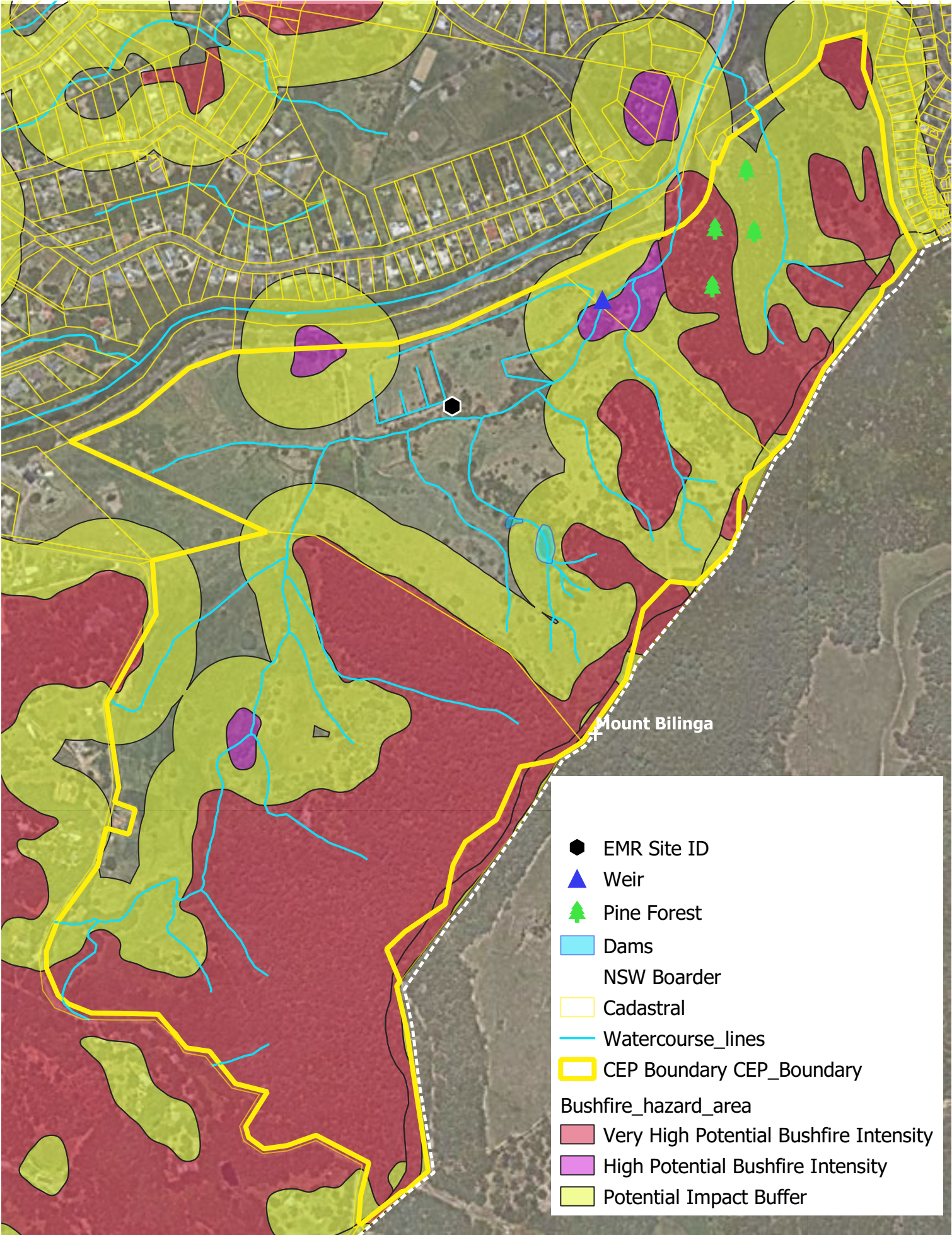
This map is produced at a scale relevant to the size of the lot on plan identified and should be printed at A4 size in portrait orientation. Consideration of the effects of mapped scale is necessary when interpreting data at a large scale.

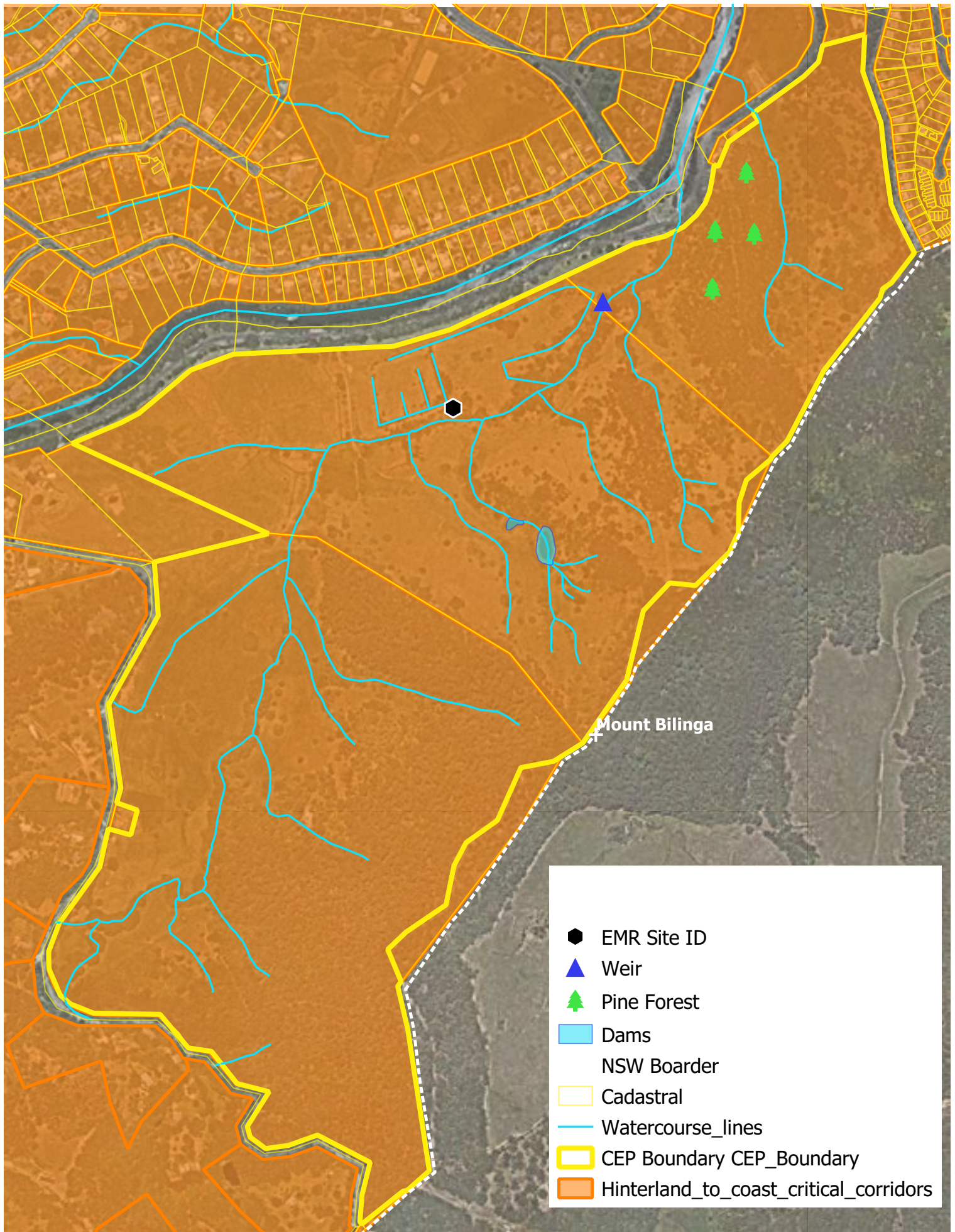
For further information or assistance with interpretation of this product, please contact the Department of Environment, Science and Innovation, email planning.support@des.qld.gov.au.

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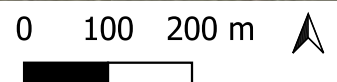


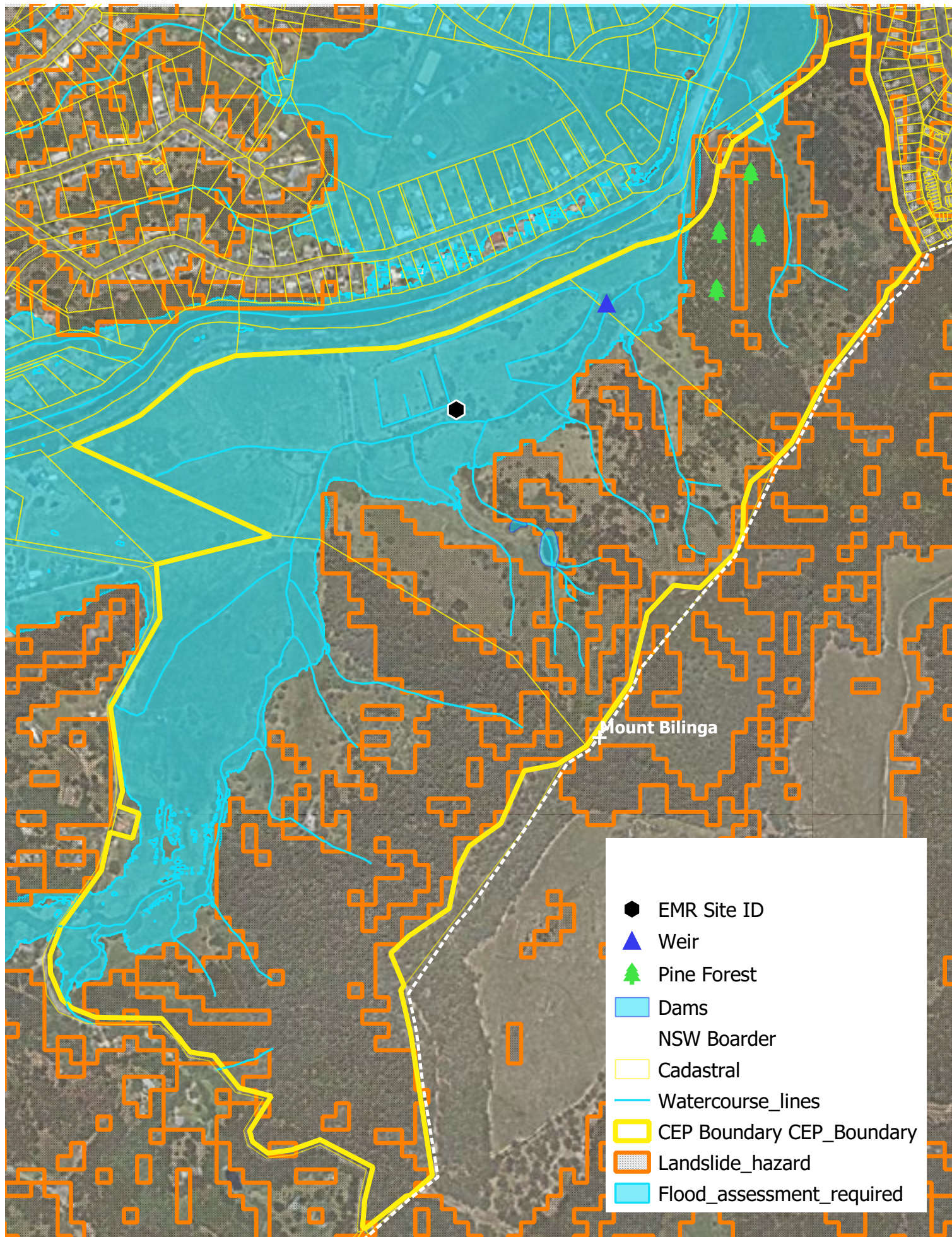
Attachment 5: City of Gold Coast Mapping

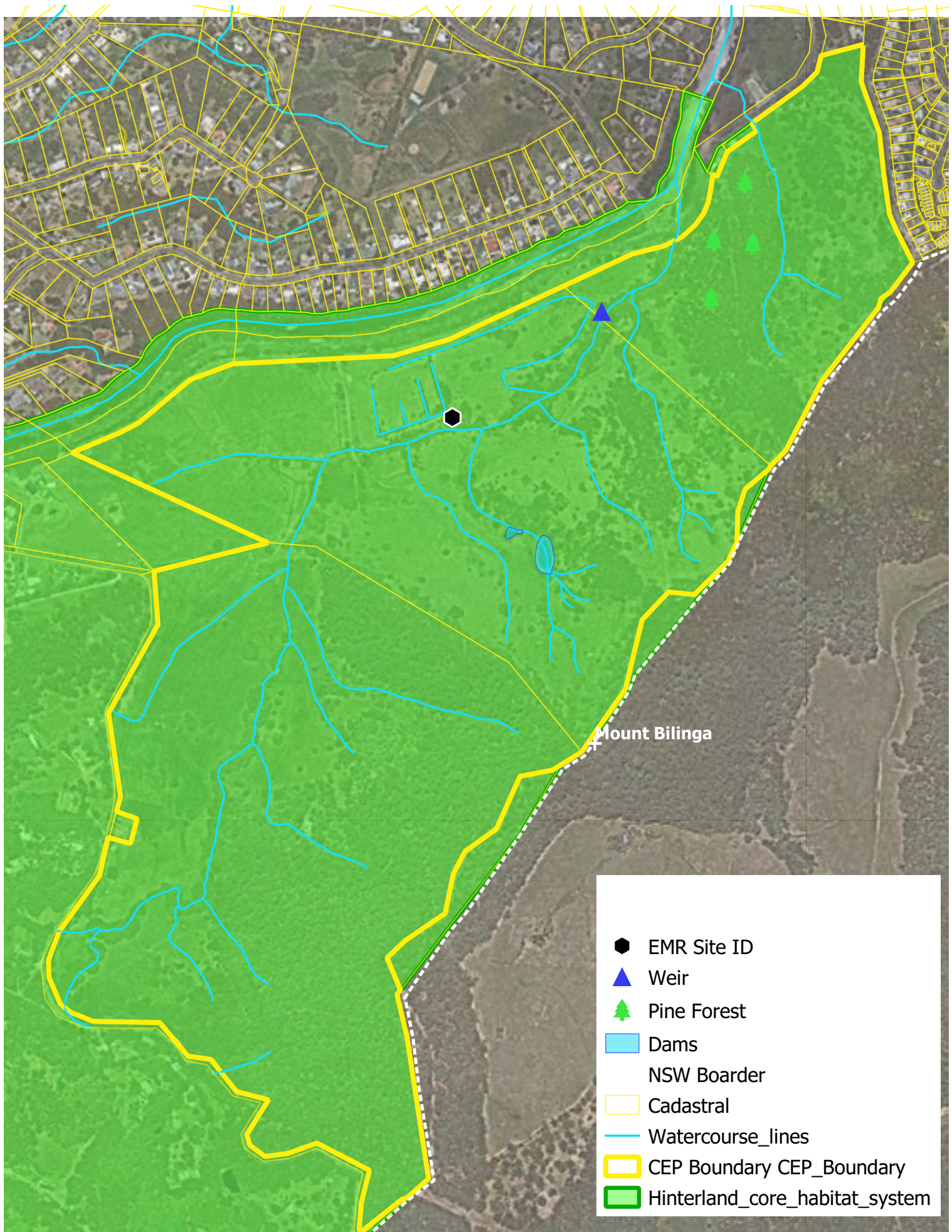


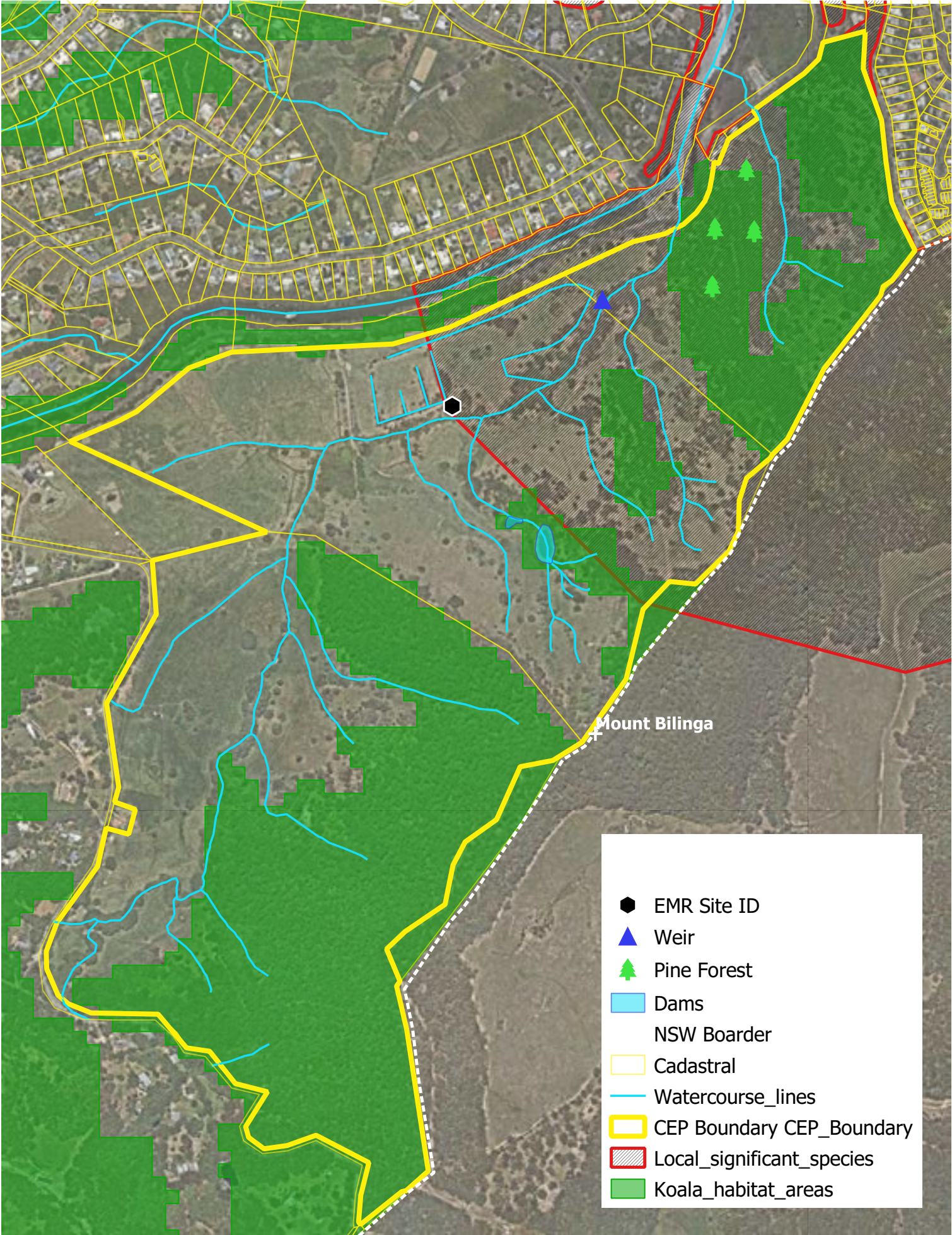


City of Gold Coast
Hinterland to Coast Critical Corridor

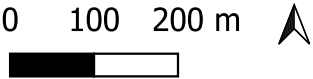


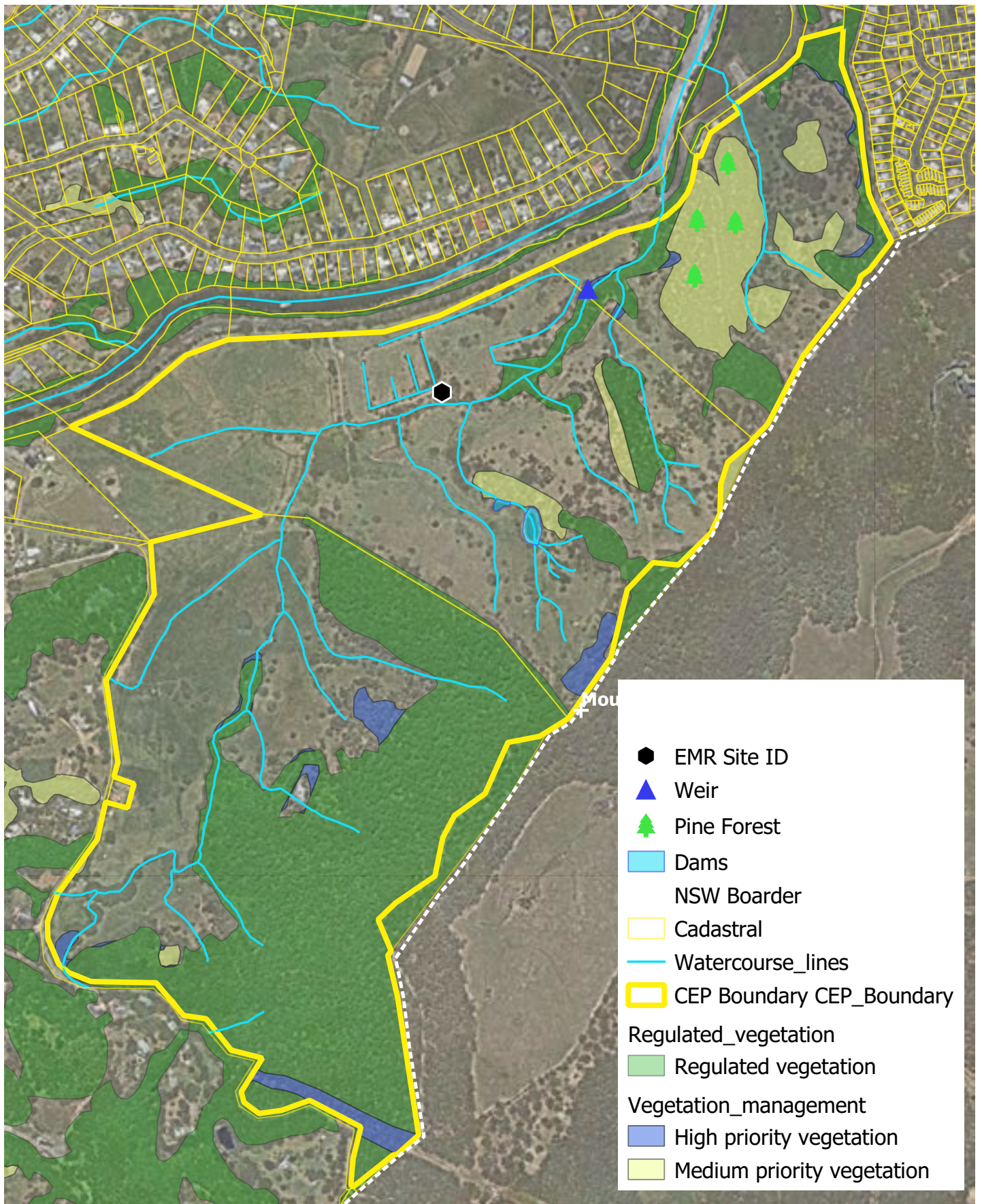






City of Gold Coast
Koala Habitat and Local Significant
Species





Attachment 6: Weed Table

Currumbin Eco-Parkland Weed Table

This Currumbin Eco-Parkland Weed Identification and Management Table has been developed by Gold Coast Botany and MRA Environmental to provide an identification guide, and present management information, for some of the more common weeds, including those with a higher potential impact at the Currumbin Eco-Parkland (*see below for weed definition). It is intended as a guide for both species identification and to the current accepted methods for treatment.

This Weed Table does not include all weed species at the site: recent surveys to date have observed over 190 non-native species, and more will become apparent through seasonal and natural regenerative changes. Some weeds are widespread, some are only locally dominant in isolated patches, or only occur in particular vegetation types, while others occur only in small populations, or as very few plants.

In the following Weed Table, species are grouped into plant types and then listed alphabetically. They are not in any order of location, dominance or management priority.

The suggested chemicals and control techniques herein are the current accepted methods at the time of writing. However, this information is to be used as a guide only. Laws and best practice techniques change over time, and it is the user's responsibility to check with local authorities as to the current methods and registered weed treatments.

The use of diesel or biodiesel used as an adjuvant (i.e. additive intended to improve the effectiveness of a herbicide) is not permitted on the Currumbin Eco-Parkland due to the possibility of contamination and of the fire hazard risks. Biodegradable adjuvants are available on the market and are a viable replacement for diesel and biodiesel.

Consult with labels and apply all herbicides strictly in accordance with the directions on the label. The requirement to comply with the label will override any treatment recommendations provided herein or any omission of information.

*What is a Weed?

For the purpose of this table, a Weed is a pest plant, whether exotic or alien native, that can self-regenerate to the extent that it impacts on and competes with local species endemic to the site.

For direct and relevant summary information on weeds, please see the following interpretation by Weeds Australia: <https://www.dcceew.gov.au/environment/invasive-species/weeds>



VINES

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL			
<i>Anredera cordifolia</i> (Madeira Vine)  	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 5 Score: 4.9 	Long lived climber. Thick fleshy foliage, heart shaped, green, the stems are slender and hairless, becoming woody with age. Prolific growth, spreads via brown aerial tubers that are warty in appearance. Also produces subterranean tubers that can grow up to 1m in length. Flowering is creamy white on spikelets during December to April. DO NOT CUT AT BASE OR ALONG VINE as it will keep growing and aerial tubers will remain alive. Scrape and paint at base is the most effective which will kill attached aerial tubers, spot spray method for leaves covering the ground. Follow up treatment for minimum 2 years.			
		Herbicide	Rate	Comments	
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	3–5mm layer of gel applied to scraped surface.	Scrape and paint method, (ideally at base) and along other mature areas of vine	
		Glyphosate (360g/L)	100mL/10L water	Spot spray method	
		Glyphosate (360g/L)	Undiluted	Scrape and paint as much stem as possible in 1m lengths on alternate sides. Gouge and paint ground tubers. Scrape and paint roots.	
		Fluroxypyr	30ml/10L water	Spot spray method	

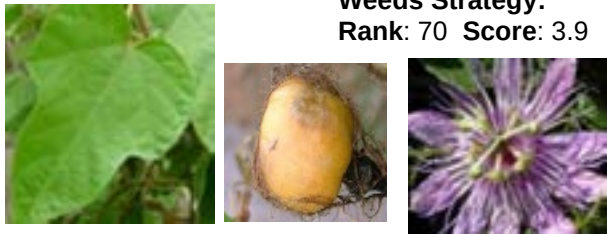
BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Asparagus plumosus</i> (Ferny Asparagus) 	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 57 Score: 4.1 	Long lived climber with woody and prickly stems. Small white six-petaled flowers followed by dark purple fruit. Stems grow from crowned base that is visible just above soil level.		
		For larger mature plants, stems should be cut from the crowned base, have a well dug into the base and glyphosate poured to pool and be taken up by plant over time to prevent future stem growth. Plant with lots of foliage can be spot sprayed, and stem scrape method sufficient for thicker woodier stems.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	200ml Gly 10L of water + S + D	Spot spray method, stem scrape
		Fluroxypyr 333 g/L (Starane™ Advanced)	30 to 60 mL per 10 L of water	Spot spray

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Desmodium uncinatum</i> (Silver-leaved Desmodim)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 64 Score: 44.9	Scrambling vine with deep tap root and orangey brown to green thick stems. Highly pubescent; hooked hairs on all parts of the plant including seeds, plant adheres easily to itself and surrounding flora creating dense mats. Groups of 3 leaflets each with a white longitudinal stripe and surfaced with silky hairs, stipels at the base of each leaflet. Flowers are pink to white with brown seeds in a flat pod. Spot spray shrub like dense mats of vine or individual seedlings; cut scrape and paint method applied to long sparse climbing portions.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1.5g MM in 10L water + S + D	Spot spray
		Glyphosate (360g/L)	200ml Gly 10L water + S + D	Spot spray

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Dolichandra unguis-cati</i> (Cat's-claw Creeper)   	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 6 Score: 4.9   	A rampant sprawling vine with robust and woody mature stems and a large tuber and root system. Leaves consist of two leaflets with distinctive three clawed tendrils that allow vine to cling to effected vegetation. Leaf can vary in colour (dark green, light green, new foliage is red/brown). Flowers are yellow with 5 tubular lobes and fruit is initially glossy green elongated glossy flattened capsules (before drying to pale brown). Often growing in discreet patches on steep areas and riverbanks either as a thick mat on the ground or at worst, covering trunks and climbing to smother the canopy, eventually toppling trees. Stems climbing up trees larger than ~2cm diameter are to be cut at head height then again at ~5cm above ground level. Remove this cut portion off the trunk and cut, scrape and paint the remaining stump. Smaller diameter stems to be peeled off the tree or shrub, bundled up onto the ground and foliar sprayed, as for any ground runners or juvenile growth. DO NOT dig tubers as they are difficult and time consuming to dig out and the large tuberous root mass of older plants cannot be removed without excessive soil disturbance. Digging tubers is regarded as inefficient and is likely to cause excessive disturbance to soil and neighbouring roots, many of which are of threatened species.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	3-5mm thick gel	Scrape and paint woody looking areas of vine
		Dicamba 500	4mL/1L under PERMIT 10533	Spot spray green vine and foliage
		Glyphosate (360g/L)	100ml:10L under PERMIT 11463	Spot spray green vine and foliage
		Glyphosate + Metsulfuron Methyl	Undiluted	Cut stump application. Apply a 3–5 mm layer of gel for stems less than 20 mm.

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Ipomoea cairica</i> (Five-leaf Morning Glory/ Mile-a-minute)	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 28 Score: 4.4	Rampant perennial climber grows in a twining habit and produces roots at vine nodes. Soft green leaves with five lobes, palmate in shape. Large purple tubular flowers, borne in clusters originating at leaf forks, flowers throughout the year. DO NOT cut at base, it will keep growing from mature parts of the vine. Once base is located carefully pull all runners, roll them up and hang in a loop away from ground. Scrape and paint base and woodier mature stolon. Spot spray of foliage dense ground creeper sections. Will require follow up treatment.		
		Herbicide	Rate	Comments
		Kamba M (Dicamba)	Up to 80mL/15L water under PERMIT 11463.	Spot spray. Apply using a minimum of 1500L/ha water. Use a wetting agent as per label instructions for non-crop situations. To be used where rain is not expected within a 4-hour period and after morning dew.
		Conqueror	53-75 mL/15L water under PERMIT 11463	Spot spraying where residual weed control is required. Add a wetting agent or spray oil according to label instructions.
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1.5g MM in 10L water	Spot spray of foliage and green vine

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Passiflora edulis</i> (Passionfruit)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 193 Score: 3.2 	Trifoliolate leathery deep green leaf on sprawling strong vine, flower has ring of blue, white and purple threads with green/white petals, flowers in summer and autumn months. Abundant fruits in spring and summer. Hand pull at the base where appropriate; spot spraying of green foliage effective, cut/scrape/paint method suitable at base of plant, unripe fruit on treated vine will not germinate, mature fruits seeds can germinate so best to bag and remove or spray with preemergent to be most effective.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1g MM in 10L water + S + D	Spot spray method
		Glyphosate (360g/L)	1 Gly:1.5 water	Cut scrape and paint method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Passiflora foetida</i> (Stinking Passionflower) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 70 Score: 3.9	Scrambling vine with sticky golden-brown hairs over most of the plant; stems produce thread like tendrils from the base of the alternately arranged leaves. Leaves are 3-5 lobed, soft & trident shaped. Fruit is green turning yellow when mature with yellowy hairs covering. Flowers can be pink/purple/white and borne from singular leaf forks; flowering occurs during autumn winter and spring. Hand pull at the base when small; overspray/spot spray method for vine smothering ground, gather in closer bundle to avoid off target spraying. Cut scrape and paint base if tap root cannot be pulled.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1g MM in 10L water + S + D	Spot spray method
		Glyphosate (360g/L)	1 Gly:1.5 water	Cut scrape and paint method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
    Passiflora pallida (Corky Passionfruit) Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 37 Score: 4.2		Perennial climber or creeping vine that has extensive twining tendrils, leaf is leathery and alternate, hairless, has similarities with <i>Passiflora suberosa</i> ssp. <i>litoralis</i> e.g.: <i>Passiflora pallida</i> <i>P. suberosa</i> ssp. <i>litoralis</i>		
	Mature stems, thick corky white bark	Yes	Yes	
	Leaves	Sometimes entire or with lateral lobes	Always 3-lobed	
	Lobes	<10mm often unequal	>10mm lobes equal	
	Laminar nectaries on leaf underside	Always absent	Present on at least some leaves	
	Early growth of stems are green while older stems develop a thick corky white coloured bark. Small green/white/purplish flowers and small round green to deep purple-blue berry. Reliable control is the manual removal of all in-ground roots, then bunch the ground foliage into dense mats to spot spray. Also spot spray emergent seedlings.			
	DO NOT confuse with the native <i>P. herbertiana</i> which has a larger fruit, green when ripe, older stems not corky, lobes on leaf broader and shallow.			
	Herbicide	Rate	Comments	
	Glyphosate (360g/L)	100ml/10L water under PERMIT 11463	Spot spray in dry land areas taking care to not hit off target plants.	
	Kamba	Up to 80mL/15L water under PERMIT 11463	Spot spray using a wetting agent as per label instructions for non-crop situations.	
Glyphosate + Metsulfuron Methyl	100ml Gly + 1g MM in 10L water + S + D	Spot spray		
Glyphosate (360g/L)	1 Gly:1.5 water	Cut scrape and paint method		

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL																	
<i>Passiflora suberosa</i> ssp. <i>litoralis</i> (Small Passionfruit)	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 37 Score: 4.2	Perennial climber or creeping vine that has extensive twining tendrils, leaf is leathery and alternate, has similarities with <i>Passiflora pallida</i> e.g.: <table><thead><tr><th></th><th><i>Passiflora pallida</i></th><th><i>P. suberosa</i> ssp. <i>litoralis</i></th></tr></thead><tbody><tr><td>Mature stems with thick corky white coloured bark</td><td>Yes</td><td>Yes</td></tr><tr><td>Leaves</td><td>Sometimes entire or with lateral lobes</td><td>Mature leaves always 3-lobed</td></tr><tr><td>Lobes</td><td><10mm often unequal</td><td>>10mm lobes equal</td></tr><tr><td>Laminar nectaries on leaf underside</td><td>Always absent</td><td>Present on at least some leaves</td></tr></tbody></table>				<i>Passiflora pallida</i>	<i>P. suberosa</i> ssp. <i>litoralis</i>	Mature stems with thick corky white coloured bark	Yes	Yes	Leaves	Sometimes entire or with lateral lobes	Mature leaves always 3-lobed	Lobes	<10mm often unequal	>10mm lobes equal	Laminar nectaries on leaf underside	Always absent	Present on at least some leaves
	<i>Passiflora pallida</i>	<i>P. suberosa</i> ssp. <i>litoralis</i>																	
Mature stems with thick corky white coloured bark	Yes	Yes																	
Leaves	Sometimes entire or with lateral lobes	Mature leaves always 3-lobed																	
Lobes	<10mm often unequal	>10mm lobes equal																	
Laminar nectaries on leaf underside	Always absent	Present on at least some leaves																	
		Early growth of stems are green while older stems develop a thick corky white coloured bark. Small green/white/purplish flowers and small round green to deep purple-blue berry. Reliable control is the manual removal of all in-ground roots, then bunch the ground foliage into dense mats to spot spray. Also spot spray emergent seedlings.																	
	DO NOT confuse with the native <i>P. herbertiana</i> which has a larger fruit, green when ripe, older stems not corky, lobes on leaf broader and shallow.																		
		Herbicide	Rate	Comments															
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1g MM in 10L water + S + D	Spot spray method															
		Glyphosate (360g/L)	1 Gly:1.5 water	Cut scrape and paint method															
		Glyphosate (360g/L)	100ml/10L water under PERMIT 11463.	Spot spray in dry land areas taking care to not hit off target plants															
		Kamba M (Dicamba)	Up to 80mL/15L water under PERMIT 11463	Spot spray using a wetting agent															



BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Passiflora subpeltata</i> (White Passionflower)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 63 Score: 3.9	Hairless slender vine, twirled tendrils at the base of alternately arranged soft three lobed leaves, one distinguishing feature are the leafy stipules where the petiole meets the stem (Note: the similar native <i>P. aurantia</i> does not have stipules). Colour of stem and leaves is pastel-like pale blue/white/green. Large white flower throughout spring and summer. Fruit is leathery pale green/blue/white and pastel yellow when mature. Taproot is shallow and small and relatively easy to hand-pull. Cut scrape paint method not appropriate, (base and whole stem of plant is frail and thin), so best to hand pull base from soil and hang up to decay. Spot spray method appropriate with high penetrant rate and sprayed longer than point of run off because leaf is very hydrophobic and <u>will not absorb herbicide easily</u>, DO NOT confuse with the native <i>P. aurantia</i> which has a smaller leaf and no stipules, flowers turn pink to red as they mature.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1g MM in 10L water + S + D	Spot spray method
		Triclopyr 240 g/L + picloram 120 g/L (e.g. Access	1 L per 60 L diesel replacement	Basal bark
		Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	50 mL per 10 L water	Spot spray Can be used where no germinating broadleaf desirables are expected within six months.

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Solanum seaforthianum</i> (Brazilian Nightshade)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 55 Score: 4	Long lived scrambling vine, green hairless leaves deeply lobed with 3-9 lobes extending almost to the mid rib on stalks. Striking blue/violet/purple starlike flowers arranged in branched clusters in leaf forks, each cluster containing 10-50 flowers with bright yellow anthers. Flowering spring and autumn. Fruit shiny globular berries that start green and turn red when mature and contain red-black flat seeds. Creamy bark coloured deep taproot. Pulling from base and gathering in bundle to spray or hang, skirting and treating base with cut scrape and paint method if large base is found, and spot spraying foliage dense areas of vine; are all effective.		
		Herbicide	Rate	Comments
		Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	35-50 mL per 10 L water + Uptake Spray Oil or an equivalent wetter must be used at a rate of 50 mL/10 L.	Spot spray, do not use within 5 m of waterbodies ensure spray covers all foliage and stems as incomplete application will result in regrowth
		Triclopyr 300 g/L + Picloram 100 g/L with Metsulfuron-methyl 600 g/kg (Various products)	35-50 mL per 10 L water plus 1 g metsulfuron-methyl per 10 L water + Uptake Spray Oil or an equivalent wetter must be used at a rate of 50 mL/10 L	Spot spray, do not use within 5 m of waterbodies ensure spray covers all foliage and stems as incomplete application will result in regrowth
		Fluroxypyr	30mL/10L water	Spot spray
		Glyphosate (360g/L)	1 Gly:1.5 water	Cut scrape paint method

FERNS

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Nephrolepis cordifolia</i> (Fishbone Fern)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a	Fern has upright or arching fronds about 75cm tall and grows in thick clumps; stolons creep across soil and form dense mats. Spores are contained in sori structures. Rhizomes in the soil are covered in brown scales and have a fleshy tuber attached; roots are short, matted and fibrous. Physical removal appropriate if singular plants are isolated or if whole mat can be lifted from soil. Herbicide spray effective with multiple follow up treatment required.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water	Spot spray method
		Metsulfuron Methyl	1g MM:10L	Spot spray method

MONOCOTS/GRASSES

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Andropogon virginicus</i> (Whisky Grass) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 155 Score: 3.6	Long lived tufted grass with tall (0.5-1m) older stems that stand erect with reddish/brown colour during summer. Elongated flat of folded basal leaf form, upright stems are branched and glabrous and leaves have a pubescent leaf sheath that encloses the stem, stem meets blade with fluffy white membranous seeding structure atop the plant. The leafy seed heads are narrow and have numerous quadruplets of tiny branches, the stalks of these branches bear several flower spikelets among clusters of long white hairs.		
		Spot spraying the tuft and stems effective; plant can look dead already from treatment so ensure treatment is comprehensive.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Megathyrsus maximus</i> var. <i>maximus</i> (Guinea Grass) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 20 Score: 4.6	Perennial, large, tufted clumping tall (2-3m) erect grass with short underground rhizome stems. Can be vibrant green or half green half light brown colour. Sparsely hairy stems, sheath encloses stem and a spreading basal leaf blade, blade is flat, and edge is rough to touch. Seed head loosely branched and lowest branches arranged in cluster whorl, flower spikelets are small oval oblong shape and may be green/red/purple coloured and are hairless. <u>Minor differences to <i>Megathyrsus maximus</i> var. <i>pubiglumis</i>.</u>		
		Spot spray method is successful with full tuft coverage and seed head coverage.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Melinis minutiflora</i> (Molasses Grass)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 38 Score: 4.5	Perennial soft light green erect grass with straggling or trailing mauve/brown stems that are 2m long, flowering stems are more upright, pastel green or pinkish and taller. Narrow alternate leaves are covered in sticky hairs and bunch toward ends of branches. Slender stems are very hairy and can produce roots where the lower joints meet soil. Flower is pale pink/red/purple seed head and is branched cluster borne at the tips of the flowering stems, numerous spikelet flowers that become narrow and browner when mature, seeds are ovate. Shallow and sprawling root base. Has a sickly sweet smell like that of sugar cane, can aid with identification differentiation from <i>Urochloa mutica</i> (Para Grass). Spot spray method is successful with full tuft coverage and seed head coverage.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Paspalum mandiocanum</i> (Broad-leaved Paspalum)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 72 Score: 4	Weakly clumped perennial grass, glossy deep green and broad leaves. The lower parts of the stems produce roots where they contact the ground, resulting in the radial spread. Flowering stems are usually spreading or low growing with upright tips, hairy leaf sheath encloses the stem with a spreading leaf blade. The leaf sheaths are somewhat pubescent, particularly near where they join the leaf blade. Seed heads at tips of stems, flowering spikelets densely arranged in four rows on seed head branches and become feathery stigmas with mauve colour. Spot spray method is successful with full tuft coverage and seed head coverage.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Setaria sphacelata</i> var. <i>sericae</i> (South African Pigeon Grass) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 85 Score: 3.8 	Dense, clumping and tall tufted perennial, base of young shoots is strongly compressed into a fan shape and have hot pink colour in centre with a white tinge, leaf has elongated broad shape. Flower/seed structure is a thick cylindrical spike-like panicle, often drooping, varying in colour from brown to purplish brown. Spot spray method effective with glyphosate; however, if the base stays dense and moist it will reshoot. Follow up spray required to ensure whole plant properly treated. Hand pulling smaller tufts is effective.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Sporobolus pyramidalis</i> (Giant Rat's-tail Grass) 	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 2.4 Score: 4.8 	Perennial, upright tall tussock with long, narrow, rolled, and flat hairless leaf blades. Seed head looks like dark rats' tail when immature and branches out in an elongated pyramid shape that has alternating, and dark brown and sticky seed head. Spot spray with glyphosate, follow up treatment required.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

HERBS/SOFT WEEDS

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Ambrosia artemisiifolia</i> (Annual Ragweed) 	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a 	Shallow rooted annual herb growing 0.5-2m tall. Stems are brownish, green, pink, or red to dark red. Leaves are grey green and paler on underside, pubescent and deeply lobed fern like appearance. Rosette shape at the plants base in young plants, opposite formation at lower part of plant and alternate higher up the stem. Flowerheads differentiate between gender, male flowerheads have cream yellow colour and are cup shaped and droop downwards with 10-100 tiny flowers, female heads are whitish green and are upright and have a single tiny flower with no petals. Hand removal of smaller plants from soil. Spot spray method effective.		
		Herbicide	Rate	Comments
		Dicamba 750 g/L (Kamba® 750)	87 mL per 15L of water. Add a surfactant	Spot spray prior to flowering
		Metsulfuron Methyl	1.5g MM:10L water + S + D	Spot spray method
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Asparagus aethiopicus</i> 'Sprengeri' (Asparagus Fern, Ground Asparagus)  	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 57 Score: 4.1 	Low growing herbaceous plant with dense-creeping, long-arching stems, with spikes that arise from a tuberous rootstock. Small pink and white flowers are arranged in dense elongated clusters in forks of tiny scale leaves. Glossy berry like fruit initially green and maturing red and can be present all year. Roots have large leguminous tubers that grow from crown above the soil, they spread from the base amongst shallow fibrous roots and have a strong grip in the soil. Small plants can be dug if complete crown holding tubers is removed (digging is more viable in sandy soils when tubers aren't held strongly in soil). Once dug, crown and tubers should be bagged and disposed of. Spot spray, ideally between flowering and berry formation. Use sufficient spray volume to thoroughly and uniformly wet target plant.		
		Herbicide	Rate	Comments
		Kamba 500 (Dicamba)	Up to 130mL /15L water (under PERMIT 11463)	Spot spray method
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5 MM in 10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Callisia repens</i> (Turtle Vine)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a	Fleshy succulent with creeping and clumping stems, much branched and produce roots at their nodes. and produces short semi-erect flowering stems. Leaves are small ovate shape and alternately arranged, densely clustered along the short sheath that encloses them. Overall pale deep green colour with purple tinged. Flowers are in small stalkless clusters in forks of the reduced upper leaves, grow along narrow green sepals with 3 white flowers, flowering in summer through autumn. Complete removal of whole or part of the mat can be s effective initially; however this must be bagged and disposed of. Spot spray method effective with constant follow up.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5 MM in 10L water + S + D	Spot spray method
		Fluroxypyr	90ml/10L water	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Colocasia esculenta</i> (Taro, Elephant Ears)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a	Large herbaceous fleshy plant 1m tall or more, produces large tuberous creeping rhizomes that are either underground or slightly exposed on soil surface. Leaves are alternately arranged and are clustered at the tips of the rhizomes, large heart shape with wavy margins with rounded or short tips. Borne from thick spongy stalks connected on undersides of leaf blades. Colour ranges from completely green, though, naturalised ornamental versions are deep purple and leaf blades are bluish green with purple veins. Flowers are gendered, female (green) form at base and male (white) at tip, male flowers are sterile, fruit are small egg oval berries start green and turn orange or red once mature. The taro root is a thick bulbous, edible, beetroot looking root that is shallow to the top of the surface of the soil. Where feasible, removal of whole plant by digging, with all corms and tubers removed to prevent spread, with follow up critical. Cut scrape and paint method and applying glyphosate also effective. Follow up treatments are recommended at 6 weeks intervals until control is completed (Queensland Department of Primary Industries and Fisheries, 2011).		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	Undiluted	Cut scrape and paint method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Commelina benghalensis</i> (Hairy Wandering Jew)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 122 Score: 3.5	Creeping green or mauve thick stems that assume ascending position and branch and root at the nodes, form dense fleshy masses, and produce white underground rhizomes. Leaves are ovate, wide at base and narrow at petiole. The flowers are subtended by bracts with their edges fused to form a flattened funnel-shaped spathe, have three lilac blue petals, the lower much smaller than the two laterals and occasionally white. Fruit is pear shaped with 5 seeds in capsule and are long ribbed and grey in colour. Repeated spot spray method most effective with preemergent use favoured. Mechanical slashing and hand pulling is ineffective in the long term as cut stems quickly regenerate (especially in wet conditions). DO NOT confuse with the native <i>C. diffusa</i> which is less rampant, leaves are more widely spaced on the stem, and the lower flower petal is the same size as the upper two.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spray method
		Fluroxypyr	90ml/10L water	Spot spray method
		Metsulfuron Methyl	1.5g mm:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Hedychium gardnerianum</i> (Kahili Ginger)   	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 171 Score: 3.6	Large herbaceous perennial with erect stems to 2m tall, extensive creeping underground rhizomes and tall annual flowering stems, occasionally an epiphyte on trees. Large narrow green glossy leaves are alternately arranged with long sheath extending from base. Flowers are fragrant and borne in spike like clusters at tips of the stems, yellow with three large petals and fourth spoon like structure attached. Stamen is long and bright red and when mature opens up as orange; fruit is red. Small individual plants can be removed by hand but disposed of into general waste. In some situations whole plants including rhizomes can be dug up, though this is costly and potentially damaging and not the preferred method. Overspray methods are best for large infestations. Cut stump and basal bark applications have been used in Australia. In New Zealand, successful control has been achieved using metsulfuron methyl, applied as a foliar spray (Auckland Regional Council 2002).		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200 mL of glyphosate plus 1.5 g of Metsulfuron methyl in 10 L of water	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Hypoestes phyllostachya</i> (Polka-dot Plant)	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 172 Score: 3.5	Perennial herb grows in thickets, dark green opposite leaves with white or pink spots/spatter on top, pale green colour underneath, with leaves getting smaller nearer to tip of stem. Stems are four sided, branched and pubescent with white hairs, losing hairs when more mature. Flowers are purple tube shaped on upper stem and grow at leaf forks. Fruits are small hairless capsules that are green initially and brown when ripe, both fruit and flowers are present during summer through to winter. Spot spray method with repeat applications. Manual removal of whole plant/roots and bag to dispose of is effective for small areas. Requires follow-up to control the significant seed bank regrowth.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spray method
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Senecio madagascariensis</i> (Fireweed)	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 82 Score: 3.8	This annual bright green sparsely bunched herb grows primarily in open sunny pasture areas. It has erect branches and fleshy narrow smooth, toothed, or lobed leaves that are stalkless and are alternatively clasped around the stem. Flowers are small, yellow, daisy like with up to 15 petals in clusters at end of branches emerging from a cup of modified bracts, more abundant on some plants than others. Seeds are small and light cylindrical shape, downy on the surface and attached to fine white feathery hairs that aid in dispersal via wind. Roots are fibrous and disperse from central taproot. Slashing (where applicable) prior to 25% of plants flowering causes dying off at end of spring. Spot spraying in late autumn yields best results. Hand weeding of small, isolated patches effective if bagged and disposed of.		
		Herbicide	Rate	Comments
		Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	Rate: 35 mL in 10 L of water	Spray flowering plants, cover the foliage thoroughly
		Fluroxypyr 140 g/L + Aminopyralid 10 g/L	50 mL in 10 L of water	Spray flowering plants, cover the foliage thoroughly

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Sphagneticola trilobata</i> (Singapore Daisy)   	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 16 Score: 4.6	Creeping perennial herb that forms very dense moisture retaining mats, has fleshy dark green glossy leaves that are paler underneath. Leaves are usually toothed, three pointed lobes in opposite pairs along the stem; stems are rounded pubescent green or reddish in colour up to 2m long. Flowers are yellow-orange daisies with 4-14 petals with finely toothed tips, one flower per stalk ever-present. Roots are very shallow and root at each node, have a purple colour, are short and fibrous making plant very pliable. Spot spraying is most effective when preemergent is used and repeated treatment is used for follow up, is a dense plant with high water quantity so a high dose of penetrant also favoured. Manual removal is difficult and yields varying results as regrowth can form from very small parts and seeds are prolific.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1g MM in 10L water	Spot spray method
		Metsulfuron Methyl	1g/10L water	Spray thoroughly to wet all foliage. Not to be used near waterways.

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Tradescantia fluminensis</i> (Wandering Jew, Trad)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 58 Score: 4.1	Dark green succulent groundcover that forms dense mats. Can have striated colouring with pink, white or purple variegated leaves. Stems are green and fleshy branched structures that are swollen at the node and sometimes upright. Leaves are oval or lance shaped with prominent midveins, attached to the stem via sheath with fine hairs. Flowers are white with three petals and three green sepals, present in spring to summer. Roots are thin and fibrous and purple in colour; grows from nodes of stems. Repeated spot spraying is required with sufficient follow-up. DO NOT confuse with the native <i>Aneilema acuminata</i>, which is far less rampant, has a more upright habit, has smaller purply-green leaves and openly spaced white petals.		
		Herbicide	Rate	Comments
		Starane Advanced (Fluroxypyr 333 g/L)	90 mL in 10 L of water	Foliar application. Re-treatment necessary
		Glyphosate + Metsulfuron Methyl	100ml Gly + 1.5g MM in 10L water + S + D	Spot spray method

WOODY WEEDS/SHRUBS

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Ardisia crenata</i> (China Bell)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a	Perennial broadleaved subshrub growing 1.8m tall in multi stemmed clumps. Leaves are alternate dark green waxy glabrous with crenate margins and calluses, elongated oval shaped with jagged (crenate) edges. Flowers are pale pink with yellow anthers and droop below the foliage. Fruit are bright red berries that can remain on the plant year-round. Herbicides are effective; however, spot spray varies in effect with waxy leaves preventing herbicide uptake. Application to mature plants is effective with follow-up for seedling emergence and reshoot suppression.		
		Herbicide	Rate	Comments
		Starane Advanced (Fluroxypyr 333 g/L)	30 to 60 mL per 10 L water	Spot spray
		Metsulfuron-methyl	10 g per 1 L of water + S	Wipe onto leaves
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Baccharis halimifolia</i> (Groundsel)  	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 2 Score: 4.8	Erect branched perennial shrub 1.5-3m tall (max 7m). Pale green leaves are diamond shaped and coarsely toothed on upper half of leaf, texture is waxy and hairless and alternate along the stem. Stems are multi branched with lengthwise ribs, green when young and brown and woody when mature. Flowers are gendered and abundant and enclosed at the base by green bracts in clusters. Male flowers are yellow in globular heads, female flowers are white and fluffy and mature later than male, flowers during autumn. Roots are a shallow singular deep branching taproot with fibrous lateral roots. Young plants can be dug out completely (have a shallow root system). Complete coverage with herbicide mix (rates may vary depending on size of bush). Basal barking and cut scrape paint method also effective.		
		Herbicide	Rate	Comments
		2,4-D 300 g/L + Picloram 75 g/L (Tordon® 75-D)	65 mL per 10 L of water	Spray actively growing plants, thoroughly covering all of the foliage
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump. Apply a 3–5 mm layer of gel for stems less than 20 mm
		Glyphosate (360g/L)	200ml Gly: 10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Cestrum parqui</i> (Green Cestrum)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 59 Score: 3.9	Also <i>C. nocturnum</i> . Shiny to dark green leaved shrub to 2-3m tall, immature stems are whitish and mature branches are woody, light green and brittle. Leaves are alternately arranged, lance shaped and pointed at both ends with smooth edges and are foul smelling when crushed. Flowers are yellow or green trumpet shaped clusters with triangular petals, pungent smell during day and sweet smelling in evening. Fruit are shiny egg-shaped berries, green when young and black when ripe (white on <i>C. nocturnum</i>) and are in clusters. Fruiting and flowering present in spring through to autumn. Spot spraying, basal barking, cut stump, cut scrape paint methods all effective.		
		Herbicide	Rate	Comments
		Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	50 mL in 10 L of water	spot spray method
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Lantana camara</i> (Lantana)  	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 1 Score: 5	Much branched sprawling dense erect shrub growing 2-4 tall, can also grow like a vine if given support by other vegetation (can reach >15m in height). Stems are spiky, square, green when young and light brown and smoother when mature. Leaves are egg shaped with toothed margins, in pairs opposite along stems on short stalks. Underside is soft and pubescent. Leaves have a distinctive fragrance when crushed. Small flowers are in dense clusters (20-40 flowers). Different colours present depending on type of lantana, location, age and time of year. Colours range from pink, red, orange, white, pink edged red. Fruit are fleshy small berries that are grouped on top of stem, becoming bluish black to purple when mature and each contain single stony seed at centre. Larger plants to be hand pulled or cut, scraped and painted. If pulled, chop up into ~50cm portions which speeds up decomposition, improves access for follow up spray runs and reduces frames/ladders for exotic vines and fires to climb up. Actively growing plants with a high amount of foliage are effectively treated by herbicide, basal barking, though cut stump, cut scrape and paint methods are best for stressed straggly plants or large plants with wide thick masses of branches from a thick base.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Basal bark or cut stump methods If diameter of stump is > 20mm. Works best during active growth stages. Apply within 15 seconds of making the cut. Use 5mm gel layer for woody stems
		Metsulfuron Methyl	1g/10L water	Spray to thoroughly wet all foliage and stems

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Murraya paniculata</i> (Mock orange)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 139 Score: 3.6 	Bushy shrub growing 2-4m tall, stems minutely pubescent and older stems are woody and grey in colour and eventually become fissured and rough. Compound, glossy green narrowly oval leaves are alternately arranged along stems and borne on stalks with 3-9 leaflets. Fragrant white flowers borne in clusters, fruit is bright green maturing to orange or red shaped berries and contain 2 yellow seeds. Hand pull smaller plants. Stem injection once stump is thick enough to not have drill split or completely penetrate stump, cut scrape and paint method and basal bark methods all effective.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application
		Glyphosate (360g/L)	Glyphosate (360g/L)	Stem injection / cut stump application

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Ochna serrulata</i> (Mickey Mouse Plant) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 22 Score: 4.5 	Perennial shrub that grows 2-3m tall with black and red berries. Stems are green or bronze when young, brown when older and covered in tiny lumps. Leaves are light to dark green and bronze with new growth, alternate along stem and narrow and oblong shape with <i>finely toothed edges</i> , wavy overall on short stalks. Flowers have 5 yellow petals. Fruit is green turning black when ripe and oval shaped and have five red sepals at base of berry fruit. Roots are woody and deep, even in small plants, and are kinked along their taproot. No manual removal as they will break at kink of taproot. Spot spraying or cut scrape and paint method, or cut stump, depending on stem thickness.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spray method
		Glyphosate + Metsulfuron Methyl	1g MM added to Gly:1.5 water	Cut drill and fill – mature plants
		Glyphosate (360g/L)	Undiluted	Scrape (lightly) and paint – juvenile plants
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undilute	Cut stump

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Psidium cattleianum</i> (Cherry Guava) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a  	Evergreen shrub that grows >3m tall), forms dense thickets. Bark is smooth with fine hairs, mature bark is grey to reddish brown, outer layers of bark peel away exposing inner layers. Shiny leaves are pale green oval shape tapering to a pointy end with smooth edges. Flowers are fluffy white. Fruit is a round fleshy golf ball sized berry starts green to purple as it ripens. Edible flesh when ripe; seeds are round, tough and plentiful. Manually uprooting small seedlings removing whole root structure is effective. Herbicide is best method of control; cut stump, basal bark, and stem injection methods each effective.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application
		Glyphosate (360g/L)	1 part glyphosate to 1.5 parts water	Cut stump/ stem injection

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Senna pendula</i> var. <i>glabrata</i> (Winter Senna)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 45 Score: 4.2	Erect multibranched and sprawling shrub growing >4m tall, forms dense thickets and can act as a vine and climb 10m with support from neighbouring vegetation. Young stems are green and slightly hairy while mature plants are deep brown in colour, have thick strong glabrous base. Leaves are compound, fragile and egg shaped with rounded tips, dark green with yellowy vein and edge, are alternate along the stem and consist of 3-6 pairs of opposite leaflets. Flowers are bright yellow and pea like and have five petals, grow in clusters at the tips of branches. Fruits are green cylindrical long pods that hang vertically, then flatten and become light brown when mature. Seeds are brown, flat, round and small. Hand-pull smaller plants ensuring whole plant is taken out of soil. Cut scrape and paint method is best for very mature plants (must scrape and apply herbicide liberally because will reshoot easily from cut base). Spot spraying best for smaller foliage heavy plants; though can be hydrophobic, ensure higher concentration of penetrant used and that herbicide saturates foliage until run off.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	1 Gly:1.5 water	Stem Inject
		Glyphosate + Metsulfuron Methyl	1g MM added to 1Gly:1.5 water	Cut scrape and paint
		Metsulfuron Methyl	1-2 g per 10 L water + S	Spot spray

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL									
<i>Senna septemtrionalis</i> (Brush Cassia) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 60 Score: 4	Perennial erect woody, glossy green leaved shrub that forms dense thickets, grows three to five pairs of opposite leaflets, elongated with <i>pointed tips and wider at base</i>. Stems are olive or brown coloured; base can become thick and trunk like. Flowers are bright yellow pea like with five petals and the top petal has a notched tip. Fruit are cylindrical pods, green when young and straw coloured when mature, usually upright on the stalk. Seeds are flattened and minutely pitted at surface. Similarly to <i>Senna pendula</i> var. <i>glabrata</i>; however, leaf shapes are distinct from each other. Unfortunately has the same common name as the threatened plant <i>Cassia marksiana</i>. Small seedlings can be hand pulled or dug out ensuring all the plant is removed. Spray actively growing plants. Apply herbicide to all of the foliage to the point of visible wetness. Basal barking, cut scrape and paint of stem injection favourable for large thicker bases that cannot be pulled. <table border="1"> <thead> <tr> <th>Herbicide</th><th>Rate</th><th>Comments</th></tr> </thead> <tbody> <tr> <td>Glyphosate (360g/L)</td><td>1 Gly:1.5 water</td><td>Cut scrape and paint, stem inject</td></tr> <tr> <td>Metsulfuron Methyl</td><td>1-2 g per 10 L water plus surfactant</td><td>Spot spray</td></tr> </tbody> </table>	Herbicide	Rate	Comments	Glyphosate (360g/L)	1 Gly:1.5 water	Cut scrape and paint, stem inject	Metsulfuron Methyl	1-2 g per 10 L water plus surfactant	Spot spray
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Metsulfuron Methyl	1-2 g per 10 L water plus surfactant	Spot spray									

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL															
<i>Solanum chrysotrichum</i> (Giant Devil's Fig) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 138 Score: 3.6	Erect shrub or small tree to 4m that forms dense thickets and consumes an area with its own growth. Seedlings have highly pubescent bronze stems with green and bronze prickles, then mature into bronze highly pubescent stalks, once fully matured they have glabrous brown/grey woody trunk with prominent woody thorns. Thorns are present on stem/trunk and on the leaf and appear prominently on mid vein. The strong leathery leaves are dark green with veiny lobes that have 7-13 pointed lobes per leaf with distinct shape, hairy underside and alternate along stem. Star shaped flowers grow in clusters of up to 50. Fruit are round berries that begin green and become orange or yellow in colour. Plants can be spot sprayed. Cut stump, cut scrape and paint and stem injection with quick (within 15 seconds of cutting) application of herbicide effective. <table border="1"> <thead> <tr> <th>Herbicide</th><th>Rate</th><th>Comments</th></tr> </thead> <tbody> <tr> <td>Glyphosate + Metsulfuron Methyl</td><td>200ml gly. + 1 g of Metsulfuron-methyl per 10 L of water + S + D</td><td>Spray actively growing plants, ensure all the foliage is covered</td></tr> <tr> <td>Glyphosate (360g/L)</td><td>1 Gly:1.5 water</td><td>Stem inject; cut scrape paint</td></tr> <tr> <td>Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)</td><td>Undiluted</td><td>Cut stump application</td></tr> <tr> <td>Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)</td><td>35 to 50 mL per 10 L of water + S + D</td><td>Spray actively growing plants, ensure all the foliage is covered. Do not use within 5 m of a waterway.</td></tr> </tbody> </table>	Herbicide	Rate	Comments	Glyphosate + Metsulfuron Methyl	200ml gly. + 1 g of Metsulfuron-methyl per 10 L of water + S + D	Spray actively growing plants, ensure all the foliage is covered	Glyphosate (360g/L)	1 Gly:1.5 water	Stem inject; cut scrape paint	Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application	Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	35 to 50 mL per 10 L of water + S + D	Spray actively growing plants, ensure all the foliage is covered. Do not use within 5 m of a waterway.
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BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL															
<i>Solanum mauritianum</i> (Tobacco Bush)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 61 Score: 4	Erect shrub or small tree to 4m, stems are grey green and covered in small white hairs, soft felt appearance. Leaves are alternately arranged on short thick stalks, yellowish green and have a greyish underside, densely pubescent either side and tapered at both ends in elongated oval shape. Often with stipules. Flowers are star shaped violet purple with bright yellow centres with five petals and in clusters. Fruit is round green when young and dull yellow when ripe. Pull or spot spray seedlings; large plants require cut stump, cut scrape and paint or stem injection methods. <table> <tr> <th>Herbicide</th><th>Rate</th><th>Comments</th></tr> <tr> <td>Glyphosate + Metsulfuron Methyl</td><td>200ml Gly. + 1 g of Metsulfuron-methyl per 10 L of water + S + D</td><td>Spray actively growing plants, ensure all the foliage is covered</td></tr> <tr> <td>Glyphosate (360g/L)</td><td>1 Gly:1.5 water</td><td>Stem inject; cut scrape paint</td></tr> <tr> <td>Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)</td><td>Undiluted</td><td>Cut stump application</td></tr> <tr> <td>Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)</td><td>35 to 50 mL per 10 L of water + S + D</td><td>Spray actively growing plants, ensure all the foliage is covered. Do not use within 5 m of a waterway.</td></tr> </table>	Herbicide	Rate	Comments	Glyphosate + Metsulfuron Methyl	200ml Gly. + 1 g of Metsulfuron-methyl per 10 L of water + S + D	Spray actively growing plants, ensure all the foliage is covered	Glyphosate (360g/L)	1 Gly:1.5 water	Stem inject; cut scrape paint	Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application	Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	35 to 50 mL per 10 L of water + S + D	Spray actively growing plants, ensure all the foliage is covered. Do not use within 5 m of a waterway.
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BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL															
<i>Solanum torvum</i> (Devil's Fig)   	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 93 Score: 3.9	Erect flimsy-looking shrub or small tree >3m tall. Younger stems sparsely covered in thorns and densely covered in star shaped hairs. Leaves are dull green above, greyish green below, alternate, and have an oval shape with up to seven blunt lobes per leaf, pubescent on each side with pale midveins that sometimes have prickles. Flowers are white star shaped; fruit are round berries, ripen to yellow and become black when dry. Is similar to <i>S. chrysotrichum</i>, however has a less substantial appearance, lesser in height, has lighter leaves that are frail and has less thorns. Using a combination of control methods is usually more successful. Pull or spot spray seedlings, while more mature plants require cut stump or cut, scrape and paint method. <table> <tr> <th>Herbicide</th><th>Rate</th><th>Comments</th></tr> <tr> <td>Glyphosate + Metsulfuron Methyl</td><td>200ml gly. + 1 g of Metsulfuron-methyl per 10 L of water + S + D</td><td>Spray actively growing plants, ensure all the foliage is covered</td></tr> <tr> <td>Glyphosate (360g/L)</td><td>1 Gly:1.5 water</td><td>Stem inject; cut scrape paint</td></tr> <tr> <td>Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)</td><td>Undiluted</td><td>Cut stump application</td></tr> <tr> <td>Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)</td><td>35 to 50 mL per 10 L of water + S + D</td><td>Spray actively growing plants, ensure all the foliage is covered. Do not use within 5 m of a waterway.</td></tr> </table>	Herbicide	Rate	Comments	Glyphosate + Metsulfuron Methyl	200ml gly. + 1 g of Metsulfuron-methyl per 10 L of water + S + D	Spray actively growing plants, ensure all the foliage is covered	Glyphosate (360g/L)	1 Gly:1.5 water	Stem inject; cut scrape paint	Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application	Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	35 to 50 mL per 10 L of water + S + D	Spray actively growing plants, ensure all the foliage is covered. Do not use within 5 m of a waterway.
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Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	35 to 50 mL per 10 L of water + S + D	Spray actively growing plants, ensure all the foliage is covered. Do not use within 5 m of a waterway.															

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Strelitzia nicolai</i> (Giant Bird-of-Paradise) 	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a 	Emerging weed as more and more local plants maturing. Ensure treatment before flowering. Clumping woody erect plant growing up to 10m with a palm like appearance. Large light/dark green leathery strong rounded triangle shape fronds that curl inward and resemble banana plants. Growth is in a fan shape outwards from the base. Roots resemble thick succulent tuberous, carrot-like roots. Hand pulling is effective for seedlings. Spot spray, or when larger, cut stump method with undiluted glyphosate or Picloram 44.7 g/L + Aminopyralid 4.47 g/L (Vigilant II ®) is also effective.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application
		Glyphosate (360g/L)	200ml Gly: 10L water + S + D	Spot spray method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Triumfetta rhomboidea</i> (Chinese Burr)  	Biodiversity Act 2014: Not listed SEQ Environmental Weeds Strategy: Rank: 68 Score: 4 	Erect and sprawling 1-2m in height shrub with red-brown or dull green branches, stellate hairs mixed with simple hairs along brown stem. Leaves are a rhomboid-ovate trident or palmately shaped with 3 shallow lobes and simple alternate spacing along stem. Flowers are small yellow five petalled clusters opposite to leaf on stem. Similar to <i>Urena lobata</i> which has larger mauve flowers. Fruit are brown indehiscent globose burrs with hooked spines with orange or brown seeds. Herbicide foliar spray is recommended. Caution should be taken not to spread the burrs which readily hook onto to clothing.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	100ml/10L water	Spot spray
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application

TREES

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Celtis sinensis</i> (Chinese Celtis)  	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 7 Score: 4.9  	Deciduous tree growing to 15m tall with spreading moderately dense crowns, trunk is smooth with mottled grey bark when mature. Young stems are zig-zagged in appearance, have small white dots, and bend at each point the leaf is attached. Deep green leaves with paler underside, egg shaped with a pointed tip, alternate, bluntly toothed towards the top of the leaf. Flowers are green with four petals and present for a short amount of time; fruit are green and ripen into orange or red brown in colour, they are fleshy and globous and contain one seed. Foliar spray for smaller plants is effective. For larger trees, cut sump is most effective. Basal bark method for larger trees with stumps >20cm in diameter as this will prevent basal suckers forming.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application
		Starane Advanced (Fluroxypyr 333 g/L)	2.1 L per 100 L of diesel replacement	Basal bark application, for plants up to 2m high
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spray method
		Glyphosate (360g/L)	1:1.5 Gly: water	Stem Inject

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Cinnamomum camphora</i> (Camphor Laurel)	Biodiversity Act 2014: Category 3 SEQ Environmental Weeds Strategy: Rank: 8 Score: 4.8	Tree growing up to 20m high, large spreading canopy with symmetrical crown and a short stout bole/trunk up to 1.5m in diameter. Semi-deciduous, the extent depending on local conditions. Trunk is greyish brown with a rough texture. Young leaves are pinkish, alternate, broadly lanceolate to ovate. while mature leaves are a vibrant glossy green above, with a yellow-white mid-vein and leaf margin, distinctly 3-veined from the base, and with a pale glaucous and powdery underside. Youngest stems can be green or red, while the stem and branches can retain a green colour well into early maturity. Flowers are minute, white, on panicles near the branch ends, and as with much of the plant, have a distinctive odour. Fruit ripens to black in clusters on yellow stalks. Root system is dominant in the top 50cm of soil and is heavily branched with extensive lateral roots. Identification is confirmed by the pungent camphor odour from crushed leaves or exposed wood. For seedlings and smaller plants, either hand-pull or spot spray dependant on the ratio to native species. For larger specimens, stem injection with basal and lateral root treatment is effective and the preferred method. See the ERP for further detail on <i>C. camphora</i> control. As a seedling DO NOT confuse with the native <i>Neolitsea dealbata</i> which is very similar when young, the easiest differentiation being the leaf which unlike <i>C. camphora</i> does not have a strong camphor fragrance when crushed.		
				
				
		Herbicide	Rate	Comments
		Grazon Extra (Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L)	35 or 50 mL per 10 L water	Spray actively growing plants, thoroughly cover all of the foliage.
		Glyphosate (360g/L)	Undiluted	Stem injection; 4 mL product per cut/drill hole
		Triclopyr 600 g/L (Garlon® 600)	17 ml per 10 L of water	Spray seedlings up to 3 m tall.
		Fluroxypyr	210ml:10L water	Basal bark
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spray method
		Glyphosate (360g/L)	1:1.5 Gly: water	Cut, scrape and paint

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Corymbia torelliana</i> (Cadaghi)   	Biodiversity Act 2014: Not listed. SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a	This alien native species from north Queensland is a large tree to >30m high, with spreading branches often at right angles. Juvenile <i>seedlings and young leaves have a distinctive red pubescence</i>. Stem has rough, persistent red-brown bark at the base with smooth bark above which retains a grey-green colour into maturity, eventually becoming grey. Leaves on young plants are opposite or alternate, with a broad ovate shape, pointed tips and a cordate base. All leaves have a asymmetrical base. Flowers are in white clusters, borne in small groups at the branch tips. Sooty mould is a common leaf exudate caused by insect activity. Small seedlings can be hand pulled or sot sprayed, larger plants cut and paste and for mature trees cut, scrape and paint method or stem inject.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray method
		Glyphosate (360g/L)	1:1.5 Gly: water	Cut, scrape and paint method

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Heptapleurum actinophyllum</i> (Umbrella Tree)   	Biodiversity Act 2014: Not listed. SEQ Environmental Weeds Strategy: Rank: n/a Score: n/a	This alien native species is from the tropical rainforests of Australia, New Guinea, and Java. An evergreen tree growing to 15m tall, usually multitrunked and grows an epiphyte in more tropical climates. Thick stems have conspicuous leaf scars and are dark green in colour. When mature trunk bark is a smooth grey and foliage is confined to the upper part of the tree. Palmately compound leaves with 7-16 leaves are alternate along the stem; the leaflets are shiny green leathery, oblong shaped with a pointed tip, usually smooth edges but may be toothed/lobed/hairy. Flowers occur above the uppermost foliage and are an unbranched inflorescence bearing flowers on short floral stalks, which appearing as long erect clusters. Small seedlings can be had pulled or s[pot sprayed, while mature trees need cut stump or stem injection (cut stump requires all stems and roots to be cut).		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spay, method
		Glyphosate (360g/L)	1 Gly:1.5 water	Cut stump/paint/stem inject
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump/stem injection application

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Jacaranda mimosifolia</i> (Jacaranda)  	Biodiversity Act 2014: Not listed. SEQ Environmental Weeds Strategy: Rank: 156 Score: 3.4  	Deciduous tree growing to 10m tall with spreading crown shape. Bark is smooth when the tree is young and eventually becomes brown and finely scaly with a rough appearance. Twigs are slender and zigzag, slightly red to brown in colour. Leaves are bright green, feathery and fern like in a narrow and elliptic shape and grow alternate along the stem. Leaves turn yellow in autumn before dropping. Flowers are a vibrant blue/violet colour and in clusters, each individual flower has bell shape, appearing after the deciduous period. Fruit are flat rounded woody capsules with a wavy edge and near black in colour when mature. Fruit split in the centre from which light-winged seeds emerge. Young seedlings and small plants can be hand pulled. Larger plants can be cut and paste while larger trees drilled and injected. be applied to the stumps.		
		Herbicide	Rate	Comments
		Glyphosate (360g/L)	1 Gly:1.5 water	Cut stump/paint/stem inject
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump/stem injection application

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Koelreuteria paniculata</i> (Golden Rain Tree)   	Biodiversity Act 2014: Not listed. SEQ Environmental Weeds Strategy: Rank: 170 Score: 3.6	Medium sized tree growing to 12m tall, sprawling crown shaped with angled branches. Trunk is rough grey bark with shallow vertical furrows when mature. Young stems are green with pale brown spots. Leaves are compound, thin dull deep green with multiple shallow toothed lobes leading down vein to a pointed tip with overall ovate shape. Leaves are opposite arrangement and have a singular leaf at end of the leaflet giving it an pentagonal shape. Flowers are a yellow colour with warm orange colour at base of petal and multiple yellow-cream colour anthers. Fruit are elongated tear drop shape, initially bright red in colour then fading to pink then light brown. Seedlings and young trees can be hand-pulled or spot sprayed; larger trees cut and paste or stem injection. DO NOT confuse with the native <i>Melia azederach</i> which has a very similar leaf.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	1:1.5 Gly to water + 1 g Metsulfuron to 1 L water	Stem injection
		Glyphosate (360g/L)	100ml Gly:10L water + S + D	Spot spray
		Glyphosate (360g/L)	1:1.5 Gly: water	Cut, scrape and paint

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Ligustrum lucidum</i> (Large-leaved Privet)   	Biodiversity Act 2014: Category 3. SEQ Environmental Weeds Strategy: Rank: 15 Score: 4.8	Perennial small tree to 8m with brown bark covered with lenticels. Glabrous oval-shaped pointed leaves in opposite pairs, upper leaf surface is dark green and glossy, under-surface is paler with distinct veins. Cream or white tubular flowers with sickly sweet fragrance. Berries are green when young, turning red through to blue to glossy or purplish black as they ripen. Regenerates vigorously from root and stem suckers Spot spray of foliage must have complete coverage, basal bark applications for larger plants and every trunk arising from soil must be treated, stem injection for large wide based trees is effective.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application:
		Glyphosate (360g/L)	200ml Gly:10L water + S + D	Spot spray
		Metsulfuron-methyl 300 g/kg + Aminopyralid 375 g/kg	2 g per 10 L of water + S + D	Foliar spray.

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Pinus elliotii</i> (Slash Pine)   	Biodiversity Act 2014: Not listed. SEQ Environmental Weeds Strategy: Rank: 44 Score: 4.3	Large erect tree growing to 30m in height and 0.8 in diameter with a long clear bole. Bark is grey/red/brown thick in colour and has a rough texture with mottled light and dark brown colours. Needles are long and dark glossy green and tufted at ends of tapering branches; bases are held with light brown sheath, and when they shed, they fall in complete units. Cones are green to brown and split open when fully mature. Seeds are born on the scales of the cones and are small and ovate with a papery wing. Seedlings can be hand-pulled; larger trees can be treated with stem injection or the cut stump method.		
		Herbicide	Rate	Comments
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application:
		Glyphosate + Metsulfuron Methyl	1:1.5 Gly to water + 1 g Metsulfuron to 1 L water	Stem injection

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Schinus terebinthifolius</i> (Broad-leaved Pepper Tree)    	Biodiversity Act 2014: Category 3. SEQ Environmental Weeds Strategy: Rank: 9 Score: 4.8	Fast growing, multi-stemmed shrub/small tree to >8m. Compound shiny dark green leaves are made up of 3-9 leaflets growing opposite on the stem. Leaflet shape is ovate or elongated on a slightly winged stem and has a terminal leaflet. Leaflets are paler underside, have toothed edges when young and on suckers, but when mature the leaflets have entire margins. Leaves have a peppery smell when crushed. Young branches are covered with small white lenticels, older bark is dark brown and rough with deep ridges. Flowers are borne at tips of branches and can occur throughout the year. Fruit are small fleshy berries with a glossy appearance, initially green then becoming red then black once mature. Hand pulling or spot spraying is effective for seedlings; larger sprawling thickets require cut stump or cut scrape and paint. Stem injection is recommended if plants are aiding in soil erosion.		
		Herbicide	Rate	Comments
		Starane Advanced (Fluroxypyr 333 g/L)	30mL/10L water	High volume spraying winter application only for mature leaves during fruiting stages
		Vigilant II (4.47 g/L aminopyralid, 44.7 g/L picloram)	Undiluted	Cut stump application:
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spray
		Glyphosate (360g/L)	1 Gly:1.5 water	Stem injection

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Spathodea campanulata</i> (African Tulip Tree)   	Biodiversity Act 2014: Category 3. SEQ Environmental Weeds Strategy: Rank: 190 Score: 3.4	Erect tree with a spreading crown growing up to 25m tall with a buttressed trunk, light brown bark is rough. Young branches have sparse hairs and mature branches are thick with white corky lenticels. Large green compound leaves oppositely arranged along the stem. Leaflets are broadly ovate with entire margins, slightly pubescent with sparse soft brown hairs. At the leaflet base there are 2-3 raised stipules. Flowers are large and showy, orange to red, arranged in dense clusters at the tips of the branches. Sepals are fused into a horn shape that splits along one side as the flowers open and are shaped like a tulip. Fruit are large elongated flattened capsules, are initially green and turn brown as they mature, releasing around 500 papery seeds with a membranous wing. Hand pulling and spot spray is appropriate for seedlings and young plants. Cut stump and stem injection for larger trees.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot spray method
		Glyphosate (360g/L)	1 Gly:1.5 water	Cut scrape and paint, cut stump

BOTANICAL NAME (Common name)	CLASSIFICATION	DESCRIPTION & METHOD OF CONTROL		
<i>Syagrus romanzoffiana</i> (Cocos Palm)  	Biodiversity Act 2014: Not listed. SEQ Environmental Weeds Strategy: Rank: 92 Score: 3.9  	A large palm with a single segmented grey smooth trunk (to 30cm dbh) growing up to 20m tall. Very large leaves consist of a thick main stalk with a large stem clasping base and numerous elongated leaflets. Each of the green strap-like leaflets are glabrous, have entire margins and pointed tips. They are borne in different planes giving them a 3D feathery plume-like appearance. The large branched flower clusters are up to 2m long with numerous small yellow flowers. Fruit is crowded into large hanging clusters, are ovoid and initially green then turn yellow then orange once mature. Hand pulling seedling is only effective on smaller seedling (<15cm) and only if the whole plant is removed, including the seed if still attached. Spot spray seedlings ensuring penetrant is used and spray until run off to ensure herbicide can affect leathery foliage. Stem injection is efficient though and stump method is also effective. DO NOT confuse seedlings with the native <i>Livistona australis</i>, which has a distinctly toothed petiole at the seedling stage, and a fan-palm leaf from juvenile.		
		Herbicide	Rate	Comments
		Glyphosate + Metsulfuron Methyl	200ml Gly + 1.5g MM in 10L water + S + D	Spot Spray method
		Glyphosate + Metsulfuron Methyl	1g MM added to 1 Gly:1.5 water	Stem Inject

Definitions:

Biodiversity Act 2014:

Restricted plant under the Biosecurity Act (Qld) 2014 where Category 3 states: "*the invasive plant must not be distributed either by sale or gift, or released into the environment.*"

<https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/weeds-diseases/controlling-weeds/laws> (accessed Aug24)

SEQ Environmental Weeds Strategy (2002) where:

Rank = rank of invasiveness using estimated residency years (since naturalisation/cultivation).

Score = based on expert panel assessed data of invasiveness, 5 = highest risk, below 3 = invasiveness doubtful (Batianoff and Butler 2001)

https://www.daf.qld.gov.au/_data/assets/pdf_file/0008/64637/IPA-Assessment-Invasive-Plants.pdf (accessed Aug24)

+ S = plus surfactant

+ D = plus dye

References

Herbicide and Rate – specific information referenced from _

- *South East Queensland Ecological Restoration Framework*
- *Mackay Approved Methods of Weed Control pdf*
- NSW WeedWise website
- White passionflower (daf.qld.gov.au) – Queensland Government, Invasive plant
- Colocasia esculenta (taro) | CABI Compendium (cabidigitallibrary.org)
- woodyweedspecialists.com.au/weed-identification/how-to-kill-camphor-laurel/

Description and Method of Control' – specific information referenced from

- *South East Queensland Ecological Restoration Framework*
- *Mackay Approved Methods of Weed Control pdf*

Other references and photos:

- Control laws for weeds (invasive plants) | Business Queensland
- <https://weeds.brisbane.qld.gov.au/>
- Weeds of Logan – Logan City Council
- Biosecurity Act 2014 - Queensland Legislation - Queensland Government
- NSW WeedWise
- Glossary of leaf morphology - Wikipedia
- Biosecurity Act 2014 - Queensland Legislation - Queensland Government
- Factsheet - *Solanum seaforthianum* (sydneyweeds.org.au)
- CABI Compendium - Home | CABI Digital Library
- Subspecies *Passiflora suberosa litoralis* · iNaturalist
- *Megathyrsus maximus* var. *pubiglumis* (lucidcentral.org)
- *Megathyrsus maximus* var. *pubiglumis* : Green Panic | Atlas of Living Australia (ala.org.au)
- *Paspalum mandiocanum* (lucidcentral.org)
- Broad-leaved *Paspalum* Risk Assessment (daf.qld.gov.au)
- Factsheet - *Ageratum houstonianum* (Blue Billygoat Weed) (lucidcentral.org)
- Giant Bird of Paradise (*Strelitzia nicolai*) (gardenia.net)
- Petai Balong Kecil - *Tephrosia noctiflora* (uforest.org)
- Umbrella tree (546) (lucidcentral.org)
- Australian Umbrella Tree (*Heptapleurum actinophyllum*) · iNaturalist

Attachment 7: Zone Threats

Attachment 7 includes:

1: Threats and Management Across All Zones

2: Individual Zone Tables identifying Threats and Management Requirements

Threats and Management Across All Zones

😊 Low Risk 😐 Medium Risk ☹️ High Risk of Threat Occurring 🖐️ Management Recommendation

Threats	ALL ZONES
Unmanaged fire impact to restoration areas and threatened species Trees and Pasture Grass	☹️ Across all Zones Fire activities are limited to planned burns in sclerophyll forests from time to time. Any other fire must be considered as an unwanted fire and requires an emergency response. Refer to Section 6.4 for further information on fire. 🖐️ Implement recommended fire management plan and call 000 in the event of an unplanned fire
Biosecurity Myrtle Rust & Fire Ants	☹️ Across all Zones - Risk of inevitable loss of <i>Gossia hillii</i>, <i>Rhodamnia argentea</i>, <i>Rhodamnia rubescens</i>, and <i>Rhodomyrtus psidioides</i> to Myrtle Rust. - Fire Ant spread and impacts to ecosystem functioning and recreational experience 🖐️ Refer Section 7.1.4 for management strategies
Climate Change - Extreme heat - Fire risk - Significant rainfall - Changes in rainfall - Sea level rises	☹️ Across all Zones Climate Change will threaten the persistence and change the biotic structure of flora and fauna at the Currumbin Eco-Parkland and beyond these boundaries. The site could face higher average temperatures, shifting rainfall patterns, more extreme weather events including fire and landslips, and the potential for increased saltwater intrusion into the site from sea level rises. Potential changes include increased pest animals and plants, increase in diseases, change in species ranges, decreased pollination. 🖐️ Across all Zones Build diverse ecosystems which are more resilient to change and protect habitat for animal species that play a role in biodiverse ecosystems; minimise erosion and loss of healthy topsoils; slow water flows and allow for absorption into the soil by repairing riparian zones, ensure genetic diversity in planting stock. Importantly the restoration of the Currumbin-Eco Parkland is building on connections across landscapes where plants and animals may need to move to in response to climate change.

Threats	ALL ZONES
Disturbance and erosion from internal tracks/trails	 Across all Zones Tracks located throughout all Zones.  Across all Zones - Construct and/or maintain internal tracks/trails to minimise disturbance and erosion. - Placement of tracks/trails to minimise disturbance to flora and fauna habitat where possible. - Tracks are a conduit for weed seeds. Compliance with biosecurity is required.
Fences	 Across all Zones Internal barbed wire fencing remains in some parts of the property, although much of it has been removed. Barbed wire poses a movement threat to many native fauna species, in including to Bats, Koala and Kangaroo. Property boundary fencing, in various conditions, is also in place around the entire property.  Across all Zones - Remaining internal barbed wire fencing to be removed in all zones - All new fencing and old fence repairs to be fauna friendly. - Minimise internal fencing to allow for safe fauna dispersal through the site. - Install fauna exclusion fencing where required to minimise fauna strike on adjacent roadways.
Management changes to resource commitments	 Across all Zones - Time frames, personnel requirements, work outputs and projected budgets for this plan have been established and are referred to in Section 7. Any significant changes to all or part of these factors will change the anticipated restoration outcomes.  Across all Zones - To maintain the restoration condition, ongoing treatment of the site at the conclusion of this plan is seen as essential in maintaining the site at a high standard of ecological functioning.
Inappropriate land management methods by contractors.	 Across all Zones - In line with this plan, specific personnel requirements and the role of the Environmental Superintendent have been established in Section 7. Compliance with these requirements is essential in maintaining appropriate work methods, activities and timeframes over the term of the plan. Such compliance will also offer assurances that the risk of inappropriate methods is greatly reduced.  Across all Zones - Compliance with LMC requirements will offer assurances that the risk of inappropriate methods is greatly reduced. Ensure all personnel working on the site complete the Currumbin Eco-Parkland Site Induction (Attachment 9)

Zone 1 Threats and Management

😊 Low Risk 😊 Medium Risk 😞 High Risk of Threat Occurring 🖐️ Management Recommendation

Threats	Zone 1
Vegetation management i.e. permits and approvals	😊 If native vegetation clearing is proposed, permits and approvals may be required. Threatened species and Critically Endangered LRSA are present in Zone 1. 🖐️ Seek planning advice if vegetation clearing is required. Consider local, state and federal government legislation.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	😞 Zone 1 is exposed to Piggabeen Rd housing and Cobaki Lakes housing in NSW. Threats include domestic pets and weeds. Internal vehicle and foot traffic can introduce weed species. 🖐️ - Prioritise weed control along Piggabeen boundary with Zone 1. - Establish community connections and education. - Determine who is responsible for buffer maintenance in NSW and engage. - Maintain internal trails and tracks weed free.
Key persistent internal weeds not managed appropriately on-site	😊 Key persistent species include Camphor Laurel, Kahili Ginger, Umbrella Tree, Singapore Daisy & Molasses Grass. 🖐️ - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	😞 Access potential from Piggabeen Road and the Boarder Track. This is one of the more remote sections of the site. 🖐️ - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks
Altered hydrology from site activities	😊 Site activities in zone 1 are limited to restoration. 🖐️ - Ensure waterways and drainage lines are improved or maintained in a functioning condition. - Protect potential habitat for the Tusked Frog.

Zone 2 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 2
Vegetation management i.e. permits and approvals	 If native vegetation clearing is proposed, permits and approvals may be required. Threatened species and Critically Endangered LRSA are present in Zone 2.  Seek planning advice if vegetation clearing is required. Consider local, state and federal government legislation.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 2 is exposed to Cobaki Lakes housing in NSW. Threats include domestic pets and weeds. Internal vehicle and foot traffic can introduce weed species.  - Determine who is responsible for buffer maintenance in NSW and engage. - Maintain internal trails and tracks weed free
Key persistent internal weeds not managed appropriately on-site	 Key persistent species include Cats Claw Creeper, Camphor Laurel, Kahili Ginger, Umbrella Tree & Large-Leaved Privet.  - Cats Claw Creeper requires priority and regular ongoing treatment. - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access potential from the Boarder Track. Minimal access opportunities from Piggabeen Road.  - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks
Altered hydrology from site activities	 Site activities in zone 2 are limited to restoration.  - Ensure waterways and drainage lines are improved or maintained in a functioning condition. - Protect potential habitat for the Tusked Frog.

Zone 3 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 3
Vegetation management i.e. permits and approvals	 If native vegetation clearing is proposed, permits and approvals may be required. Threatened species and Critically Endangered LRSA are present in Zone 3.  Seek planning advice if vegetation clearing is required. Consider local, state and federal government legislation.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 3 is exposed to Cobaki Lakes housing in NSW. Threats include domestic pets and weeds. Internal vehicle and foot traffic can introduce weed species.  - Determine who is responsible for buffer maintenance in NSW and engage. - Maintain internal trails and tracks weed free
Key persistent internal weeds not managed appropriately on-site	 Key persistent species include Camphor Laurel, Lantana & pasture grasses.  - Ensure progressive tree line weed management to prevent further incursion of pasture grasses. - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access potential from the Boarder Track.  - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks
Altered hydrology from site activities	 Site activities in zone 3 are limited to restoration.  - Ensure waterways and drainage lines are improved or maintained in a functioning condition. - Protect potential habitat for the Tusked Frog.

Zone 4 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 4
Vegetation management i.e. permits and approvals	 If native vegetation clearing is proposed, permits and approvals may be required. Threatened species are present in Zone 4.  Seek planning advice if vegetation clearing is required. Consider local, state and federal government legislation.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 4 is exposed to Coraki Lakes housing in NSW and a has less resilient forest condition. Threats include domestic pets and weeds. Internal vehicle and foot traffic can introduce weed species.  - Determine who is responsible for buffer maintenance in NSW and engage. - Maintain internal trails and tracks weed free
Key persistent internal weeds not managed appropriately on-site	 Key persistent species include Devils Fig, Lantana & Pasture Grasses.  - Ensure progressive tree line weed management to prevent further incursion of pasture grasses. - Do not treat large areas of Giant Devil's Fig until the area is able to be maintained satisfactorily immediately after treatment. - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access potential from the Boarder Track.  - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks
Altered hydrology from site activities	 Site activities include restoration and potential for the removal of two small dams.  - Retaining dams will assist with the protection of Tusked Frog, aquatic macrophytes and waterbird habitat. - Ensure waterways and drainage lines are improved or maintained in a functioning condition.

Zone 5 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 5
Vegetation management i.e. permits and approvals	 The placement of infrastructure and vegetation clearing may be required in this zone. Threatened species are present in Zone 5.  Seek planning advice prior to any clearing occurring. Consider local, state and federal government legislation
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 5 is exposed to development in NSW, Hoffschildt Street, Currumbin Creek Road and has a less resilient forest condition. Threats include domestic pets and weeds. Internal vehicle and foot traffic can introduce weed species.  - Establish community connections and education. - Determine who is responsible for buffer maintenance in NSW and engage. - Maintain internal trails and tracks weed free. -
Key persistent internal weeds not managed appropriately on-site	 Key persistent species include Slash Pine, Lantana & Pasture Grasses.  - Ensure progressive tree line weed management to prevent further incursion of pasture grasses. - Ensure Slash Pine seedlings do not establish outside the core plantation area. - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access potential from Currumbin Creek Road, Hoffschildt Street and the Boarder Track. site.  - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks
Altered hydrology from site activities	 Site activities are limited to restoration with some potential construction in Sub-Zone 5.2.  - Ensure waterways and drainage lines are improved or maintained in a functioning condition.

Zone 6 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 6
Vegetation management i.e. permits and approvals	 Vegetation clearing may occur in this zone to install infrastructure. Marine plants, a threatened ecological community and threatened species are present in Zone 6.  Seek planning advice prior to any clearing occurring. Consider local, state and federal government legislation, particularly for marine plant and Coastal Swamp Oak forest disturbance.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 6 has significant risk of receiving weed species during flood events. High visitor attendance in this zone may increase the chance of domestic pets and weeds being released. Internal vehicle and foot traffic can introduce weed species.  - Increase weed management following flood events. - Establish community connections and education on the harm of domestic pets and weed species. - Maintain internal trails and tracks weed free. - Introduce a pest reporting mechanism in the car park area.
Key persistent internal weeds not managed appropriately on-site	 Key persistent species include Camphor Laurel, Lantana, Cats Claw Creeper, Devils Fig, Kadaghi, Celtis & Turtle Vine.  - Minimise encroachment of pasture grasses into Swamp Oak Forest. - Manage small outbreaks of Cats Claw Creeper. - Ensure appropriate ongoing weed management to minimise recurrence. -
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access potential from Currumbin Creek Road and the formal site entrance.  - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks

Threats	Zone 6
Altered hydrology from site activities	 Site activities include the construction of infrastructure such as car parks, amenity blocks, picnic tables and boardwalks. This Zone also contains artificial drainage canals, historic weir and small culvert pipes.  - Minimise disturbance to acid sulfate soils to protect the creek aquatic habitats and water quality from acid impacts. - Minimise clearing of marine plants and obtain permits where necessary. - Consider blocking artificial drainage canals to stop infiltration and drainage of canal resulting in less acid impacts and improvement of the function of the local aquatic ecosystems. - Consider the removal or replacement of the weir and pipes to improve tidal flushing and fish passage. - Minimise changes to water level and overland flow which could impact the threatened Swamp Oak Forests and restoration efforts in Sub-Zones 6.1 & 6.2. - Ensure waterways and drainage lines are improved or maintained in a functioning condition.

Zone 7 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 7
Vegetation management i.e. permits and approvals	 If native vegetation clearing is proposed, permits and approvals may be required. Threatened species and Critically Endangered LRSA are present in Zone 7.  Seek planning advice if vegetation clearing is required. Consider local, state and federal government legislation.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 7 is exposed to Currumbin Creek Rd and Piggabeen Rd. Threats include domestic pets and weeds. Internal vehicle and foot traffic can also introduce weed species.  - Prioritise weed control along Currumbin Creek Rd and Piggabeen Rd boundary with Zone 7. - Establish community connections and education. - Maintain internal trails and tracks weed free.
Key persistent internal weeds not managed appropriately on-site	 Key persistent weeds include Camphor Laurel, Cadaghi, Umbrella Tree, and Giant Devil's Fig.  - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access potential from Currumbin Creek Rd and Piggabeen Road.  - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks
Altered hydrology from site activities	 Other than restoration, site activities in zone 7 include the construction of artificial wetlands (being designed and implemented by others).  - Ensure waterways and drainage lines are improved or maintained in a functioning condition. - Protect potential habitat for the Tusked Frog.

Zone 8 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 8
Vegetation management i.e. permits and approvals	 If native vegetation clearing is proposed, permits and approvals may be required. Threatened species and Critically Endangered LRSA are present in Zone 8.  Seek planning advice if vegetation clearing is required. Consider local, state and federal government legislation.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 8 is partially exposed to Piggabeen Rd. Threats include domestic pets and weeds. Internal vehicle and foot traffic can also introduce weed species.  - Prioritise weed control along Piggabeen Road boundary with Zone 8. - Establish community connections and education. - Maintain internal trails and tracks weed free.
Key persistent internal weeds not managed appropriately on-site	 Key persistent weeds include Camphor Laurel, Cat's Claw Creeper and Giant Devil's Fig.  - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access potential from Piggabeen Road.  - Install and maintain exclusion measures to reduce unauthorised access. - Maintain site security checks
Altered hydrology from site activities	 Site activities in zone 8 are limited to restoration including revegetation associated with Camphor conversion.  - Ensure waterways and drainage lines are improved or maintained in a functioning condition. - Protect potential habitat for the Tusked Frog.

Zone 9 Threats and Management

 Low Risk
  Medium Risk
  High Risk of Threat Occurring
  Management Recommendation

Threats	Zone 9
Vegetation management i.e. permits and approvals	 If native vegetation clearing is proposed, permits and approvals may be required. Threatened species are present in Zone 9.  Seek planning advice if vegetation clearing is required. Consider local, state and federal government legislation.
Weed and pest impacts from adjacent developments, i.e. dispersal into CEP	 Zone 9 is exposed to Currumbin Creek Rd and Piggabeen Rd. Threats include domestic pets and weeds. Internal vehicle and foot traffic can also introduce weed species.  - Establish community connections and education.
Key persistent internal weeds not managed appropriately on-site	 Key persistent weeds include Camphor Laurel, Cadaghi, Giant Devil's Fig, Jacaranda and Umbrella Tree .  - Ensure appropriate ongoing weed management to minimise recurrence.
Unauthorised human access resulting in rubbish dumping, wood chopping, vandalism, accidental fire, physical disturbance from activities such as mountain bikes and horses.	 Access to the road reserve is available to the public.  - Maintain site security checks
Altered hydrology from site activities	 Site activities in zone 9 are limited to restoration.  - Ensure waterways and drainage lines are improved or maintained in a functioning condition. - Protect potential habitat for the Tusked Frog.

Attachment 8: Currumbin Eco-Parkland Induction

Economic Development Queensland

Creating and investing in sustainable places for Queensland to prosper



**Queensland
Government**

Currumbin Eco-Parkland Ecological Site Induction







ACKNOWLEDGEMENT OF COUNTRY

Economic Development Queensland proudly acknowledges that we undertake our work on Country of First Nations people — the oldest living culture in the world and the original peoples of Australia.

We pay our respects to Elders past and present, and we honour their sacred and continued cultural connections with their lands and waters.

EDQ is committed to supporting Aboriginal Peoples and Torres Strait Islander Peoples in protecting culture and Country for future generations and we rely on their deep knowledge to guide us in our vision of creating sustainable places for Queensland to prosper.



ABOUT ECONOMIC DEVELOPMENT QUEENSLAND

Queensland Government's land use
planning and development agency



The background of the slide is a photograph of a forest. The top half shows tall, thin trees with green foliage against a clear blue sky. The bottom half shows a denser forest with many trees and a lot of green undergrowth. A teal-colored horizontal band runs across the middle of the slide, containing the title and a graphic element.

Part 1: Site Details



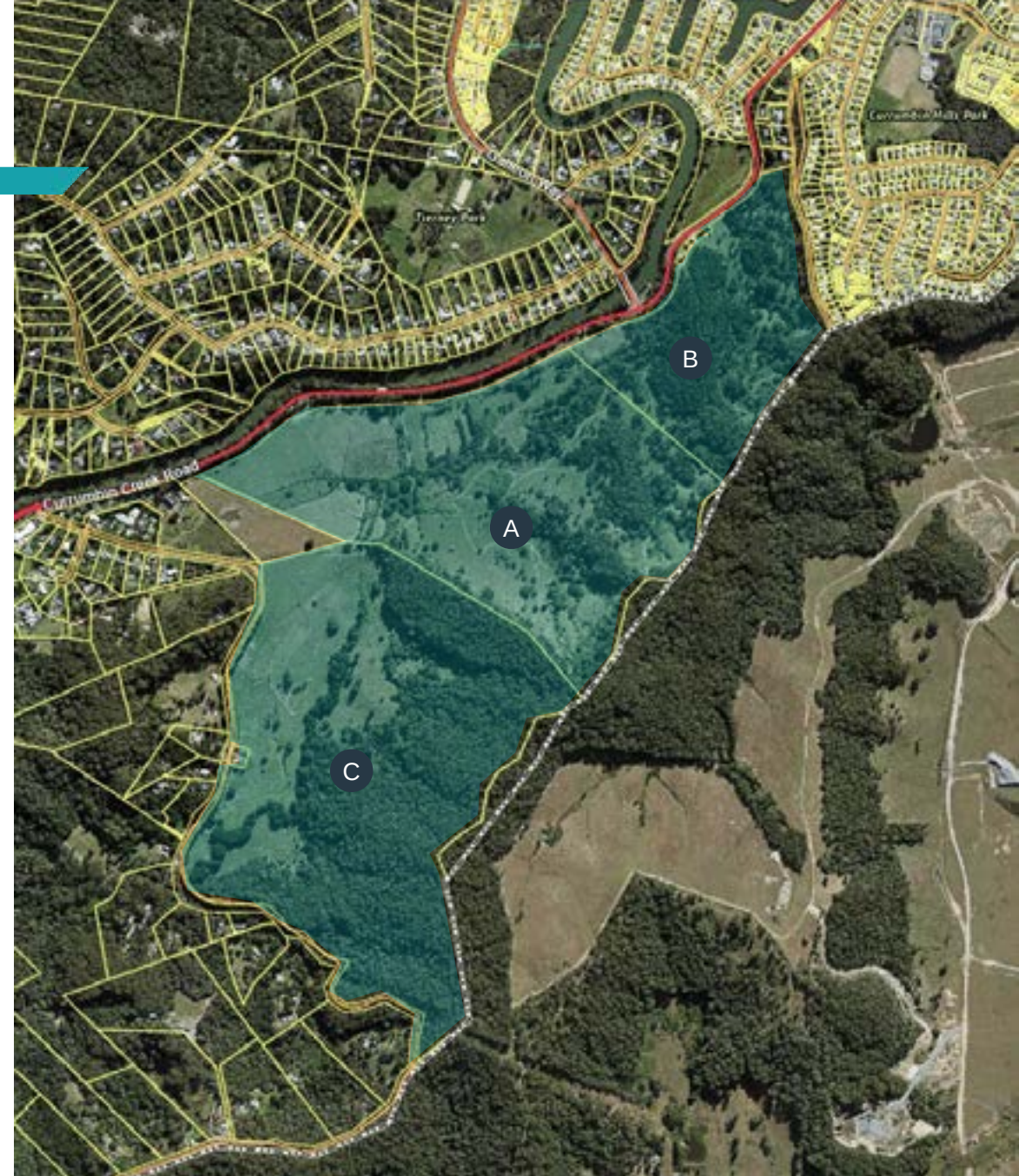


Overview

- This induction has been prepared to assist with familiarisation of the key ecological values of the Currumbin Eco-Parkland (**the Site**).
- Contractors must familiarise with these values, and the potential harm of their work activities, as part of any contract for project work.

148 Hectares of Land

- A) Lot 1 RP854934 534,299 m²
- B) Lot 247 RP854934 243,600 m²
- C) Lot 2 RP 168012 702,567 m²



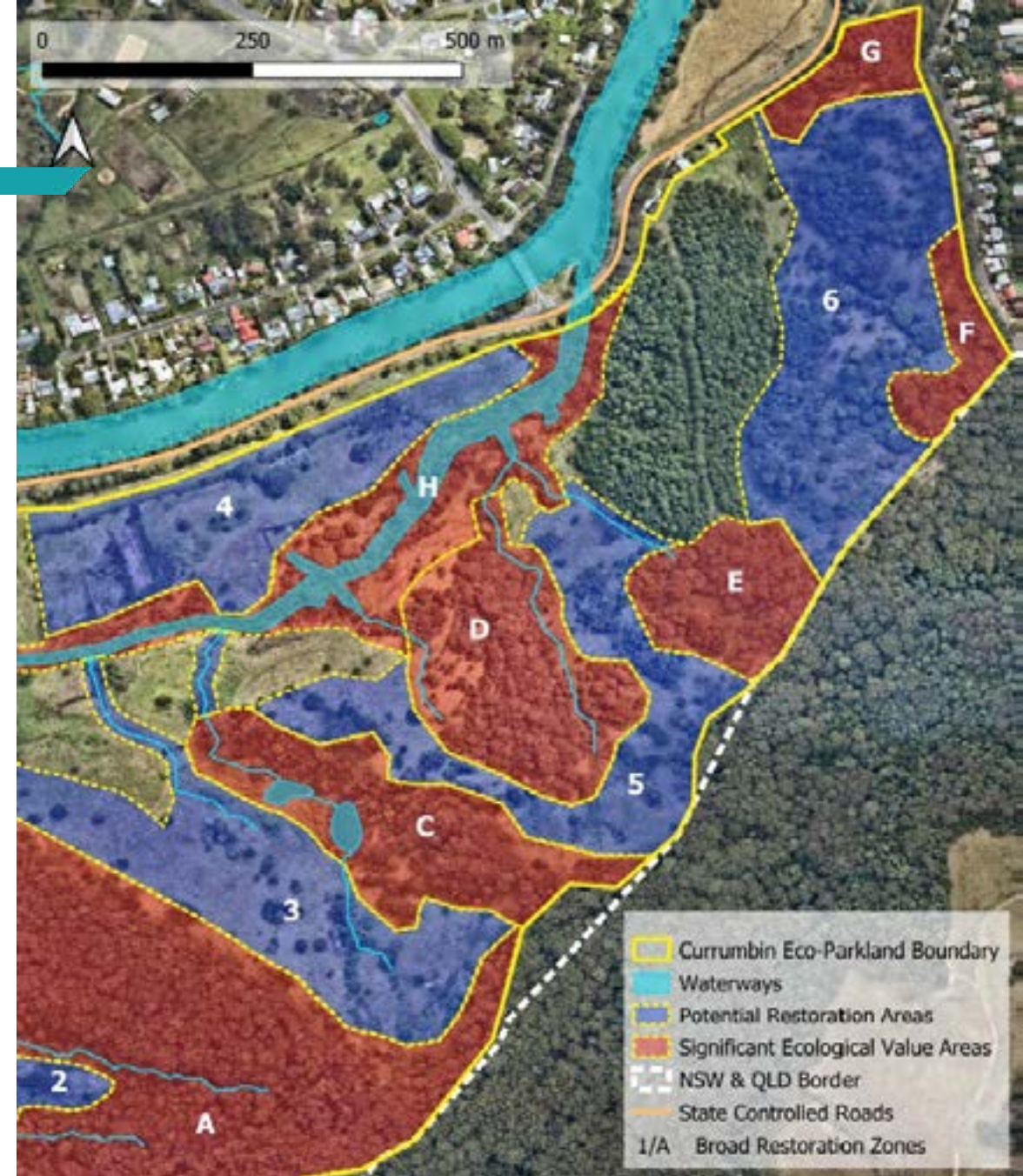
Ecological Value

- **Flora surveys:**
 - 425 native species
 - 186 exotic species
 - 16 threatened species
- **Fauna surveys:**
 - 197 vertebrate
 - 113 invertebrate
 - 15 threatened species



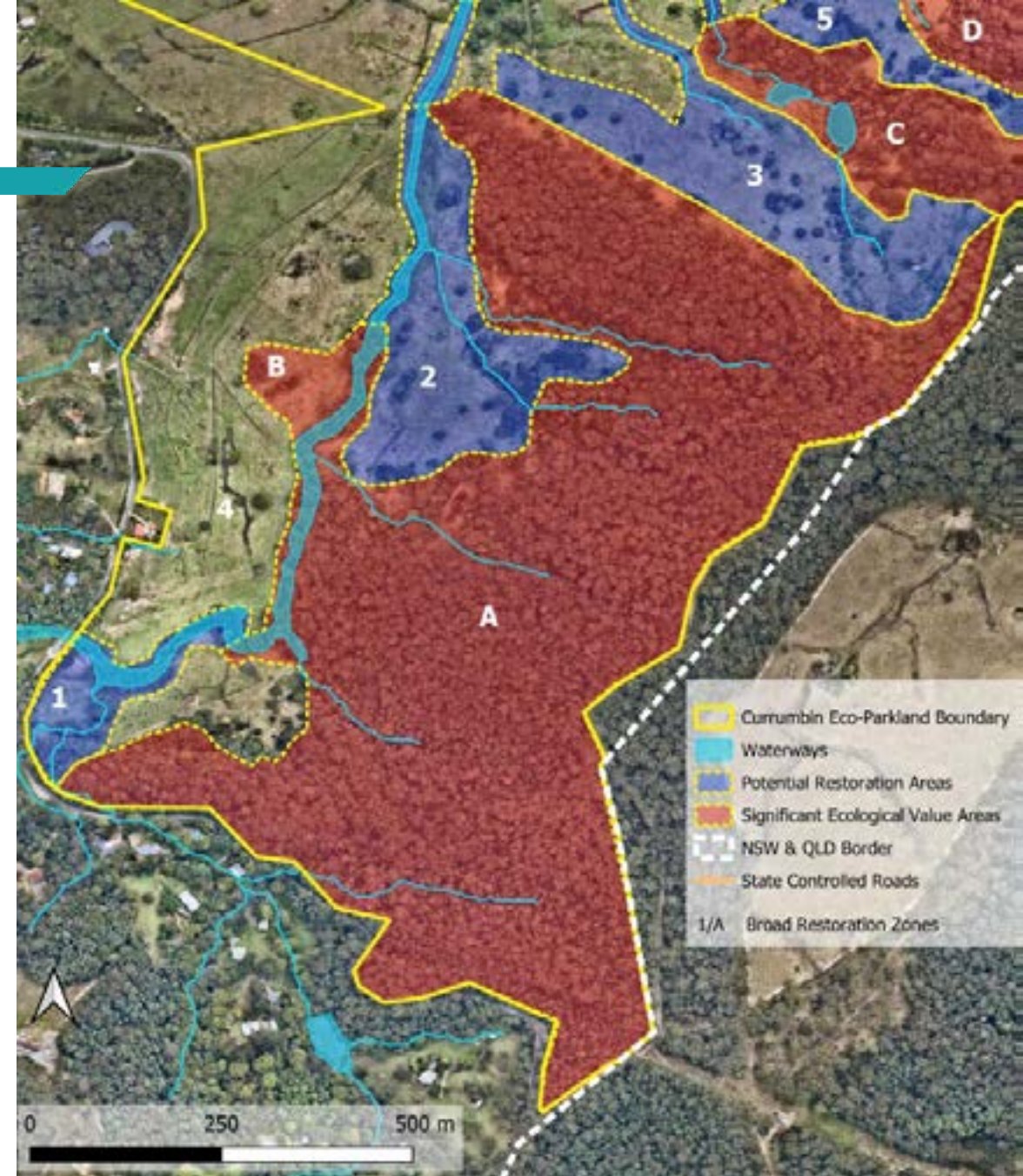
Ecological Map 7.1a

- Map 7.1a - areas of ecological importance to the north of the Site.
- **Letters A-H:** High ecological value
- **Numbers 1-6:** Restoration opportunities
- **Areas in Red:** Significant ecological value
- **Areas in Blue:** High natural restoration potential



Ecological Map 7.1b

- Map 7.1b - areas of ecological importance to the south of the Site.
- **Letters A-H:** High ecological value
- **Numbers 1-6:** Restoration opportunities
- **Areas in Red:** Significant ecological value
- **Areas in Blue:** High natural restoration potential





Contractor Responsibilities

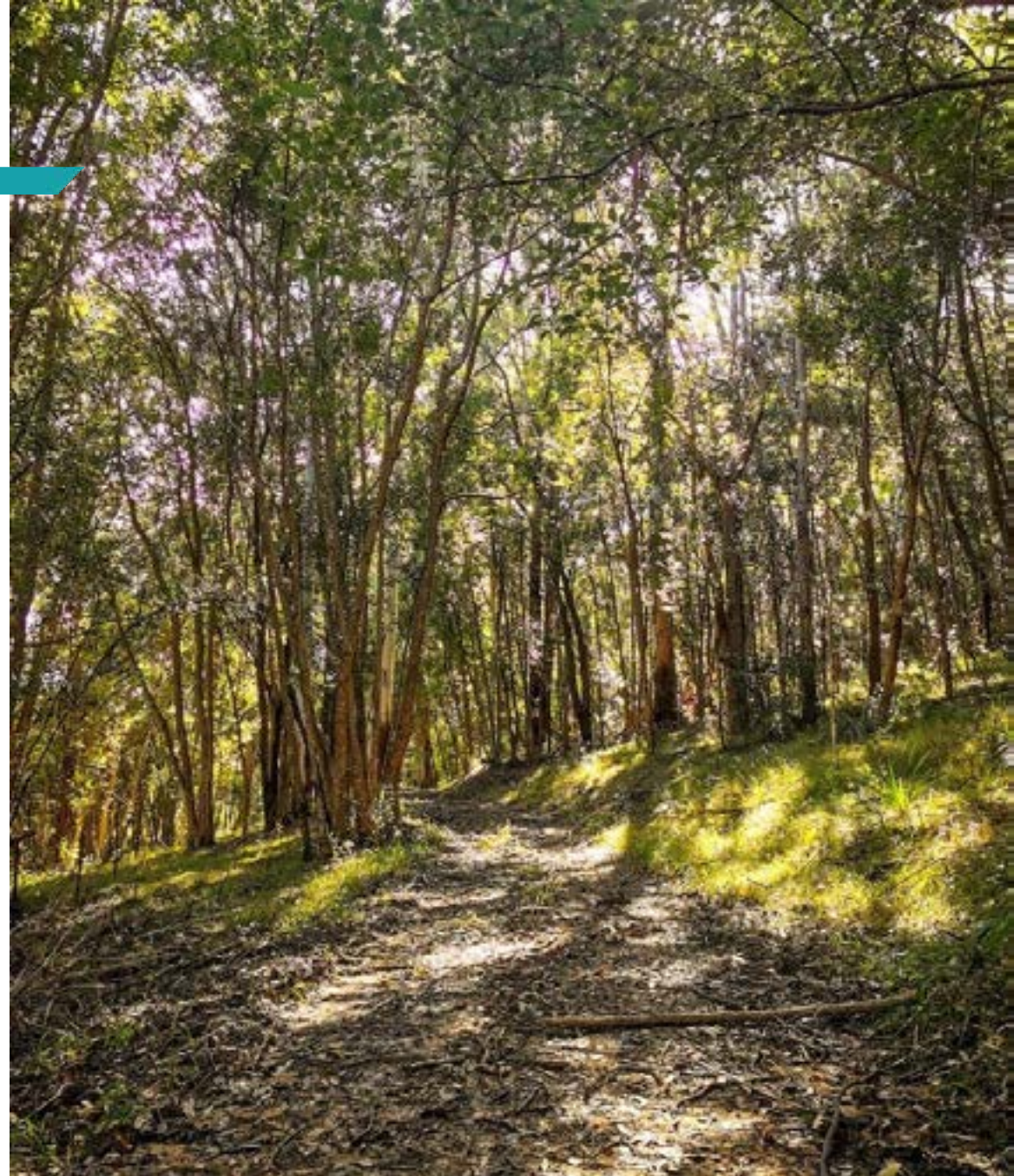
- **Duty of Care:** Ensure minimal impact when working near ecological values.
- **Legislation:** Parts of the Site are protected by legislation; unlawful damage can lead to prosecution.
- **Compliance:** Ensure compliance with management plans and induction requirements.





Environmental Impact

- The Site contains threatened federal, state and local species and ecological communities.
- Contractors must avoid all high value areas.
- If working in these environments, contractors must ensure all works are confined to a minimum footprint.
- Always ensure appropriate supervision.



Detrimental Site Activities

- Parking / inappropriate use of vehicles.
- Offloading / loading materials, machinery, equipment.
- Personal, construction, or demolition waste.
- Damage to trees or other vegetation / use of fire.
- Inappropriate or accidental use of herbicides.
- Unapproved recreational uses; mountain bikes or horses.





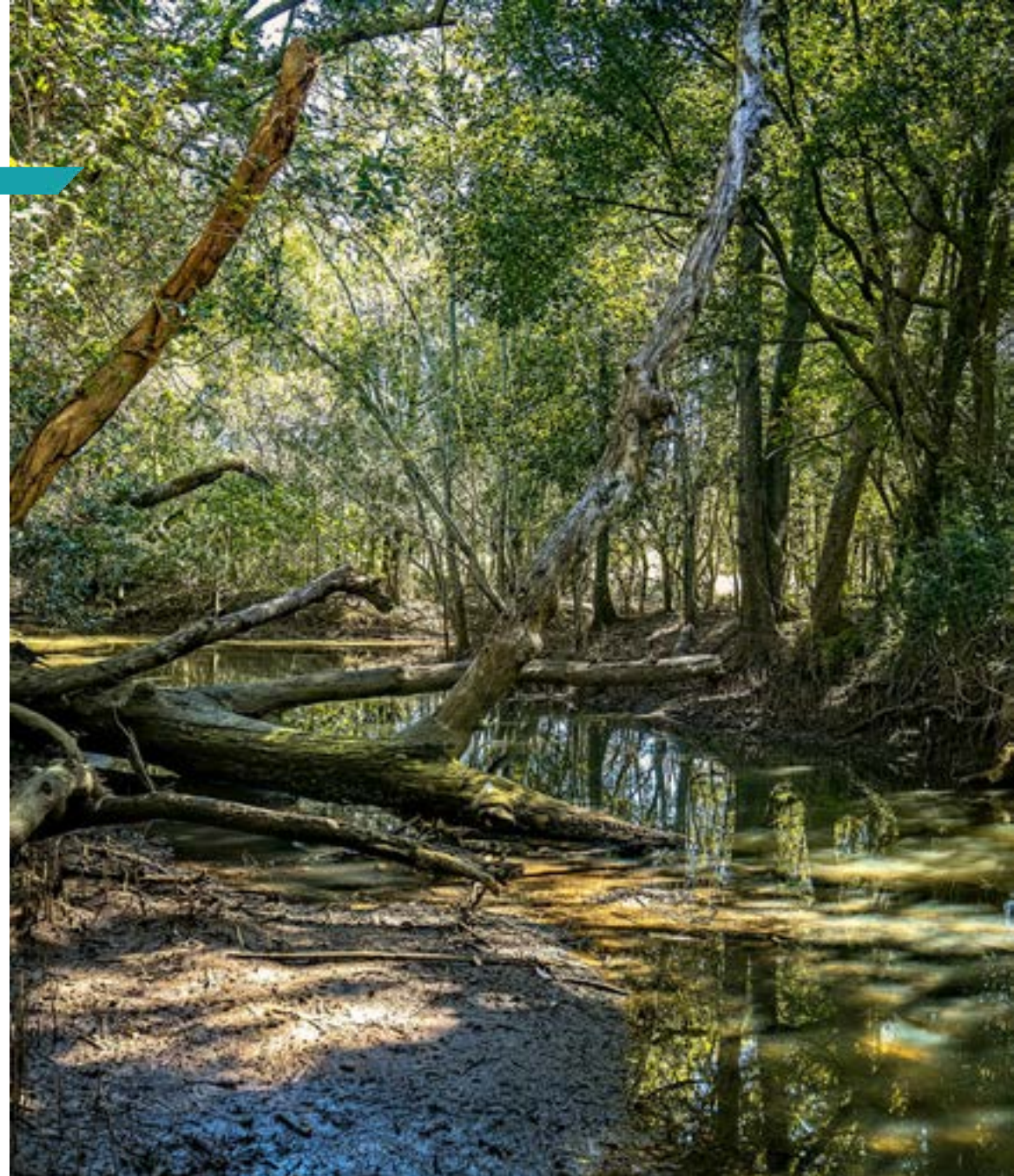
Fauna (Native Animals)

- The Site is home to threatened and significant fauna.
- If undertaking work that disturbs flora or fauna habitat, take all steps necessary to avoid and minimise impact.
- Where required, use a fauna spotter catcher to identify and remove fauna from a work zone or project area.
- **LOOK BUT DON'T TOUCH.**



Fauna Protections

- Wildlife is protected under the *Nature Conservation Act 1992*. Do not interfere with or handle fauna.
- Be aware of the potential for fauna injury or mortality from:
 - Vehicle movement and vegetation clearing
 - Trenching, excavating or project works
 - Entrapment under equipment
 - Inappropriate site activity





Emergency Contacts

- If injured wildlife are encountered, then the best organisations to contact are listed below:
 - Wildcare: 07 5527 2444
 - Currumbin Wildlife Hospital: 07 5534 0813
 - Currumbin Fair Vet Surgery: 07 5598 6565



Fauna Examples



The background of the slide is a photograph of a forest. The top half shows a dense canopy of green trees against a clear blue sky. The bottom half shows a forest floor with tall grass and several tree trunks. A teal banner with a white chevron pattern is overlaid across the middle.

Part 2: Flora





Overview

- The second part of this induction is for operators who may encounter site flora and may need to identify threatened plant species.



Site Flora

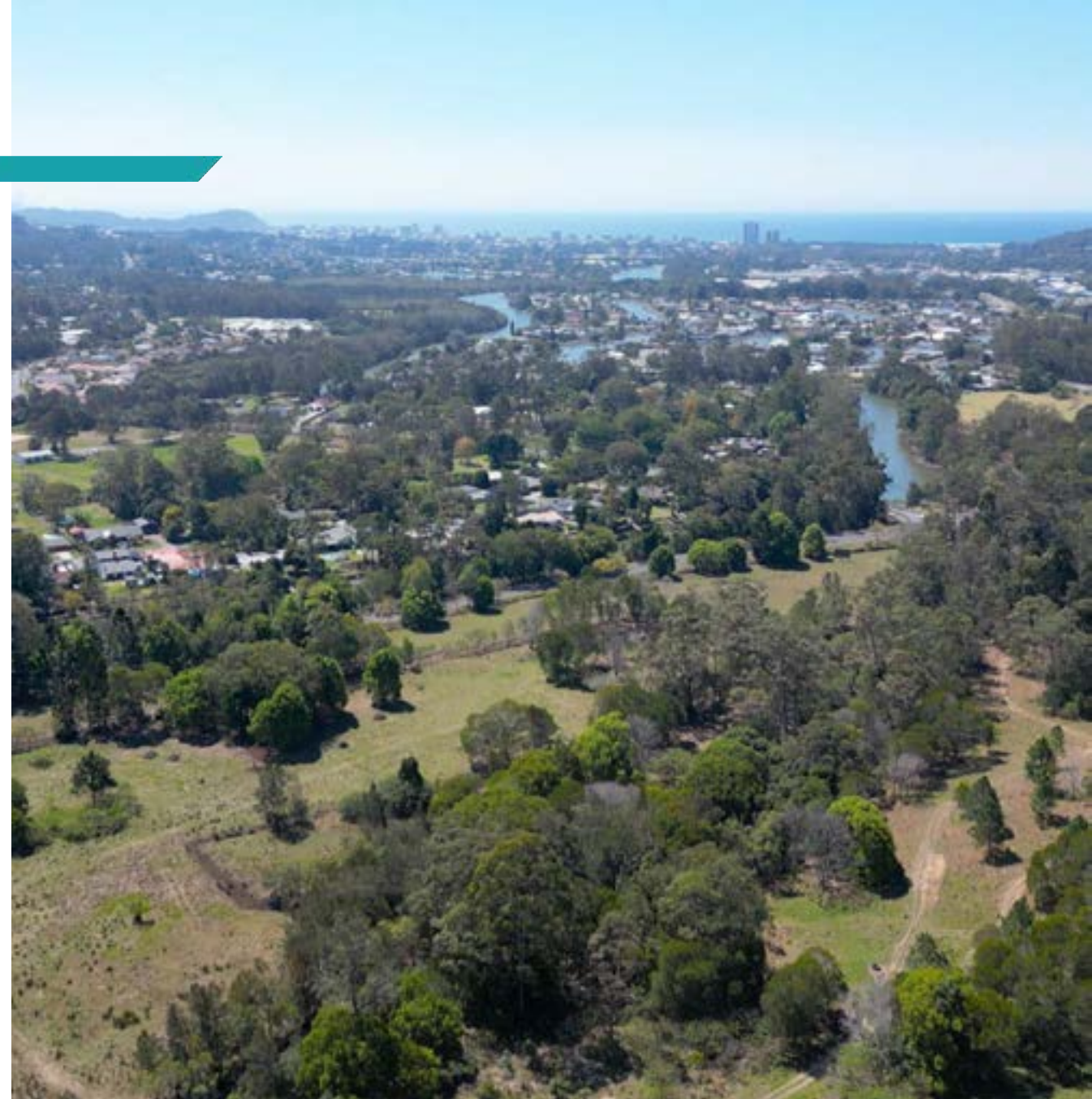
- The site contains numerous threatened or significant species.
- This induction aims to assist with field identification to lessen the possibility of accidental collateral damage to site-specific species.





Further Details

- 33 Special Least Concern species are not included in this induction.
- 17 species recognised as City of Gold Coast Priority Species have been observed.
- Refer attachment 5 of EDQ's [Ecological Study 2023](#).



Threatened Species

Botanical Name:	Common Name:	Status EPBC	NCA*	Total stems
<i>Cassia marksiana</i>	Brush Cassia	-	V	88
<i>Cupaniopsis newmanii</i>	Long-leaved Tuckeroo	-	NT	719
<i>Endiandra globosa</i>	Black Walnut	-	NT	619
<i>Endiandra hayesii</i>	Rusty Rose Walnut	V	V	5
<i>Gossia hillii</i>	Brush Cassia	-	CR	15
<i>Leichhardtia coronata</i>	Slender Milk Vine	-	V	60
<i>Leichhardtia longiloba</i>	Clear Milk Vine	V	V	120
<i>Lepiderema pulchella</i>	Fine-leaved Tuckeroo	-	V	98
<i>Macadamia integrifolia</i>	Macadamia Nut	V	V	50
<i>Macadamia tetraphylla</i>	Queensland Nut	V	V	1
<i>Pararistolochia praevenosa</i>	Richmond Birdwing Vine	-	NT	40
<i>Randia moorei</i>	Spiny Gardenia	E	E	10
<i>Rhodamnia maideniana</i>	Smooth Scrub Turpentine	CE	CR	182
<i>Rhodamnia rubescens</i>	Scrub Turpentine	CE	CR	968
<i>Rhodomyrtus psidioides</i>	Native Guava	CE	CR	605
<i>Syzygium moorei</i>	Coolamon	V	V	41

CE = Endangered, E = Endangered, V = Vulnerable
[Environmental Protection & Biodiversity Conservation Act 1999 \(EPBC\)](#)

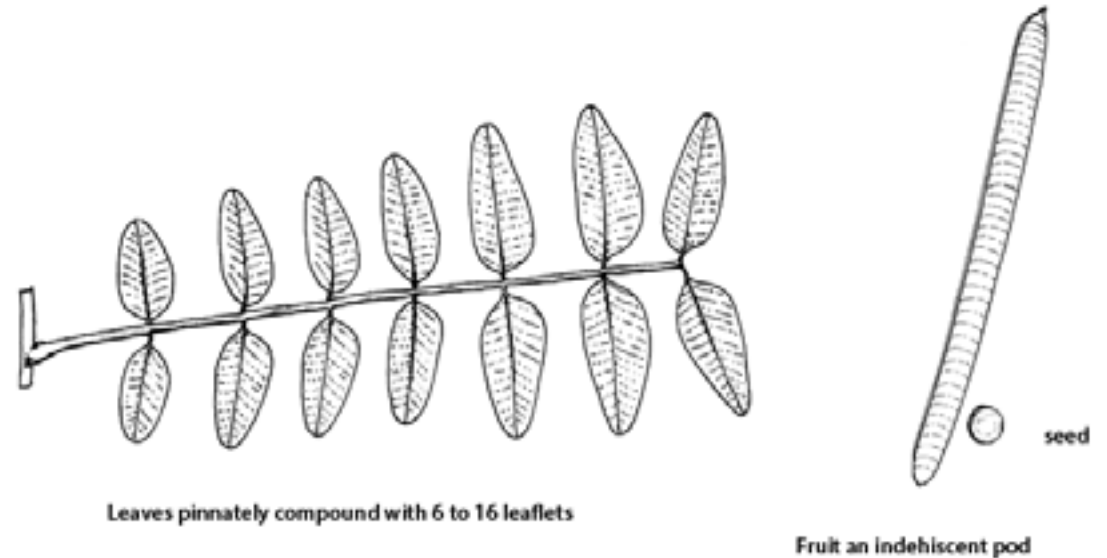
CR = Critically Endangered, E = Endangered, V = Vulnerable, NT = Near threatened
[Queensland Nature Conservation \(Plants\) Regulation 2020 \(Nature Conservation Act 1992\).](#)

*Does not include Special Least Concern Species



Cassia marksiana (Brush Cassia)

The compound pinnate leaves are shiny green. Deciduous, but when leafless is relatively easy to spot with a distinctive stem: greyish light-brown, longitudinally fissured and scaly, often with prominent lenticels.



Deciduous tree to 25m with compound, glossy leaves and yellow, perfumed flowers in racemes up to 20cm, followed by brown cylindrical seed pods to 35cm long.

Cassia marksiana (Brush Cassia)



© Hugh Nicholson, Rainforest Plants of Australia, Gwen Harden Publishing

Cassia marksiana (Brush Cassia)

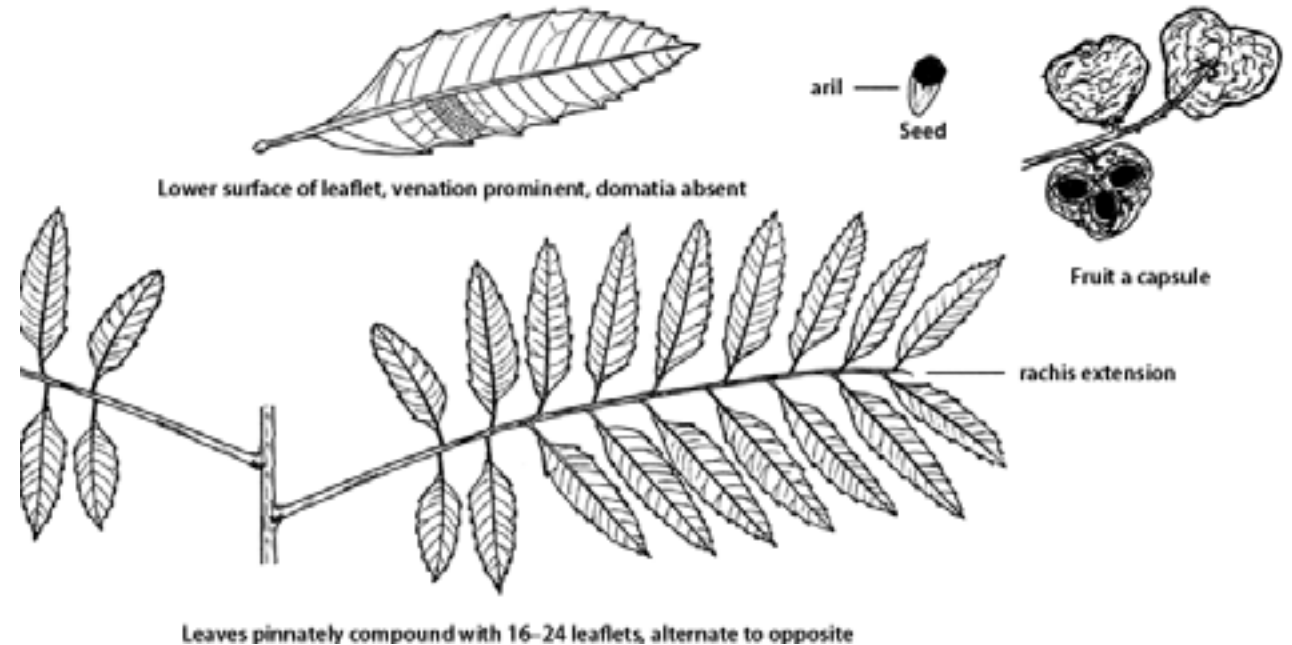
Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	not listed
	Nature Conservation (Plants) Regulation 2020	vulnerable
Distribution Extent:	Grows in scattered populations from Brunswick Heads north to outlier near Beenleigh and to the west of Canungra. Occurs in dry and lowland subtropical rainforest ecotone. Less than 50 records within its range and only a few in Currumbin Valley.	
Occurrence on-site:	Occurs in moist lower slopes and gullies in rainforest and ecotone Eucalyptus forest in good shade. Several larger/older trees were observed in clusters of small trees.	
Total stems on-site:	88	



Please note: Dots on each map indicating plant locations can represent many individual plants at that single location.

Cupaniopsis newmanii (Long-leaved Tuckeroo)

Stiff leathery pinnate leaves. New growth is fire-engine red. Often multi-stemmed with a tuft of leaves toward the top, rarely branched. Prominent leaf scars on stems. Often occurs in clusters.



Small tree to 8m with compound leathery leaves with toothed leaflets. New growth is red. Flowers are small and pink in panicles followed by large orange seed capsules with shiny black seeds.

Cupaniopsis newmanii (Long-leaved Tuckeroo)



© Hugh Nicholson © Glenn Leiper © Bill McDonald, Rainforest Plants of Australia, Gwen Harden Publishing

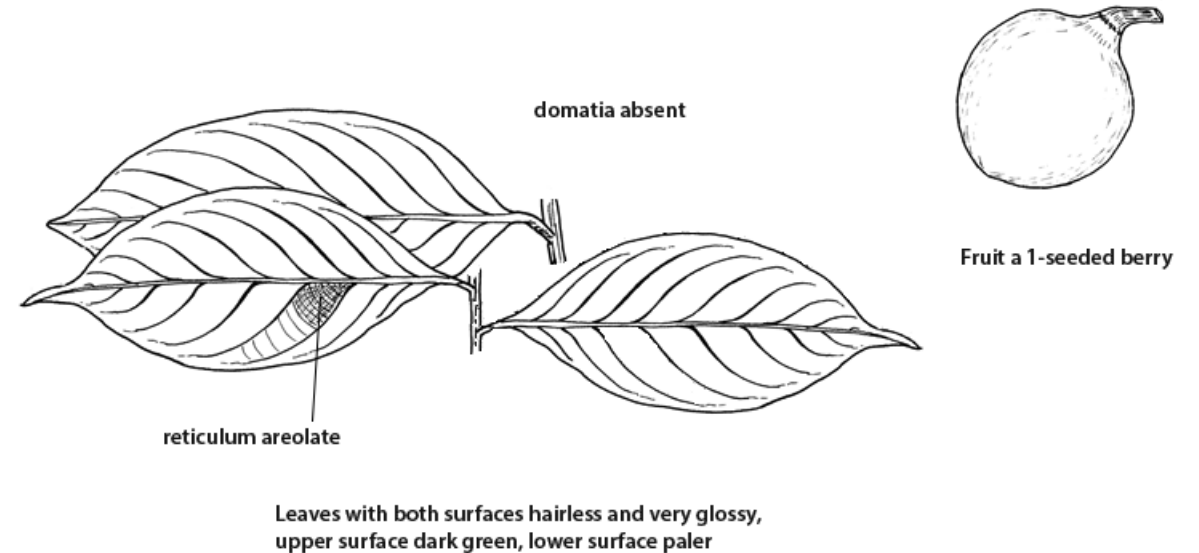
Cupaniopsis newmanii (Long-leaved Tuckeroo)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	not listed
	Nature Conservation (Plants) Regulation 2020	near threatened
Distribution Extent:	Ranges from Mullumbimby, NSW north to the Beenleigh district (also at Kin Kin), QLD and occurs in subtropical and warm temperature rainforest and on forest margins including wet sclerophyll forest. It is relatively common in some localised areas, but the Gold Coast hinterland and northern NSW are the only places where this species occurs.	
Occurrence on-site:	Occurs in clusters in south facing moist hillsides and gullies in rainforest but also on sheltered Eucalyptus hillsides with occasional solo outliers.	
Total stems on-site:	719	



Endiandra globosa (Black Walnut)

Large shiny green simple alternate leaves with a distinctive white mid-vein. Leaves sweetly aromatic when crushed. Often multi-stemmed, bark creamy-white. Large glossy black fruit to 7cm diameter.



Tree to 25m with cream coloured bark and white glossy green leaves that have a distinctive white mid-vein. Small cream flowers followed by a large black fruit to 5cm with one large seed.

Endiandra globosa (Black Walnut)



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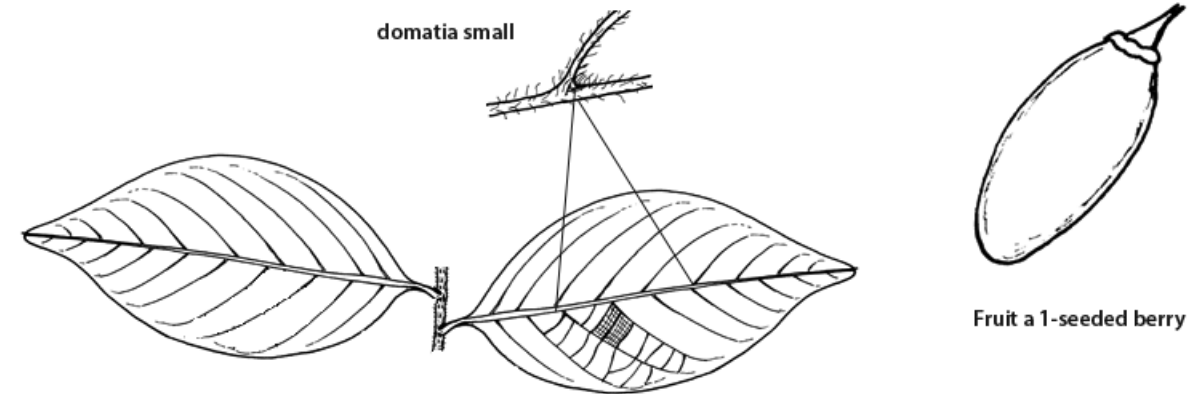
Endiandra globosa (Black Walnut)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	not listed
	Nature Conservation (Plants) Regulation 2020	near threatened
Distribution Extent:	From Mullumbimby north to Tallebudgera Creek with a disjunct population in FNQ near Innisfail. Only a few records in Currumbin Valley.	
Occurrence on-site:	Relatively abundant in copses in rainforest and gullies and on sheltered lower and mid-hillsides in moist Eucalyptus forest. Several isolated outliers.	
Total stems on-site:	619	



Endiandra hayesii (Rusty Rose Walnut)

Broadly ovate to elliptic simple alternate leaves. Shiny mid-green and hairless above but distinctly hairy below. Lateral veins prominently impressed on upper surface. Only one location recorded on-site (to date).



Leaves with surfaces green, upper surface markedly raised between impressed lateral veins, hairless, lower surface densely hairy with straight and crooked pale brown hairs

Tree to 20m, very similar to E.muelleri ssp. bracteata, leaves hairy below, petiole rusty hairy.
Small cream-green flowers in panicles followed by an ovoid drupe to 3.5cm.

Endiandra hayesii (Rusty Rose Walnut)



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Endiandra hayesii (Rusty Rose Walnut)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	vulnerable
	Nature Conservation (Plants) Regulation 2020	vulnerable
Distribution Extent:	Isolated populations from Suffolk Park near Byron Bay NSW north to Burleigh Headland and in the McPherson Range. Only two other records in the Currumbin Valley.	
Occurrence on-site:	Only one location recorded on-site.	
Total stems on-site:	5	

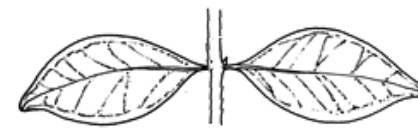


Gossia hillii (Scaly Myrtle)

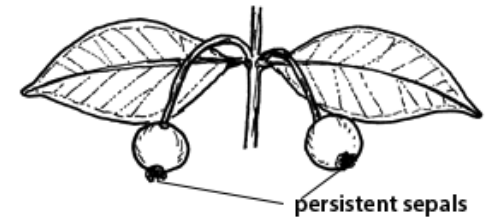
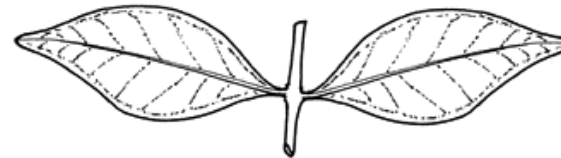
Soft to firm opposite leaves with a blunt point. Young buds and stems hairy with pink new leaves. Upper leaf surface very glossy, lower surface less so. Mid-vein distinctly raised on the upper surface. Intramarginal veins visible but not distinct.

White flowers followed by small, black, glossy, fleshy berries.

Note: Myrtle Rust has drastically reduced flowering and fruiting specimens of this species.



leaves variable in size



Fruit a berry

Leaves hairless, upper surface very glossy, lower surface less glossy.

Gossia hillii (Scaly Myrtle)



Gossia hillii (Scaly Myrtle)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	<i>not listed</i>
	Nature Conservation (Plants) Regulation 2020	<i>critically endangered</i>
Distribution Extent:	Occurs in subtropical and dry rainforests from the Nymboida River NSW north to Bulburin QLD. Then occurs again from Eungella north to the Windsor Tableland North QLD.	
Occurrence on-site:	One small population was observed in a mid-gully hillside with rainforest understorey.	
Total stems on-site:	15	



Leichhardtia coronata (Milk Vine)



Small slender twining vine, often seen as multiple leaf clusters on the ground nearby to several twining stems. Leaves opposite, lanceolate, dark green, relatively thick with a distinct white mid-vein. Milky latex present when leaf broken. Only observed in two nearby locations on-site (to date).

Small slender twining vine, often seen as multiple leaf clusters on the ground nearby to several twining stems. Leaves opposite, lanceolate, dark green, relatively thick with a distinct white mid-vein. Milky latex present when leaf broken. Only observed in two nearby locations on-site (to date).

Leichhardtia coronata (Milk Vine)



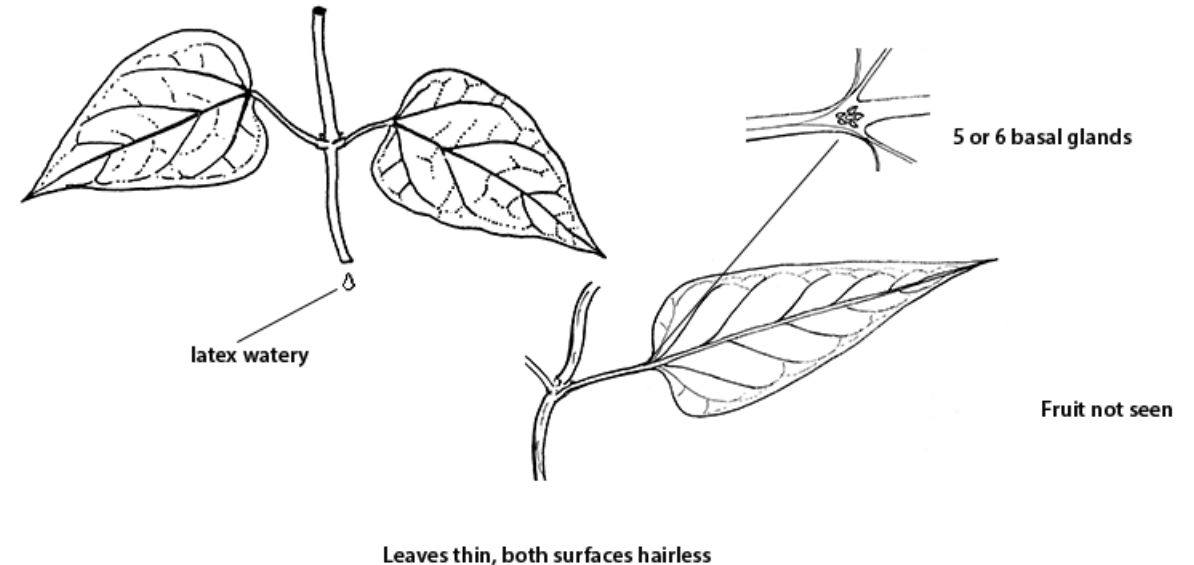
Leichhardtia coronata (Milk Vine)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	not listed
	Nature Conservation (Plants) Regulation 2020	vulnerable
Distribution Extent:	From Barrington Tops NSW to Mt Glorious north of Brisbane QLD. It occurs in subtropical and littoral rainforest and Eucalyptus forest in disjunct populations with only a few records on the Gold Coast including Springbrook, Bonogin, Mudgeeraba and Guanaba.	
Occurrence on-site:	Limited to two proximate locations on a hillside under Eucalyptus canopy, close to a rocky gully.	
Total stems on-site:	Several dozen over 2 locations.	



Leichhardtia longiloba (Slender Milk Vine)

Small slender twining vine, often seen as multiple leaf clusters on the ground nearby to several twining stems. Leaves opposite, lanceolate, dark green, relatively thick with a distinct white mid-vein. Milky latex present when leaf broken. Only observed in two nearby locations on-site (to date).



Slender vine with delicate light green leaves and clear sap. This is a cryptic species i.e. it seasonally dies back to a tuber, can go unrecorded when not in foliage.

Leichhardtia longiloba (Slender Milk Vine)



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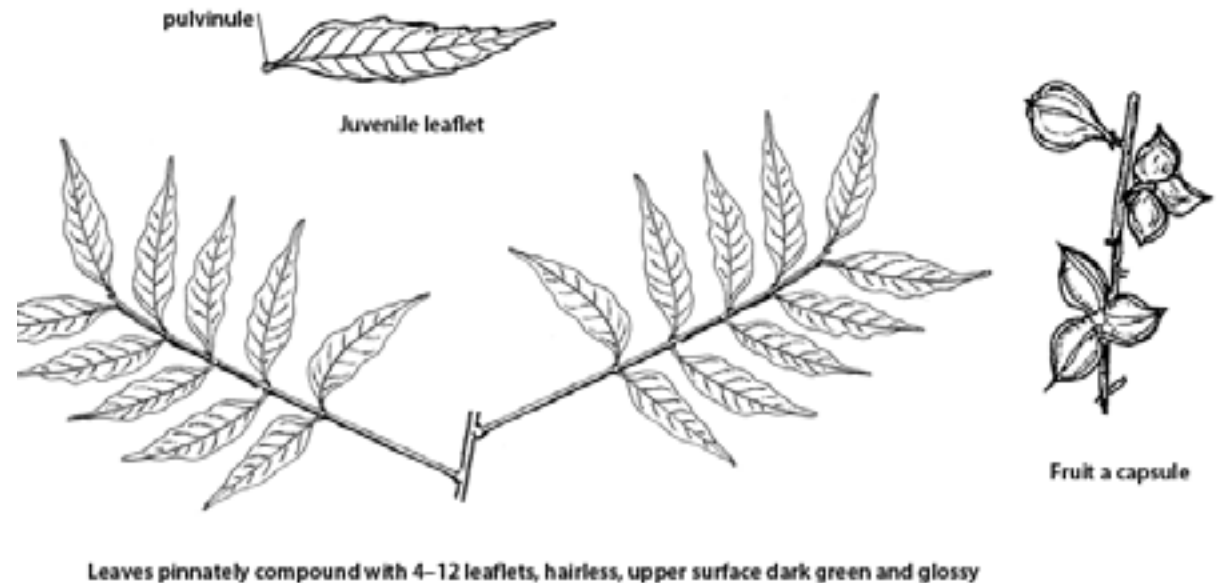
Leichhardtia longiloba (Slender Milk Vine)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	vulnerable
	Nature Conservation (Plants) Regulation 2020	vulnerable
Distribution Extent:	This species grows from Barrington Tops NSW to Mount Glorious north of Brisbane QLD. It occurs in subtropical and littoral rainforest in disjunct populations with only a few records on the Gold Coast including Springbrook, Bonogin, Mudgeeraba and Guanaba.	
Occurrence on-site:	Found in several locations on mid-slopes in moist Eucalyptus forest.	
Total stems on-site:	>120 including climbing vines and root suckers over several locations.	



Lepiderema pulchella (Fine-leaved Tuckeroo)

Very symmetrical tree, especially when young. Full and dense foliage when in all-round light. Striking bright purple new growth tending to yellow and then light green as the pinnate leaves gradually mature to a dark green. Finely toothed leaflets in juvenile plants gradually tending to almost toothless in mature trees.



A small tree to 15m high with dense compound foliage. New growth is very colourful, ranging through red, bronze, yellow and light green until maturing to dark green.

Lepiderema pulchella (Fine-leaved Tuckeroo)



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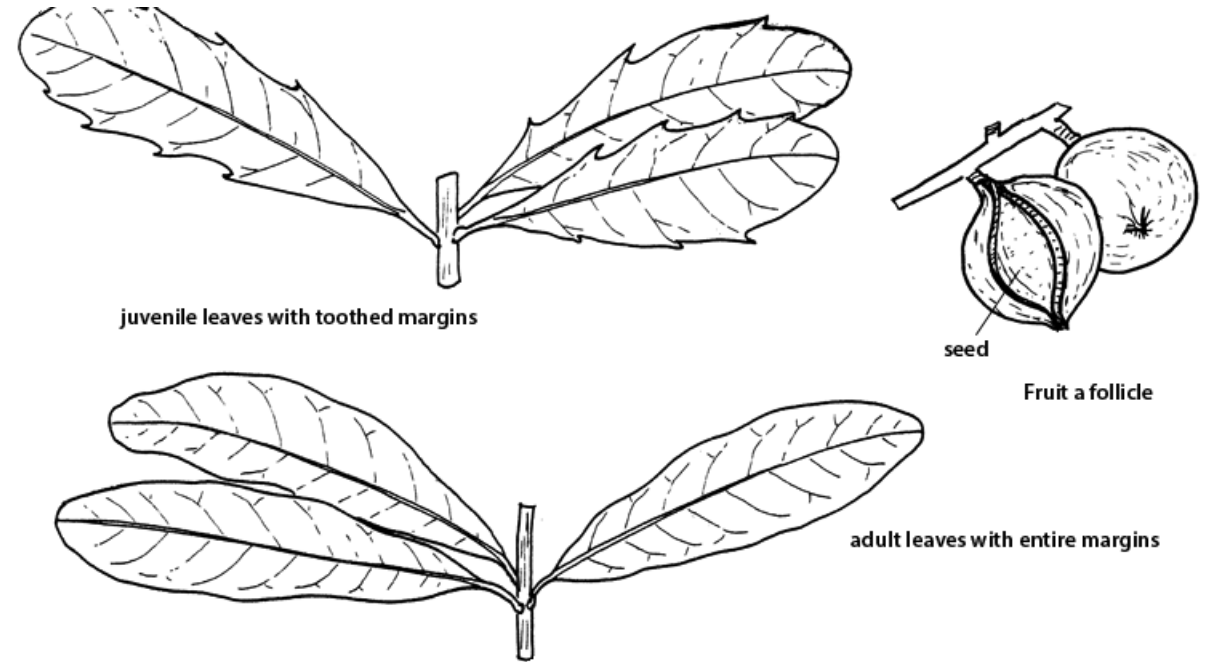
Lepiderema pulchella (Fine-leaved Tuckeroo)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	not listed
	Nature Conservation (Plants) Regulation 2020	vulnerable
Distribution Extent:	This species grows in subtropical rainforest and the wet sclerophyll forest ecotone from the Tweed River in NSW to near Neranwood, QLD with a small disjunct population in the Sunshine Coast hinterland. It can be locally prevalent in some locations.	
Occurrence on-site:	Occurs in only a few scattered locations with suitable perch sites in upper gullies, on creek lines and on lower slopes.	
Total stems on-site:	98	



Macadamia integrifolia (Macadamia Nut)

Hard leathery leaves in whorls of typically three though rarely 4 or 5. Several distinctive teeth on leaf margins (compared to many teeth on *M. tetraphylla*) which are quickly lost as the plant matures, the mature leaves retaining only a few teeth. New growth is green, as opposed to red in *M. tetraphylla*. Widely planted so can be difficult to tell naturally occurring stock near modified areas within its range.



A medium tree to 20m high (though much less in cultivation) with compound foliage and a dense crown with stiff leathery leaves. Panicles of white flowers followed by edible nuts.

Macadamia integrifolia (Macadamia Nut)



© Hugh Nicholson © Glenn Leiper, Rainforest Plants of Australia, Gwen Harden Publishing

Macadamia integrifolia (Macadamia Nut)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	vulnerable
	Nature Conservation (Plants) Regulation 2020	vulnerable
Distribution Extent:	This species grows from Currumbin Valley north to Mount Bauple near Gympie in rainforest and rainforest edges.	
Occurrence on-site:	Only a few scattered locations in various vegetation types. Several planted specimens in the middle portions of the site that could be parent plants. Most observation were of seedlings.	
Total stems on-site:	10 scattered trees and dozens of nearby seedlings.	



Macadamia tetraphylla (Queensland Nut)

Hard leathery leaves in whorls of typically four (tetra meaning four, phylla meaning leaves) though rarely 3 or 5. Many distinctive teeth along the leaf margins (compared to several on *M. integrifolia*), mostly retained in mature plants. New growth is maroon-red, as opposed to *M. integrifolia* which is green.



Leaves thick, stiff, surfaces hairless, usually whorls of 4, sometimes 3 or 5.

Macadamia tetraphylla (Queensland Nut)



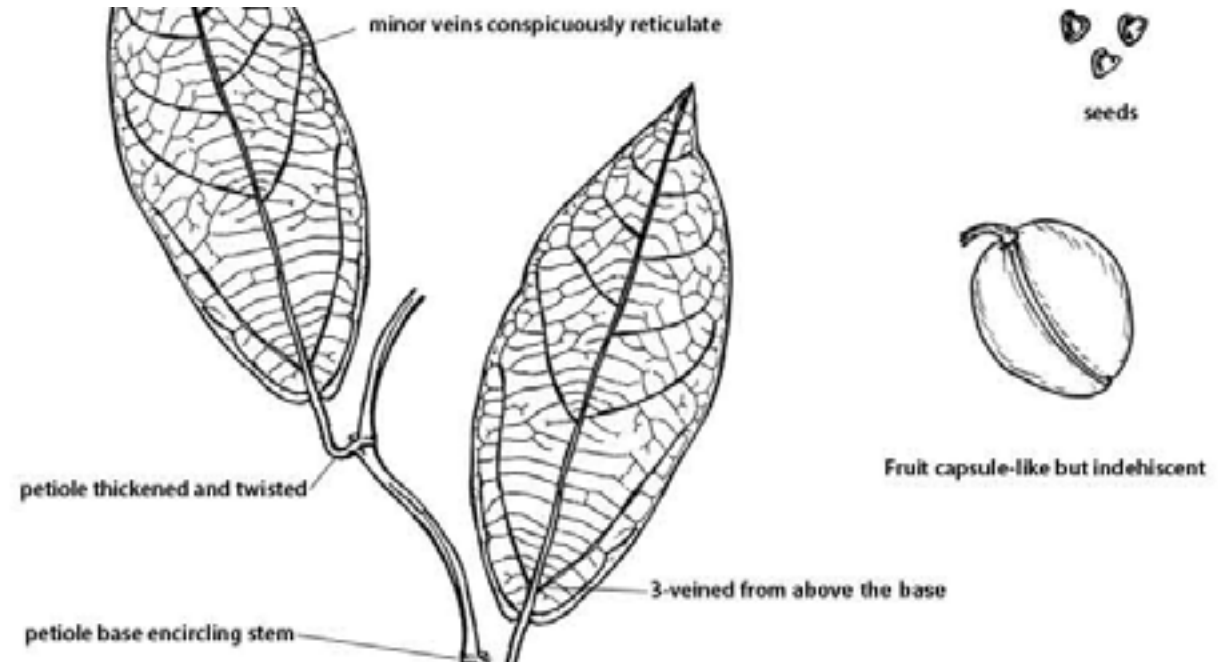
Macadamia tetraphylla (Queensland Nut)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	vulnerable
	Nature Conservation (Plants) Regulation 2020	vulnerable
Distribution Extent:	While much of its habitat has been cleared, this species is found from the Richmond River NSW north to Mt Cotton SEQ, in rainforests, and in moist and wet sclerophyll forests.	
Occurrence on-site:	Only one location was observed, as a young sapling (~1.5m). Given the known nearby populations, surprisingly this species was not found elsewhere on the site, but it is likely to occur in the future.	
Total stems on-site:	1	



Pararistolochia praevenosa (Birdwing Butterfly Vine)

Hard leathery leaves, distinctively 3-veined from the base and conspicuously reticulate. Tough wiry vine, very difficult to break (though you shouldn't be trying!). Only observed in lower sections of one gully on-site (to date).



A large woody climber with stiff leathery leaves. Young leaves are the food sources for pupae of the threatened Richmond Birdwing Butterfly.

Pararistolochia praevenosa (Birdwing Butterfly Vine)



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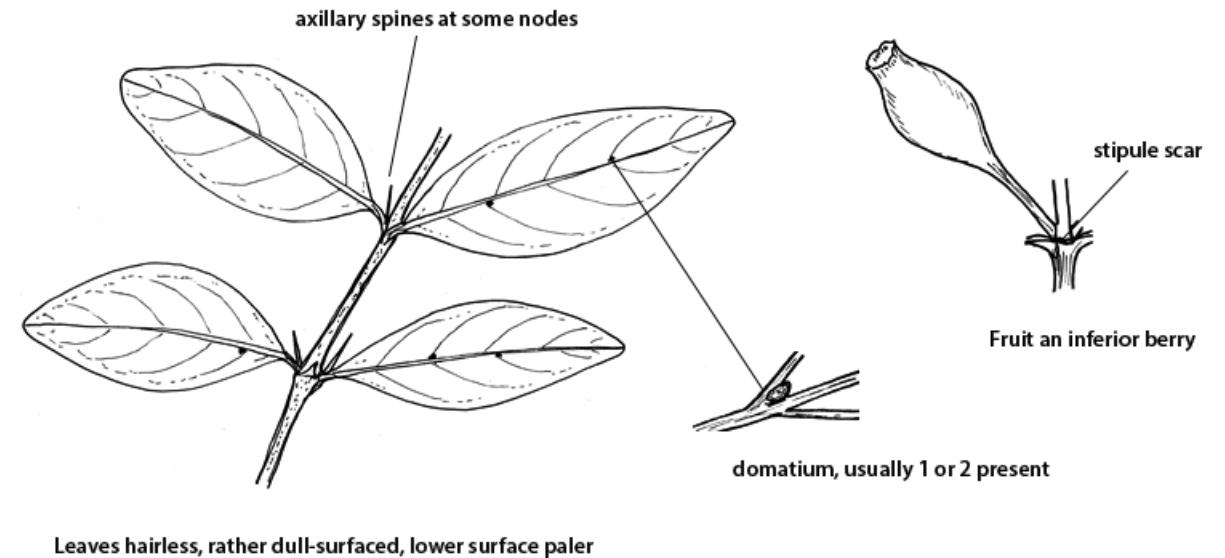
Pararistolochia praevenosa (Birdwing Butterfly Vine)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	vulnerable
	Nature Conservation (Plants) Regulation 2020	near threatened
Distribution Extent:	This species grown in limited locations in subtropical rainforest from north of Wardell NSW to near Kin Kin QLD.	
Occurrence on-site:	This vine was observed in just one portion of a lower gully and included dozens from stems reaching 20m into the sub-canopy. Both male and female Richmond Birdwing Butterflies were observed on the vines.	
Total stems on-site:	Several dozen stems.	



Randia moorei (Spiny Gardenia)

Small dull-green opposite leaves with distinct axillary spines on some but not all nodes, more pronounced on juvenile growth. Small interpetiolar stipules to 2mm on new growth. Very upright with horizontal branching habit. When immature can be confused with *Carrissa ovata* (simple or branched spines between leaf bases, not at the nodes and which has milky sap) and *Maclura cochinchinensis* (alternate leaves, spines longer than leaves on juvenile plants).



Shrub or small tree to 10m high with opposing spines on young branchlets and small, white, fragrant flowers.

Randia moorei (Spiny Gardenia)



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Randia moorei (Spiny Gardenia)

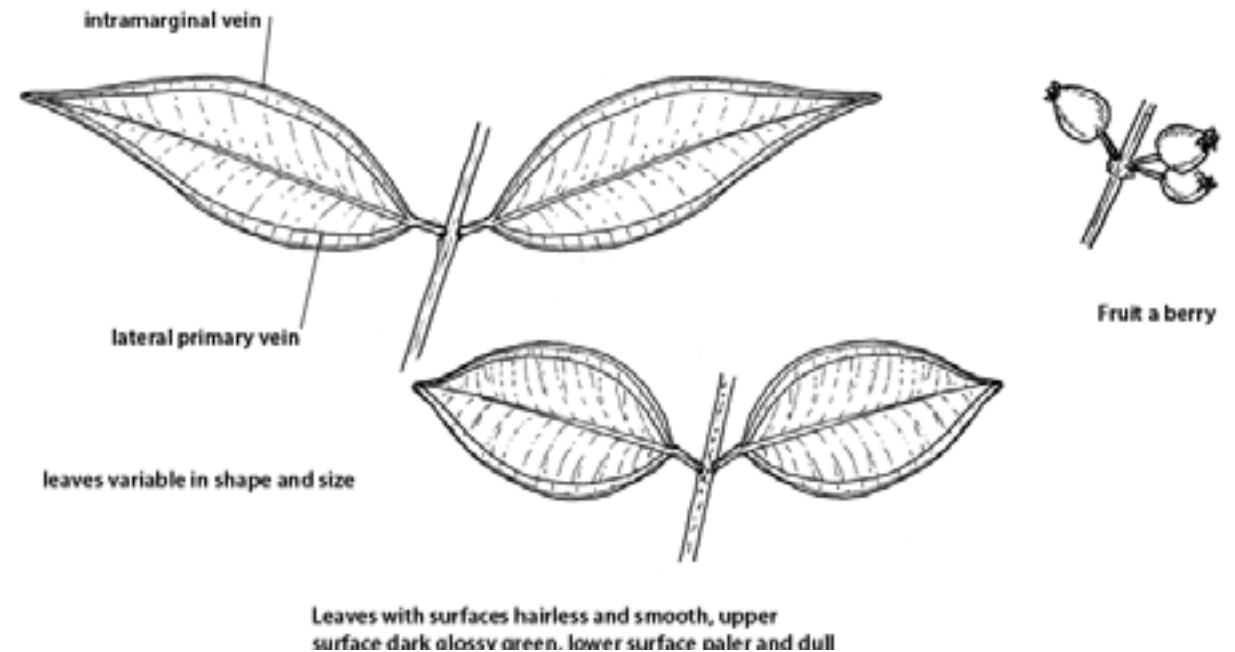
Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	endangered
	Nature Conservation (Plants) Regulation 2020	endangered
Distribution Extent:	This species grows in limited locations in subtropical and littoral rainforest from near Lismore NSW to Beenleigh QLD.	
Occurrence on-site:	Restricted to only a few locations, most of which were seedlings. However, one location comprised a more mature copse of 6 stems to 08m. Small amounts of healthy near-ripe fruit were observed at this copse.	
Total stems on-site:	<10 stems	



Rhodamnia maideniana (Smooth Scrub Turpentine)

Leaves distinctly three-veined with laterals intramarginal and continuing to the apex, dark glossy green above, paler below. New growth deep pink to red to purple; however, new leaves are almost always seen with Myrtle Rust as either bright yellow pustules or are scarred brown and deformed. Flowers and fruit rarely seen due to Myrtle Rust.

Note: Myrtle Rust has drastically reduced flowering and fruiting specimens of this species.



Shrub or small tree to 5m with pink to red new growth maturing to glossy green leaves.

Rhodamnia maideniana (Smooth Scrub Turpentine)



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Rhodamnia maideniana (Smooth Scrub Turpentine)

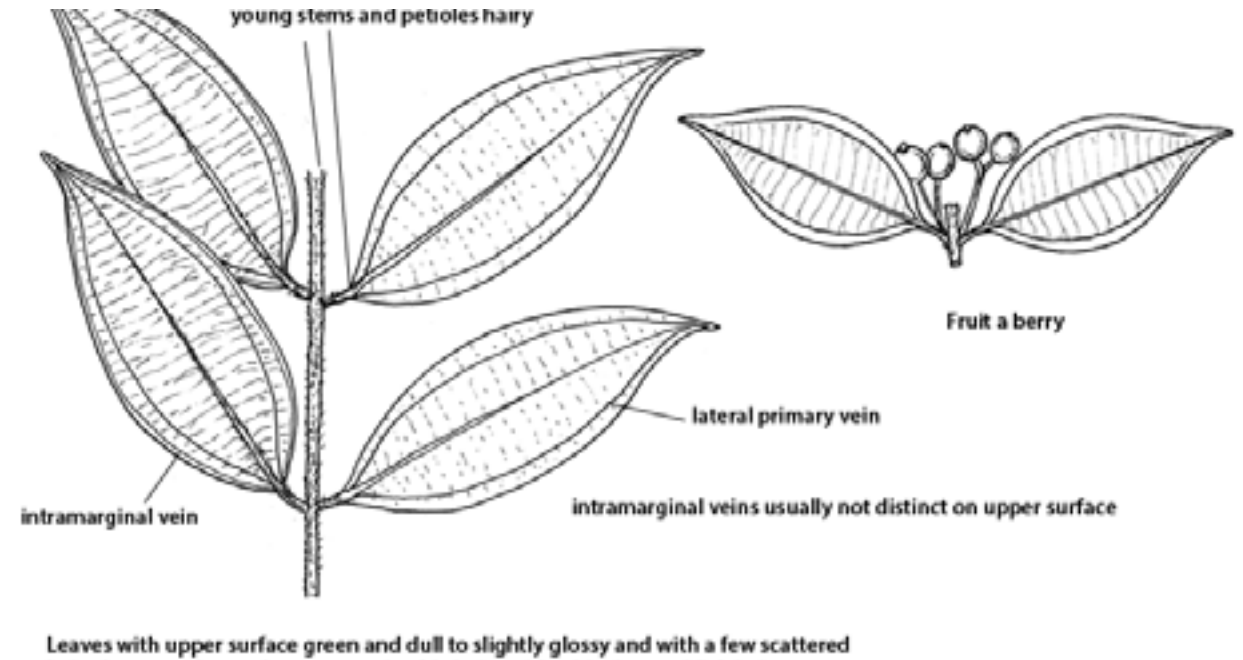
Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	critically endangered
	Nature Conservation (Plants) Regulation 2020	critically endangered
Distribution Extent:	This species grows in subtropical rainforest from the Richmond River NSW to the Little Nerang River north of Springbrook QLD.	
Occurrence on-site:	Restricted to mostly southern portions in moist lower and rainforest gullies and near stream banks.	
Total stems on-site:	Approx. 182 stems.	



Rhodamnia rubescens (Scrub Turpentine)

Leaves distinctly three-veined with lateral veins intramarginal and continuing to the apex, upper surface dull green with scattered hairs, lower surface paler, softly hairy. Stems often multi or occurring in copses, bark is reddish brown, fissured and scaly. Most specimens observed on site have been severely affected by Myrtle Rust and healthy plants were uncommon. Flowers and fruit rarely seen due to Myrtle Rust.

Note: Myrtle Rust has drastically reduced flowering and fruiting specimens of this species.



Medium tree to 25m, typically growing in copses of several to several dozen stems within close proximity.

Rhodamnia rubescens (Scrub Turpentine)



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Rhodamnia rubescens (Scrub Turpentine)

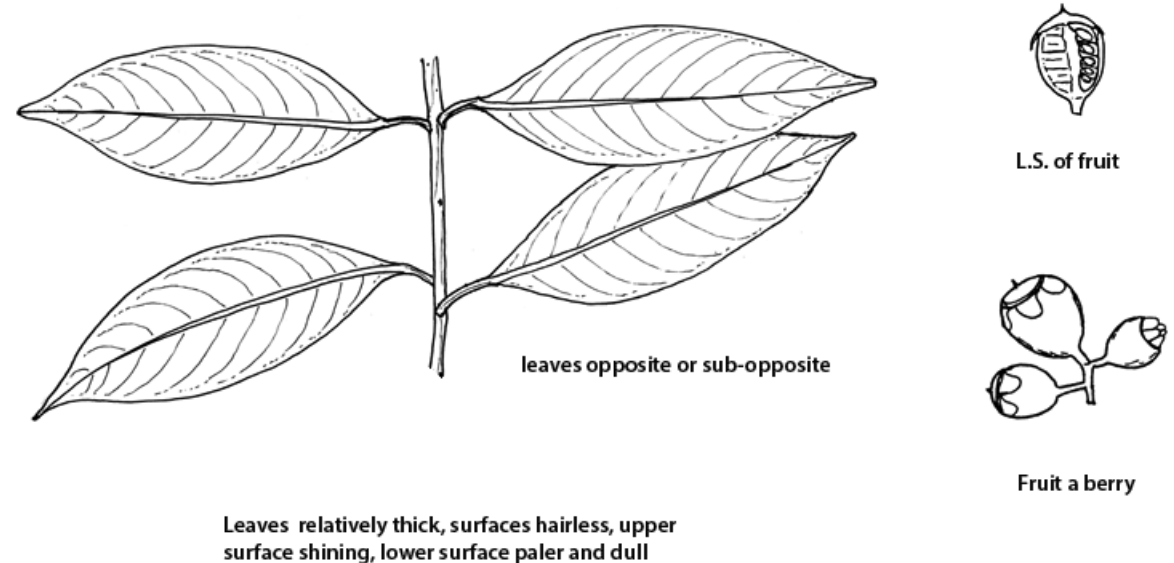
Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	critically endangered
	Nature Conservation (Plants) Regulation 2020	critically endangered
Distribution Extent:	Wide distribution from Durras Mountain near Bateman’s Bay NSW to Mount Bauple near Maryborough QLD.	
Occurrence on-site:	Widely distributed in mid-to-lower slopes under Eucalyptus canopy, more pronounced on lower moist slopes.	
Total stems on-site:	Approx. 968 stems counted.	



Rhodomyrtus psidioides (Native Guava)

Leaves simple, opposite or sub-opposite, large, pinnately veined, purplish new growth with purple stems. Only small root suckers were observed on-site, often in clusters and almost always showing signs of Myrtle Rust. This species has been near-annihilated by Myrtle Rust. Flowers and fruit rarely if ever seen now due to Myrtle Rust.

Note: Myrtle Rust has drastically reduced flowering and fruiting specimens of this species.



Shrub or small tree to 12m, often occurring in corpses of several dozen stems. However this is now historical information

Rhodomyrtus psidioides (Native Guava)



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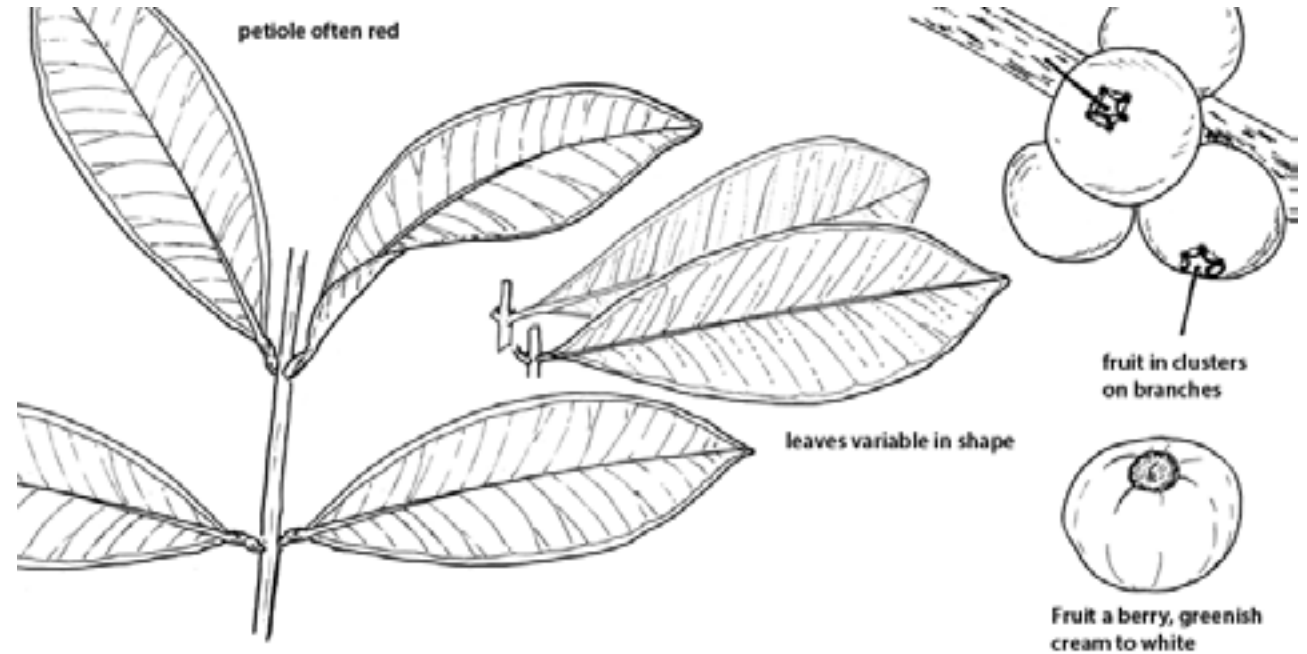
Rhodomyrtus psidioides (Native Guava)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	critically endangered
	Nature Conservation (Plants) Regulation 2020	critically endangered
Distribution Extent:	Once widely distributed from Gosford NSW north to Tinana Creek near Maryborough QLD.	
Occurrence on-site:	Occurred in mid-to-lower moist slopes under canopy. Without exception, all plants are root suckers less than 50cm high with most no higher than 20cm. All mature plants are dead.	
Total stems on-site:	Approx. 605 root suckers counted.	



Syzygium moorei (Coolamon)

Very distinctive tree in all its forms. Leaves large, simple, opposite, leathery, glossy green with a distinctive red or purple petiole. Bark is usually light brown with pale pink hues and has soft papery scales. Flowers are cauliflorous and spectacular, watermelon coloured. Base of trunk usually flanged, even on young trees, buttressed on older trees. Often seen with numerous seedlings near a parent tree.



Medium to large tree to 40m, large glossy leaves, flanged to sometimes buttressed base in large trees. Has a distinctive pink colouration to the outer bark.

Syzygium moorei (Coolamon)



© Hugh Nicholson © Terry Tame, Rainforest Plants of Australia, Gwen Harden Publishing

Syzygium moorei (Coolamon)

Conservation Status:	Environment Protection and Biodiversity Conservation Act 1999	<i>vulnerable</i>
	Nature Conservation (Plants) Regulation 2020	<i>vulnerable</i>
Distribution Extent:	Occurs in lowland subtropical rainforest from Richmond River NSW north to Mudgeeraba QLD.	
Occurrence on-site:	Occurred in only a few locations as a few large old remnant trees but also as numerous juvenile plants ready for the next generation.	
Total stems on-site:	6 larger trees and 35 younger specimens.	





Further Information

- Further information is available via EDQ's Have Your Say website at [Currumbin Eco-Parkland](#).
- If any species are observed on site that are not recorded, please contact your EDQ Representative.

Several threatened species were anticipated but have not yet been observed on site.

EDQ's ecological restoration efforts will extend beyond currently mapped areas.





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Attachment 9:Monitoring Documents

Photo Monitoring Template

Daily Record Sheet Example

Weed Dominance Survey Template (Quaternary)

Secondary Survey Template

BioCondition Site Assessment Data Sheet

DESI Values Based Management System Monitoring Sheets

Daily Record Sheet

Currumbin Eco-Parkland – Ecological Restoration Works

Team Leader's Name:

Company Representing:

Date: [choose default]

Vehicle registration:

Staff in attendance:

- ☐ Name 1
- ☐ Name 2
- ☐ Name 3 etc.

Number of persons:

- ☐ 1
- ☐ 2
- ☐ 3 etc.

Sub-Zone Worked:

[Choose from selected drop down]

Sub-Zone 1.1

Sub-Zone 1.2

Sub-Zone 1.3 etc

Primary Time in hours:

- ☐ 1hr
 - ☐ 2hrs
 - ☐ 3hrs etc
-

Follow up time in hours:

- ☐ 1hr
 - ☐ 2hrs
 - ☐ 3hrs etc
-

Plants Treated

Vine

- ☐ *Asparagus plumosus*
 - ☐ *Passiflora edulis*
 - ☐ *Solanum seaforthianum*
 - ☐ Etc
-

Grass

- ☐ *Melinis minutiflora*
 - ☐ *Paspalum mandiocanum*
 - ☐ etc
-

Soft weed / herb

- ☐ *Callisia repens*
 - ☐ *Commelina benghalensis*
 - ☐ etc
-

Woody weed

- ☐ *Lantana camara*
 - ☐ *Senna pendula*
 - ☐ etc
-

Tree / palm

☐ *Cinnamomum camphora*

☐ *Spathodea campanulata*

☐ etc

Cinnamomum camphora >5cm dbh treated:

at

~ Dbh (cm)

at

~ Dbh (cm) etc.

Chemical Usage

Dicamba used (ml)

Glyphosate (ml)

Starane (ml)

Dye (ml)

Other etc

General Site Comments

.....

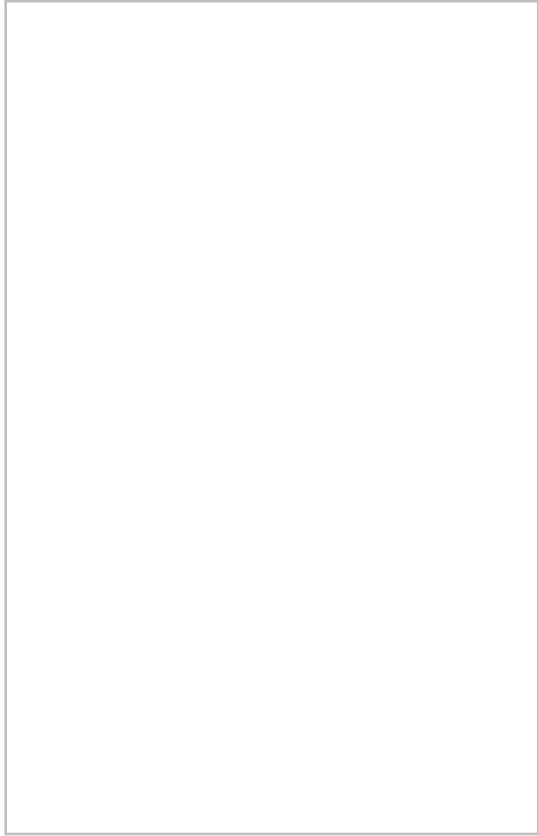
Quaternary Plot No.1.1.1

Regional Ecosystem:

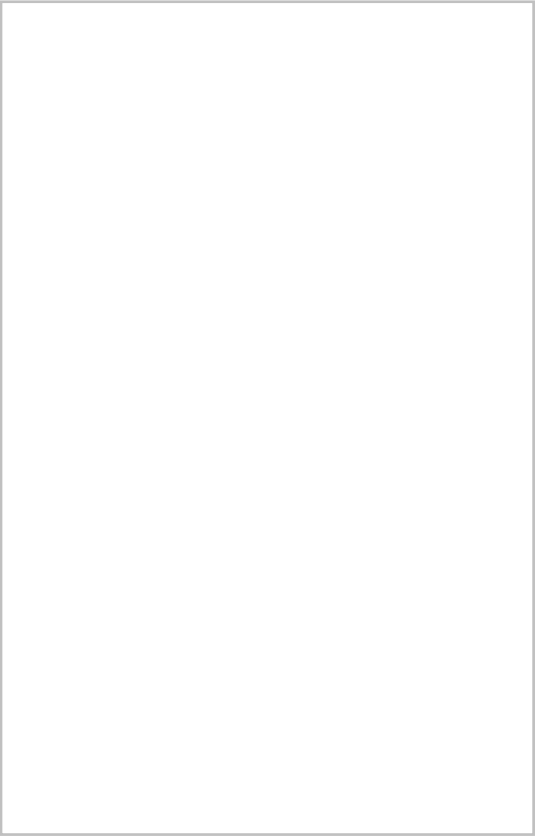
Sub-Zone 1

Date Photo Taken:

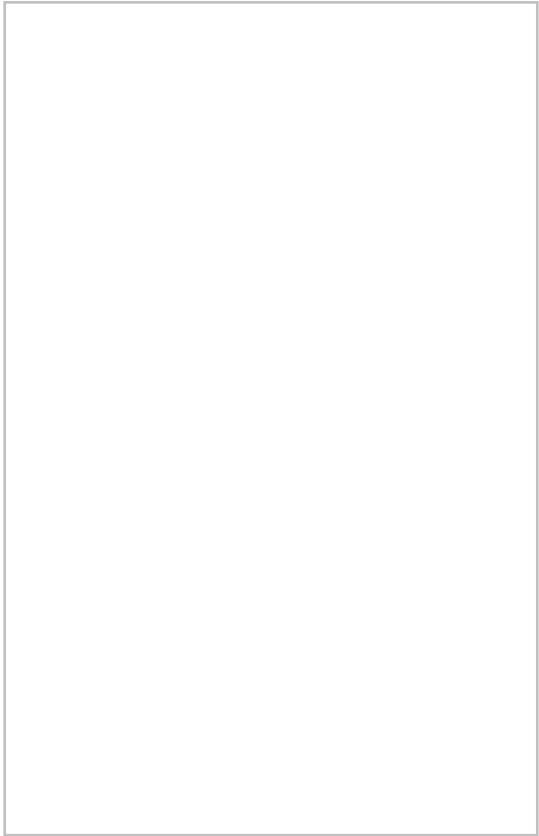
North



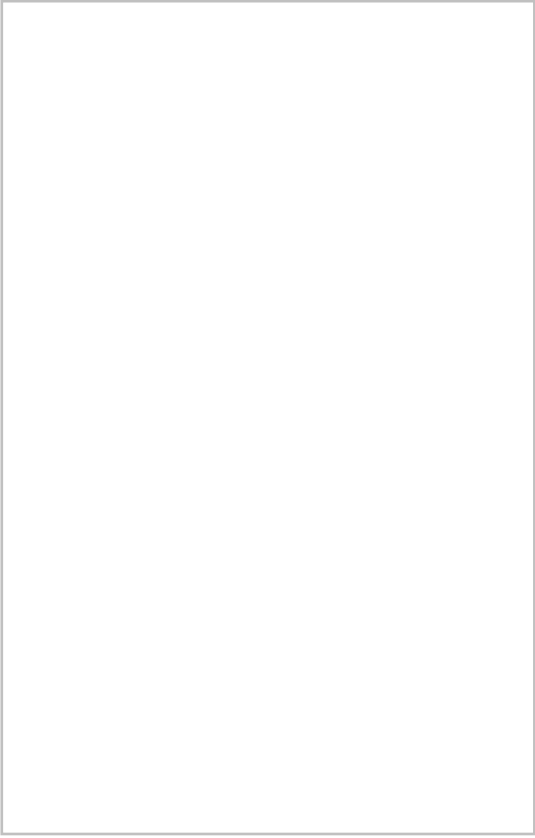
East



South



West



Sub-Zone _____ Plot _____

Date:

RE			
Landform			
EDL height		Crown cover	
Photos			
Dominant Vegetation			
Weed incursion			
General description			
Highlighted species			

CEP - weed list for Q plot monitoring

Dominance: 0 = none, 5 = dominant

[illegible]

[illegible]

Version 2.5 21/09/2023 The Database Manager, DES Queensland Herbarium and Biodiversity Science: 3199 7659

Five 1 x 1m plots:

Ground Cover:	1	2	3	4	5	Mean
Native perennial ('decreaser') grass cover*						
Native other grass (if relevant)*						
Native forbs and other species (non-grass)						
Native shrubs (<1m in height)						
Non-native grass						
Non-native forbs and shrubs						
Litter*						
Rock						
Bare ground						
Cryptogams						
Total	100%	100%	100%	100%	100%	

Total: _____

[illegible]

Total	Distance (m)	Shrubs*	Total	Distance (m)	Shrubs*	Total	Distance (m)	Shrubs*	Total	Distance (m)	Shrubs*	Total	Distance (m)	Shrubs*	Total
												Total native:			
												Total exotic:			

Attachment 2 – Record sheet: Natural Values Health Checks

Park name (& section): Currumbin Eco-Parkland

Recorder/s: Jess Rosewell, David Jinks, Kylie Stanfield, Luke Nott, Kombumerri Rangers

Value¹: Blackbutt Tall Open Forest

Site Details (for permanent and non-permanent sites):

Site Id.		GPS Location (Datum: WGS_1984)	Permanent site & photo point established (Y/N)	Approx. site area	Date assessed (d/m/y)
1	BTOF Roo Break	-28.168996 153.459023	Yes	50x50m	10/04/24
2	BTOF Piccabeen	-28.177118 153.457440	Yes	50x50m	24/04/24
3					
4					
5					

Site & photo point definition

In many cases it will not be necessary to precisely define the boundary of your sites in order to ensure that the next time you (or a colleague) do the Health Check you use exactly the same areas.....a few metres either side will not be a problem. However, in some circumstances the definition of your sites will be important. Is it likely that someone else coming to do the Health Check in future could be confused about what might or might not be included in the site you are establishing? If so, then provide clear details about your site and its boundary below. Details about why you chose the site may also be useful.

For permanent sites describe how the photos were/are to be taken. Record photo numbers here also.

Site 1 50x50m site to the west of Roo Break. GPS location is middle of site.

Site 2 50x50m site up old fire break to east of Piccabeen Road. GPS location is middle of site.

Site 3

Site 4

Site 5

1. Use the name provided in the management plan/statement (or Values Assessment & Assessment & Monitoring Strategy if no plan)

Condition class summary

Record: the Condition Class that you determine for the value (ecosystem, vegetation community, habitat) at each inspection site for each Health Check Indicator (HCI); your general impression of the condition of the value across the park for each HCI (based on site results and other observations – note that the Condition Class you record as your general impression IS NOT an ‘average’ of the Condition Classes at each site. It IS your considered opinion about the state of the value across the park based on the site results and your observations as you drive/walk/fly between sites); and the overall condition of the value across the park based on the IUCN definitions (Table 2.2). Where it is relevant, provide information on factors contributing to the Condition Class assigned to an inspection site, in Table 2.3. Details relevant to your determination of the General Impression and Overall Condition Class can be recorded in Table 2.4 and the notes field below Table 2.4, respectively.

If a new location for a significant pest species is found during the inspection it must be recorded in the relevant departmental databases (e.g. Pest Management System, WildNet) and a specimen lodged with Qld Herbarium.

Table 2.1 Record of the Condition Class for a key ecosystem/habitat.

Key: **G = good**; **GC = good with some concerns**; **SC = significant concern**; **C = critical**; **NA = not applicable**.

Health Check Indicator	Condition Class					General impression
	Site 1	Site 2	Site 3	Site 4	Site 5	
						Not an ‘average’!
1. Infestations of ecosystem-changing pest plants	GC	GC				GC
2. Infestations of pest plants other than ecosystem-changers	GC	GC				GC
3. Risk of future invasion by significant pest plants not already present	GC	GC				GC
4. Rainforest invasion	GC	GC				G
5. Woody thickening (other than by rainforest species)	G	G				G
6. Overgrazing/browsing by feral animals, stray stock or natives	G	G				G
7. Trampling, digging or rooting or trampling by visitors	G	G				G
8. Impacts on wetlands	N/A	N/A				N/A
9. Vehicle impacts	G	G				GC
10. Dumping	G	G				G
11. Ground cover	G	G				G
12. Fire damage to fire-sensitive and non fire-dependent ecosystems	N/A	N/A				N/A
13. Fire damage to peat-based ecosystems	N/A	N/A				N/A
14. Age class distribution in fire-adapted ecosystems in conservation....	SC	GC				GC
15. Severe wildfire in fire-adapted wooded ecosystems	G	G				G
16. Severe storm, cyclone or tornado in wooded ecosystems	G	G				G
17. Overtopping, erosion and associated impacts resulting.....	G	G				G
18. Tree/shrub health and dieback	GC	G				GC
19. Key features for faunal biodiversity in terrestrial ecosystems	GC	GC				GC
20. Recruitment of canopy species	SC	SC				SC
Overall Condition Class (refer Table 2.2)						GC

Table 2.2 Overall Condition Class – what the categories mean.				
Good	The Key Value is in good condition and is likely to be maintained for the foreseeable future, provided that current conservation measures are maintained.			
Good with some concern	The Key Value is likely to be essentially maintained over the long-term with minor additional conservation measures to address existing concerns.			
Significant concern	The Key Value is threatened by a number of current and/or potential threats. Significant additional conservation measures are required to preserve the value over the medium to long-term.			
Critical	The Key Value is severely threatened. Urgent additional large-scale conservation measures are required or the value may be lost.			
Trigger for management response:	Maintain effort	Minor attention required	Required prompt decision &/or planned course of action	Requires urgent decision re course of action

Table 2.3 Information, including key issues/threats, relevant to determining the condition of the value

Health Check Indicator	Notes
1. Ecosystem-changing pest plants	1. Occasional lantana and camphor laurel 2. Occasional lantana and small camphor laurel
2. Pest plants other than ecosystem-changers	1. Occasional passiflora, asparagus, cassia, umbrella 2. Occasional Passiflora, ochna and paspalum
3. Risk of future invasion by significant pest plants	1. Cats claw creeper nearby 2. Cats claw creeper nearby
4. Rainforest invasion	1. Flindersia bennettii as seedlings 2. One celerywood, occasional to common psychotria
5. Woody thickening (other than by rainforest species)	1. None 2. None
6. Over-grazing/over-browsing by feral animals, stray stock or native animals	1. None 2. None
7. Trampling, digging or rooting ... or trampling by visitors	1. None 2. None
8. Impacts on wetlands	1. N/A 2. N/A
9. Vehicle impacts	1. None 2. Historical vehicle track through site but regrowth over top
10. Dumping	1. None 2. None
11. Ground cover	1. >70% 2. >70%
12. Fire damage to fire-sensitive & non fire-dependent ecosystems	N/A
13. Fire damage to peat-based ecosystems	N/A
14. Age class distribution in fire-adapted ecosystems...	1. Some adults dead/senescing and no juveniles 2. Very few juveniles but adults not senescing
15. Severe wildfire in fire-adapted ecosystems	1. None 2. None
16. Severe storm, cyclone, tornado	1. None 2. None
17. Overtopping, scouring & assoc. impacts resulting ...	1. None 2. None
18. Tree/shrub health and dieback	1. Occasional dead tree, slightly more than expected, likely died from previous droughts 2. A couple of dead trees from quite some time ago but all others healthy
19. Key features for faunal biodiversity in terrestrial...	1. No hollows, occasional weeds 2. Only occasional small hollows, occasional weeds
20. Recruitment of canopy species	1. Occasional dead trees but rest not senescing but no juveniles 2. Very few juveniles

Table 2.4 Information relevant to the determination of the *General Impression* for a Health Check Indicator.

Health Check Indicator	Notes
1. Ecosystem-changing pest plants	Occasional lantana and camphor laurels throughout
2. Pest plants other than ecosystem-changers	Numerous throughout including, passiflora, asparagus, cassia, umbrella, ochna, paspalum etc.
3. Risk of future invasion by significant pest plants	Cats claw creeper nearby but prefers riparian/wetter areas.
4. Rainforest invasion	Only very occasional rainforest species due to lack of fire
5. Woody thickening (other than by rainforest species)	None
6. Over-grazing/over-browsing by feral animals, stray....	None
7. Trampling, digging or rooting.... or trampling by visitors	Non
8. Impacts on wetlands	N/A
9. Vehicle impacts	Mountain bike tracks in SW corner of key value
10. Dumping	None
11. Ground cover	>70% throughout
12. Fire damage to fire-sensitive & non fire-dependent ecosystem	N/A
13. Fire damage to peat-based ecosystems	N/A
14. Age class distribution in fire-adapted ecosystems...	Unknown time since fire, over 20yrs, but still burnable
15. Severe wildfire in fire-adapted ecosystems	None
16. Severe storm, cyclone, tornado	None
17. Overtopping, scouring & assoc. impacts resulting...	None
18. Tree/shrub health and dieback	Occasional senesced tree, slightly more than expected, possibly from previous drought, otherwise good
19. Key features for faunal biodiversity in terrestrial	Occasional weeds but otherwise good
20. Recruitment of canopy species	Very few juveniles but adults mostly still healthy

Notes relevant to the determination of the Overall Condition Class:

Needs attention in terms of fire and weed management. Budget available and management of site about to begin.

New or emerging issues noticed (anywhere on the park) while undertaking an inspection

Make a note in Table 2.5 of localised disturbances, biosecurity breaches or issues that require attention to prevent degradation and significant resource input in the future (e.g. a new infestation of an ecosystem-changing weed; illegal dumping; graffiti at a cultural site; pollution event; erosion; tree-fall across a track resulting in new tracks) or pose risk to life and property, or significantly impact on visitor experience (e.g. overcrowding; excessive noise; conflict amongst user groups).

Determine, with your in-line managers, an agreed management response and desired outcome – record these in Table 2.5 (or in a separate project plan if warranted). During future inspections evaluate the effectiveness of the management response in achieving the stated desired outcome – use the ratings below to do so.

Effectiveness of management response	Rating
Desired outcome achieved	1
Heading towards desired outcome	2
Situation static	3
Heading away from desired outcome	4

Table 2.5 Details of localised disturbances/issues requiring attention and effectiveness of management response.

Y = yes; N = no; P = partially

ISSUE 1							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							
ISSUE 2							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							
ISSUE 3							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							

Attachment 2 – Record sheet: Natural Values Health Checks

Park name (& section): Currumbin Eco-Parkland

Recorder/s: Jess Rosewell, Luke Nott, Kylie Stanfield, David Jinks, Natalie Hoskins, Katie & April

Value¹: Coastal Swamp Oak Forest

Site Details (for permanent and non-permanent sites):

Site Id.		GPS Location (Datum: WGS_1984)	Permanent site & photo point established (Y/N)	Approx. site area	Date assessed (d/m/y)
1	Swamp oak 1	-28.164763 153.459460	Yes	50x50	12/03/24
2					
3					
4					
5					

Site & photo point definition

In many cases it will not be necessary to precisely define the boundary of your sites in order to ensure that the next time you (or a colleague) do the Health Check you use exactly the same areas.....a few metres either side will not be a problem. However, in some circumstances the definition of your sites will be important. Is it likely that someone else coming to do the Health Check in future could be confused about what might or might not be included in the site you are establishing? If so, then provide clear details about your site and its boundary below. Details about why you chose the site may also be useful.

For permanent sites describe how the photos were/are to be taken. Record photo numbers here also.

Site 1 On north side of main creek, from main access road, centre of site is located approx. 200m east (after 4th man-made drain and just before old spoil dump) then 30m north of informal vehicle track.
Site then 25m north, south, east, and west.

Site 2

Site 3

Site 4

Site 5

1. Use the name provided in the management plan/statement (or Values Assessment & Assessment & Monitoring Strategy if no plan)

Condition class summary

Record: the Condition Class that you determine for the value (ecosystem, vegetation community, habitat) at each inspection site for each Health Check Indicator (HCI); your general impression of the condition of the value across the park for each HCI (based on site results and other observations – note that the Condition Class you record as your general impression IS NOT an ‘average’ of the Condition Classes at each site. It IS your considered opinion about the state of the value across the park based on the site results and your observations as you drive/walk/fly between sites); and the overall condition of the value across the park based on the IUCN definitions (Table 2.2). Where it is relevant, provide information on factors contributing to the Condition Class assigned to an inspection site, in Table 2.3. Details relevant to your determination of the General Impression and Overall Condition Class can be recorded in Table 2.4 and the notes field below Table 2.4, respectively.

If a new location for a significant pest species is found during the inspection it must be recorded in the relevant departmental databases (e.g. Pest Management System, WildNet) and a specimen lodged with Qld Herbarium.

Table 2.1 Record of the Condition Class for a key ecosystem/habitat.

Key: **G = good**; **GC = good with some concerns**; **SC = significant concern**; **C = critical**; **NA = not applicable**.

Health Check Indicator	Condition Class					General impression
	Site 1	Site 2	Site 3	Site 4	Site 5	
						Not an ‘average’!
1. Infestations of ecosystem-changing pest plants	GC					SC
2. Infestations of pest plants other than ecosystem-changers	GC					GC
3. Risk of future invasion by significant pest plants not already present	GC					SC
4. Rainforest invasion	G					G
5. Woody thickening (other than by rainforest species)	G					G
6. Overgrazing/browsing by feral animals, stray stock or natives	GC					GC
7. Trampling, digging or rooting or trampling by visitors	GC					GC
8. Impacts on wetlands	GC					GC
9. Vehicle impacts	G					GC
10. Dumping	G					G
11. Ground cover	G					G
12. Fire damage to fire-sensitive and non fire-dependent ecosystems	G					G
13. Fire damage to peat-based ecosystems	N/A					N/A
14. Age class distribution in fire-adapted ecosystems in conservation....	N/A					N/A
15. Severe wildfire in fire-adapted wooded ecosystems	N/A					N/A
16. Severe storm, cyclone or tornado in wooded ecosystems	G					G
17. Overtopping, erosion and associated impacts resulting.....	G					G
18. Tree/shrub health and dieback	GC					G
19. Key features for faunal biodiversity in terrestrial ecosystems	GC					GC
20. Recruitment of canopy species	G					G
Overall Condition Class (refer Table 2.2)						GC

Table 2.2 Overall Condition Class – what the categories mean.				
Good	The Key Value is in good condition and is likely to be maintained for the foreseeable future, provided that current conservation measures are maintained.			
Good with some concern	The Key Value is likely to be essentially maintained over the long-term with minor additional conservation measures to address existing concerns.			
Significant concern	The Key Value is threatened by a number of current and/or potential threats. Significant additional conservation measures are required to preserve the value over the medium to long-term.			
Critical	The Key Value is severely threatened. Urgent additional large-scale conservation measures are required or the value may be lost.			
Trigger for management response:	Maintain effort	Minor attention required	Required prompt decision &/or planned course of action	Requires urgent decision re course of action

Table 2.3 Information, including key issues/threats, relevant to determining the condition of the value

Health Check Indicator	Notes
1. Ecosystem-changing pest plants	1. Devils fig patch on margin of site, odd seedling throughout. 2.
2. Pest plants other than ecosystem-changers	1. Cassia, pepper, paspalum, setaria all occasional to common 2.
3. Risk of future invasion by significant pest plants	1. Cats claw nearby being controlled but site is located on flood plain (external seeds washed down). 2.
4. Rainforest invasion	1. None 2.
5. Woody thickening (other than by rainforest species)	1. None 2.
6. Over-grazing/over-browsing by feral animals, stray stock or native animals	1. Some previous evidence of grazing but cattle now removed, should recover 2.
7. Trampling, digging or rooting ... or trampling by visitors	1. Previous cow tracks, cattle now removed. 2.
8. Impacts on wetlands	1. Some minor disturbance, no altered flow, no erosion, water quality good 2.
9. Vehicle impacts	1. None 2.
10. Dumping	1. None 2.
11. Ground cover	1. Over 70% leaf litter, sedges etc. 2.
12. Fire damage to fire-sensitive & non fire-dependent ecosystems	1. None 2.
13. Fire damage to peat-based ecosystems	1. N/A 2.
14. Age class distribution in fire-adapted ecosystems...	1. N/A 2.
15. Severe wildfire in fire-adapted ecosystems	1. N/A 2.
16. Severe storm, cyclone, tornado	1. None 2. 3.
17. Overtopping, scouring & assoc. impacts resulting ...	1. None 2.
18. Tree/shrub health and dieback	1. Trees good but Einadia hastata, Alternanthera denticulate and Commelina diffusa all sprayed by contractors (but weeds left) 2.
19. Key features for faunal biodiversity in terrestrial...	1. Only occasional large trees, logs, also some weeds 2.
20. Recruitment of canopy species	1. Lots of juveniles present. 2.

Table 2.4 Information relevant to the determination of the *General Impression* for a Health Check Indicator.

Health Check Indicator	Notes
1. Ecosystem-changing pest plants	Cats claw, devils fig, callisia
2. Pest plants other than ecosystem-changers	Camphor laurel and various others
3. Risk of future invasion by significant pest plants	Key value is located on flood plain (external seeds washed down.
4. Rainforest invasion	None
5. Woody thickening (other than by rainforest species)	None
6. Over-grazing/over-browsing by feral animals, stray....	Over-grazing by cattle evident, cattle have now been removed so should recover
7. Trampling, digging or rooting.... or trampling by visitors	Trampling by cattle evident, cattle have now been removed so should recover
8. Impacts on wetlands	Some minor disturbance to banks, no altered flow, no erosion, water quality good
9. Vehicle impacts	Some widening of tracks with people driving around mud
10. Dumping	None
11. Ground cover	>70%
12. Fire damage to fire-sensitive & non fire-dependent ecosystem	None
13. Fire damage to peat-based ecosystems	N/A
14. Age class distribution in fire-adapted ecosystems...	N/A
15. Severe wildfire in fire-adapted ecosystems	N/A
16. Severe storm, cyclone, tornado	None
17. Overtopping, scouring & assoc. impacts resulting...	None
18. Tree/shrub health and dieback	No obvious signs of dieback
19. Key features for faunal biodiversity in terrestrial	Only occasional large trees, very few hollows, occasional weeds
20. Recruitment of canopy species	Juveniles present

Notes relevant to the determination of the Overall Condition Class:

Cows have recently been removed, main issue going forward is weeds. Control of weeds expected to start soon (budget available).

New or emerging issues noticed (anywhere on the park) while undertaking an inspection

Make a note in Table 2.5 of localised disturbances, biosecurity breaches or issues that require attention to prevent degradation and significant resource input in the future (e.g. a new infestation of an ecosystem-changing weed; illegal dumping; graffiti at a cultural site; pollution event; erosion; tree-fall across a track resulting in new tracks) or pose risk to life and property, or significantly impact on visitor experience (e.g. overcrowding; excessive noise; conflict amongst user groups).

Determine, with your in-line managers, an agreed management response and desired outcome – record these in Table 2.5 (or in a separate project plan if warranted). During future inspections evaluate the effectiveness of the management response in achieving the stated desired outcome – use the ratings below to do so.

Effectiveness of management response	Rating
Desired outcome achieved	1
Heading towards desired outcome	2
Situation static	3
Heading away from desired outcome	4

Table 2.5 Details of localised disturbances/issues requiring attention and effectiveness of management response.

Y = yes; N = no; P = partially

ISSUE 1							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							
ISSUE 2							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							
ISSUE 3							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							

Attachment 2 – Record sheet: Natural Values Health Checks

Park name (& section): Currumbin Eco-Parkland

Recorder/s: Jess Rosewell, David Jinks, Kylie Stanfield, Luke Nott, Kombumerri Rangers

Value¹: Lowland Rainforest

Site Details (for permanent and non-permanent sites):

Site Id.		GPS Location (Datum: WGS_1984)	Permanent site & photo point established (Y/N)	Approx. site area	Date assessed (d/m/y)
1	LR 01	-28.170168 153.459772	Yes	50x50m	10/04/24
2	LR Couch Gully	-28.176497 153.455710	Yes	50x50m	24/04/24
3					
4					
5					

Site & photo point definition

In many cases it will not be necessary to precisely define the boundary of your sites in order to ensure that the next time you (or a colleague) do the Health Check you use exactly the same areas.....a few metres either side will not be a problem. However, in some circumstances the definition of your sites will be important. Is it likely that someone else coming to do the Health Check in future could be confused about what might or might not be included in the site you are establishing? If so, then provide clear details about your site and its boundary below. Details about why you chose the site may also be useful.

For permanent sites describe how the photos were/are to be taken. Record photo numbers here also.

Site 1 50x50m site in drainage line to west of Roo Break. GPS location is centre of site.

Site 2 50x50m site east of Piccabeen Road. GPS location is centre of site.

Site 3

Site 4

Site 5

1. Use the name provided in the management plan/statement (or Values Assessment & Assessment & Monitoring Strategy if no plan)

Condition class summary

Record: the Condition Class that you determine for the value (ecosystem, vegetation community, habitat) at each inspection site for each Health Check Indicator (HCI); your general impression of the condition of the value across the park for each HCI (based on site results and other observations – note that the Condition Class you record as your general impression IS NOT an ‘average’ of the Condition Classes at each site. It IS your considered opinion about the state of the value across the park based on the site results and your observations as you drive/walk/fly between sites); and the overall condition of the value across the park based on the IUCN definitions (Table 2.2). Where it is relevant, provide information on factors contributing to the Condition Class assigned to an inspection site, in Table 2.3. Details relevant to your determination of the General Impression and Overall Condition Class can be recorded in Table 2.4 and the notes field below Table 2.4, respectively.

If a new location for a significant pest species is found during the inspection it must be recorded in the relevant departmental databases (e.g. Pest Management System, WildNet) and a specimen lodged with Qld Herbarium.

Table 2.1 Record of the Condition Class for a key ecosystem/habitat.

Key: **G = good**; **GC = good with some concerns**; **SC = significant concern**; **C = critical**; **NA = not applicable**.

Health Check Indicator	Condition Class					General impression
	Site 1	Site 2	Site 3	Site 4	Site 5	
						Not an ‘average’!
1. Infestations of ecosystem-changing pest plants	G	GC				C
2. Infestations of pest plants other than ecosystem-changers	GC	GC				SC
3. Risk of future invasion by significant pest plants not already present	SC	GC				SC
4. Rainforest invasion	N/A	N/A				N/A
5. Woody thickening (other than by rainforest species)	G	G				G
6. Overgrazing/browsing by feral animals, stray stock or natives	G	G				G
7. Trampling, digging or rooting or trampling by visitors	G	G				G
8. Impacts on wetlands	G	G				G
9. Vehicle impacts	G	G				G
10. Dumping	G	G				G
11. Ground cover	G	G				G
12. Fire damage to fire-sensitive and non fire-dependent ecosystems	G	G				G
13. Fire damage to peat-based ecosystems	N/A	N/A				N/A
14. Age class distribution in fire-adapted ecosystems in conservation....	N/A	N/A				N/A
15. Severe wildfire in fire-adapted wooded ecosystems	N/A	N/A				N/A
16. Severe storm, cyclone or tornado in wooded ecosystems	G	G				G
17. Overtopping, erosion and associated impacts resulting.....	G	G				G
18. Tree/shrub health and dieback	GC	GC				GC
19. Key features for faunal biodiversity in terrestrial ecosystems	G	GC				GC
20. Recruitment of canopy species	G	G				G
Overall Condition Class (refer Table 2.2)						SC

Table 2.2 Overall Condition Class – what the categories mean.				
Good	The Key Value is in good condition and is likely to be maintained for the foreseeable future, provided that current conservation measures are maintained.			
Good with some concern	The Key Value is likely to be essentially maintained over the long-term with minor additional conservation measures to address existing concerns.			
Significant concern	The Key Value is threatened by a number of current and/or potential threats. Significant additional conservation measures are required to preserve the value over the medium to long-term.			
Critical	The Key Value is severely threatened. Urgent additional large-scale conservation measures are required or the value may be lost.			
Trigger for management response:	Maintain effort	Minor attention required	Required prompt decision &/or planned course of action	Requires urgent decision re course of action

Table 2.3 Information, including key issues/threats, relevant to determining the condition of the value

Health Check Indicator	Notes
1. Ecosystem-changing pest plants	1. None 2. Small camphor laurel
2. Pest plants other than ecosystem-changers	1. Occasional cassia, ochna, lantana, passiflora 2. Occasional senna, passiflora, lantana, paspalum, ochna
3. Risk of future invasion by significant pest plants	1. Cats claw creeper nearby 2. Cats claw creeper nearby
4. Rainforest invasion	N/A
5. Woody thickening (other than by rainforest species)	1. None 2. None
6. Over-grazing/over-browsing by feral animals, stray stock or native animals	1. None 2. None
7. Trampling, digging or rooting ... or trampling by visitors	1. None 2. None
8. Impacts on wetlands	1. None 2. None
9. Vehicle impacts	1. None 2. None
10. Dumping	1. None 2. None
11. Ground cover	1. >70% 2. >70%
12. Fire damage to fire-sensitive & non fire-dependent ecosystems	1. None 2. None
13. Fire damage to peat-based ecosystems	N/A
14. Age class distribution in fire-adapted ecosystems...	N/A
15. Severe wildfire in fire-adapted ecosystems	N/A
16. Severe storm, cyclone, tornado	1. None 2. None
17. Overtopping, scouring & assoc. impacts resulting ...	1. None 2. None
18. Tree/shrub health and dieback	1. Myrtle rust infecting Rhodamnia plants, occasional dead plant as a result 2. Myrtle rust infecting Rhodamnia plants, occasional dead plant as a result
19. Key features for faunal biodiversity in terrestrial...	1. No large old trees but epiphytes 2. Lacks old trees as site is regrowth, but otherwise good
20. Recruitment of canopy species	1. Lots of juveniles 2. Lots of juveniles as adult trees nearby to provide source for regrowth

Table 2.4 Information relevant to the determination of the *General Impression* for a Health Check Indicator.

Health Check Indicator	Notes
1. Ecosystem-changing pest plants	Due to infestations of cats claw creeper and small size of key value
2. Pest plants other than ecosystem-changers	Camphor laurel, ochna, Passiflora, paspalum, senna etc.
3. Risk of future invasion by significant pest plants	Many different species present close to key value
4. Rainforest invasion	N/A
5. Woody thickening (other than by rainforest species)	None
6. Over-grazing/over-browsing by feral animals, stray....	None
7. Trampling, digging or rooting.... or trampling by visitors	None
8. Impacts on wetlands	None
9. Vehicle impacts	None
10. Dumping	None
11. Ground cover	>70%
12. Fire damage to fire-sensitive & non fire-dependent ecosystem	No damage but risk from neighbouring eucalypt forest due to fuel build up and ecosystem recovering
13. Fire damage to peat-based ecosystems	N/A
14. Age class distribution in fire-adapted ecosystems...	N/A
15. Severe wildfire in fire-adapted ecosystems	N/A
16. Severe storm, cyclone, tornado	None
17. Overtopping, scouring & assoc. impacts resulting...	None
18. Tree/shrub health and dieback	Myrtle rust significant issue for Rhodamnia plants
19. Key features for faunal biodiversity in terrestrial	Some areas lack old growth trees, also presence of weeds
20. Recruitment of canopy species	Lots of juveniles

Notes relevant to the determination of the Overall Condition Class:

Cats claw creeper not currently being controlled (control should start soon). Surrounding eucalypt forest long unburnt – poses possible threat to rainforest if there's a bushfire.

New or emerging issues noticed (anywhere on the park) while undertaking an inspection

Make a note in Table 2.5 of localised disturbances, biosecurity breaches or issues that require attention to prevent degradation and significant resource input in the future (e.g. a new infestation of an ecosystem-changing weed; illegal dumping; graffiti at a cultural site; pollution event; erosion; tree-fall across a track resulting in new tracks) or pose risk to life and property, or significantly impact on visitor experience (e.g. overcrowding; excessive noise; conflict amongst user groups).

Determine, with your in-line managers, an agreed management response and desired outcome – record these in Table 2.5 (or in a separate project plan if warranted). During future inspections evaluate the effectiveness of the management response in achieving the stated desired outcome – use the ratings below to do so.

Effectiveness of management response	Rating
Desired outcome achieved	1
Heading towards desired outcome	2
Situation static	3
Heading away from desired outcome	4

Table 2.5 Details of localised disturbances/issues requiring attention and effectiveness of management response.

Y = yes; N = no; P = partially

ISSUE 1							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							
ISSUE 2							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							
ISSUE 3							
Date of initial record (d/m/yr):				GPS location (including datum):			
Issue & current condition:							
Agreed management response (AMR):							
Desired outcome:							
				Follow-up inspections			
Date (d/m/yr)							
AMR implemented (Y/N/P)							
Rating:							

Attachment 10: Aquatic Habitat Assessments

Site code: R1	Location: Unnamed tidal channel	-28.16214, 153.46382 (GDA 2020)	Date: 11/12/2023
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Stream order: **4** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Moderate**

State waterway mapping (*Water Act*): **Unmapped**

MNES / MSES wetland or watercourse: **HEV wetland**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: **Tidal** Mean depth: **vary, some subtidal**

Bankfull width: **22m** Bankfull height: **4.5m**

Channel width: **Tidal** Flow level: **Tidal**

Bed stability: **Stable** Bank shape: **Concave**

Bank stability: **Stable** Bank soils: **Clays**

Meso Habitat:

Shallow pool (<50cm): **20%** Deep pool (>50cm): **80%**

Run: - Riffle: -

Dry: -

Micro habitat attributes:

Detritus / leaf litter: **S** Sticks (<2cm diam): **S**

Branches (<15cm diam): **S** Logs (>15cm diam): **S**

Trailing bank veg: **N** Overhanging veg: **N**

Undercut banks: **L** Root overhang: **L**

Macrophytes (emergent): **N** Algae (periphytic): **N**

Macrophytes (submerged): **N** Algae (filamentous): **N**

Macrophytes (floating): **N** Algae (charophytes): **N**

Stream substrate composition:

Clay / silts: **100%** Sands (0.5–2mm): -

Gravel (2–4mm): - Pebble (4–64mm): -

Cobble (64–256mm): - Boulders (>256mm): -

Bedrock: - Substrate anoxia: -

WATER QUALITY

Time sampled: **12:30** Habitat sampled: **Pool**

Temperature: **28.8 °C** Conductivity: **47,905 µS/cm**

Dissolved oxygen: **70.1 %** pH: **6.8**

Dissolved oxygen: **4.6 mg/L** Turbidity: **20.5 NTU**

Water colour: **Opaque** Water surface: **Normal**

DO influences: -

RIPARIAN VEGETATION

Riparian width (DLB): **10m** Riparian width (DRB): **10m**

Riparian height: **13m** Stream cover: **50%**

Dominant layer: **Trees >10m** Bare ground: **50%**

Grass / ground cover: **40%** Shrubs: **10%**

Trees (<10m): **5%** Trees (>10m): **80%**

Key species:

Grey mangrove (*Avicennia marina subsp. australasica*)
occasional long-style stilt mangrove (*Rhizophora stylosa*)

Notes:

Sub-tidal habitat present; banks comprise clays with sections of cobbles, pebbles and boulders; High abundance crab burrows present; regular inundation; some structural habitat; some anthropogenic disturbance

Fisheries value assessment score: Very good

Overall aquatic value: High

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: R2 **Location: Unnamed tidal channel** **-28.16282, 153.46324 (GDA 2020)** **Date: 11/12/2023**

Stream order: **4** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Moderate**

State waterway mapping (*Water Act*): **Unmapped**

MNES / MSES wetland or watercourse: **HEV wetland**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: Tidal	Mean depth: Varying, tidal
Bankfull width: 22.5m	Bankfull height: 3m
Channel width: Varying, tidal	Flow level: Tidal
Bed stability: Stable	Bank shape: Undercut, concave
Bank stability: Moderately stable	Bank soils: Clays

Meso Habitat:

Shallow pool (<50cm): **20%** Deep pool (>50cm): **80%**

Run: -

Riffle: -

Dry: -

Micro habitat attributes:

Detritus / leaf litter: L	Sticks (<2cm diam): L
Branches (<15cm diam): L	Logs (>15cm diam): L
Trailing bank veg: N	Overhanging veg: N
Undercut banks: S	Root overhang: N
Macrophytes (emergent): N	Algae (periphytic): N
Macrophytes (submerged): N	Algae (filamentous): N
Macrophytes (floating): N	Algae (charophytes): N

Stream substrate composition:

Clay / silts: 100%	Sands (0.5–2mm): -
Gravel (2–4mm): -	Pebble (4–64mm): -
Cobble (64–256mm): -	Boulders (>256mm): -
Bedrock: -	Substrate anoxia: -

WATER QUALITY

Time sampled: 10:30	Habitat sampled: Pool
Temperature: 27.1 °C	Conductivity: 46,842 µS/cm
Dissolved oxygen: 49.2 %	pH: 3.2
Dissolved oxygen: 3.3 mg/L	Turbidity: 11.4 NTU
Water colour: Opaque	Water surface: Normal

DO influences: **acid sulphate soils**

RIPARIAN VEGETATION

Riparian width (DLB): 10m	Riparian width (DRB): 15m
Riparian height: 17m	Stream cover: 40%
Dominant layer: Trees >10m	Bare ground: 20%
Grass / ground cover: 80%	Shrubs: 5%
Trees (<10m): 0%	Trees (>10m): 70%

Key species:

Avicennia marina subsp. australasica, *Casuarina glauca*,
Araucaria cunninghamii, *Melaleuca sp.*

Notes:

**Some bank erosion on DLB; some fauna / crab burrows;
some structural habitat; regular inundation**

Fisheries value assessment score: Good

Overall aquatic value: High

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: R3	Location: Unnamed tidal channel	-28.16531, 153.46048 (GDA 2020)	Date: 12/12/2023
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Stream order: **4** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Moderate**

State waterway mapping (*Water Act*): **Unmapped**

MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: **Tidal** Mean depth: **vary, some subtidal**

Bankfull width: **15.5m** Bankfull height: **2.5m**

Channel width: **Tidal** Flow level: **Tidal**

Bed stability: **Stable** Bank shape: **Stepped**

Bank stability: **Stable** Bank soils: **Clays**

Meso Habitat:

Shallow pool (<50cm): **50%** Deep pool (>50cm): **50%**

Run: **-** Riffle: **-**

Dry: **-**

Micro habitat attributes:

Detritus / leaf litter: **S** Sticks (<2cm diam): **L**

Branches (<15cm diam): **L** Logs (>15cm diam): **L**

Trailing bank veg: **N** Overhanging veg: **N**

Undercut banks: **N** Root overhang: **N**

Macrophytes (emergent): **L** Algae (periphytic): **N**

Macrophytes (submerged): **N** Algae (filamentous): **N**

Macrophytes (floating): **N** Algae (charophytes): **N**

Stream substrate composition:

Clay / silts: **100%** Sands (0.5–2mm): **-**

Gravel (2–4mm): **-** Pebble (4–64mm): **-**

Cobble (64–256mm): **-** Boulders (>256mm): **-**

Bedrock: **-** Substrate anoxia: **-**

WATER QUALITY

Time sampled: **10:45** Habitat sampled: **Pool**

Temperature: **26.1 °C** Conductivity: **44,653 µS/cm**

Dissolved oxygen: **27.1 %** pH: **6.6**

Dissolved oxygen: **1.9 mg/L** Turbidity: **10.5 NTU**

Water colour: **Opaque** Water surface: **Normal**

DO influences: **acid sulphate soils**

RIPARIAN VEGETATION

Riparian width (DLB): **10m** Riparian width (DRB): **10m**

Riparian height: **14m** Stream cover: **40%**

Dominant layer: **Trees <10m** Bare ground: **25%**

Grass / ground cover: **50%** Shrubs: **25%**

Trees (<10m): **50%** Trees (>10m): **30%**

Key species:

***Avicennia marina subsp. australasica*, *Casuarina glauca* regrowth, and jointed rush (*Juncus kraussii*)**

Notes:

some fauna / crab burrows; some structural habitat; regular inundation; juvenile schooling mullet observed

Fisheries value assessment score: Good

Overall aquatic value: High

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: R4 **Location: Unnamed tidal channel** **-28.16566, 153.45769 (GDA 2020)** **Date: 12/12/2023**

Stream order: **4** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Moderate**

State waterway mapping (*Water Act*): **Unmapped**

MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: Tidal	Mean depth: Tidal
Bankfull width: 11.4m	Bankfull height: 2.5m
Channel width: Tidal	Flow level: Tidal
Bed stability: Stable	Bank shape: Convex
Bank stability: Stable	Bank soils: Clays

Meso Habitat:

Shallow pool (<50cm): 100%	Deep pool (>50cm): -
Run: -	Riffle: -
Dry: -	

Micro habitat attributes:

Detritus / leaf litter: S	Sticks (<2cm diam): S
Branches (<15cm diam): N	Logs (>15cm diam): N
Trailing bank veg: N	Overhanging veg: N
Undercut banks: N	Root overhang: N
Macrophytes (emergent): N	Algae (periphytic): N
Macrophytes (submerged): N	Algae (filamentous): N
Macrophytes (floating): N	Algae (charophytes): N

Stream substrate composition:

Clay / silts: 100%	Sands (0.5–2mm): -
Gravel (2–4mm): -	Pebble (4–64mm): -
Cobble (64–256mm): -	Boulders (>256mm): -
Bedrock: -	Substrate anoxia: -

WATER QUALITY

Time sampled: 06:40	Habitat sampled: Pool
Temperature: 25.5°C	Conductivity: 40,262 µS/cm
Dissolved oxygen: 5.0 %	pH: 6.4
Dissolved oxygen: 0.3 mg/L	Turbidity: 12.2 NTU
Water colour: Opaque	Water surface: Organic sheen

DO influences: **acid sulphate soils**

RIPARIAN VEGETATION

Riparian width (DLB): 5m	Riparian width (DRB): 5m
Riparian height: 14m	Stream cover: 30%
Dominant layer: Trees <10m	Bare ground: 30%
Grass / ground cover: 50%	Shrubs: 20%
Trees (<10m): 60%	Trees (>10m): 5%

Key species:

***Avicennia marina subsp. Australasica* regrowth, *Casuarina glauca* regrowth**

Notes:

Culvert restricting tidal flow
Low abundance of fauna / crab burrows; some structural habitat; regular inundation; some disturbance

Fisheries value assessment score: Good

Overall aquatic value: Moderate

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: R5	Location: Unnamed tidal channel	-28.16723, 153.45639 (GDA 2020)	Date: 12/12/2023
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Stream order: **4** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Moderate**

State waterway mapping (*Water Act*): **Mapped watercourse**

MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: **3.0m** Mean depth: **0.3m**

Bankfull width: **12m** Bankfull height: **1.5m**

Channel width: **5.0m** Flow level: **no flow**

Bed stability: **mod depositional** Bank shape: **concave**

Bank stability: **mod depositional** Bank soils: **clays**

Meso Habitat:

Shallow pool (<50cm): **90%** Deep pool (>50cm): **-**

Run: **-** Riffle: **-**

Dry: **10%**

Micro habitat attributes:

Detritus / leaf litter: **M** Sticks (<2cm diam): **S**

Branches (<15cm diam): **L** Logs (>15cm diam): **N**

Trailing bank veg: **L** Overhanging veg: **N**

Undercut banks: **N** Root overhang: **N**

Macrophytes (emergent): **L** Algae (periphytic): **S**

Macrophytes (submerged): **N** Algae (filamentous): **N**

Macrophytes (floating): **N** Algae (charophytes): **N**

Stream substrate composition:

Clay / silts: **100%** Sands (0.5–2mm): **--**

Gravel (2–4mm): **--** Pebble (4–64mm): **-**

Cobble (64–256mm): **-** Boulders (>256mm): **-**

Bedrock: **-** Substrate anoxia: **-**

WATER QUALITY

Time sampled: **07:05** Habitat sampled: **Pool**

Temperature: **20.9 °C** Conductivity: **1,007 µS/cm**

Dissolved oxygen: **14.1 %** pH: **6.3**

Dissolved oxygen: **1.3 mg/L** Turbidity: **69.9 NTU**

Water colour: **Opaque** Water surface: **Organic sheen**

DO influences: **acid sulphate soils**

RIPARIAN VEGETATION

Riparian width (DLB): **<5m** Riparian width (DRB): **<5m**

Riparian height: **9m** Stream cover: **40%**

Dominant layer: **Ground cover** Bare ground: **5%**

Grass / ground cover: **90%** Shrubs: **5%**

Trees (<10m): **40%** Trees (>10m): **0%**

Key species:

Camphor laurel, lantana, grey mangrove immediately downstream

Notes:

Small culvert located directly upstream, reducing fish passage – likely extent of tidal influence.

AUSRIVAS Bio-assessment score: Fair

Overall aquatic value: Moderate

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: R6	Location: unnamed watercourse	-28.16976 153.45593 (GDA 2020)	Date: 11/12/2023
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Stream order: **4** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Moderate**

State waterway mapping (*Water Act*): **Mapped watercourse**

MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: 4.0m	Mean depth: 0.9m
Bankfull width: 35m	Bankfull height: 4.0m
Channel width: 4.0m	Flow level: No flow
Bed stability: Stable	Bank shape: Undercut, convex
Bank stability: Stable	Bank soils: Clays

Meso Habitat:

Shallow pool (<50cm): -	Deep pool (>50cm): 100%
Run: -	Riffle: -
Dry: -	

Micro habitat attributes:

Detritus / leaf litter: E	Sticks (<2cm diam): E
Branches (<15cm diam): M	Logs (>15cm diam): M
Trailing bank veg: S	Overhanging veg: N
Undercut banks: S	Root overhang: L
Macrophytes (emergent): L	Algae (periphytic): S
Macrophytes (submerged): L	Algae (filamentous): S
Macrophytes (floating): L	Algae (charophytes): N

Stream substrate composition:

Clay / silts: 10%	Sands (0.5–2mm): 25%
Gravel (2–4mm): 40%	Pebble (4–64mm): 20%
Cobble (64–256mm): 5%	Boulders (>256mm): -
Bedrock: -	Substrate anoxia: Anoxic

WATER QUALITY

Time sampled: 15:45	Habitat sampled: Pool
Temperature: 22.7 °C	Conductivity: 286 µS/cm
Dissolved oxygen: 4.1 %	pH: 6.2
Dissolved oxygen: 0.3 mg/L	Turbidity: NTU
Water colour: Tanin	Water surface: scum, o sheen
DO influences: shading, high organic matter	

RIPARIAN VEGETATION

Riparian width (DLB): 10m	Riparian width (DRB): 15m
Riparian height: 22m	Stream cover: 90%
Dominant layer: Trees >10m	Bare ground: 40%
Grass / ground cover: 60%	Shrubs: 5%
Trees (<10m): 80%	Trees (>10m): 5%

Key species:

Hoop pine, camphor laurel, Palm sp. Rainforest spp.

Notes:

Semi-permanent aquatic refugia

AUSRIVAS Bio-assessment score: Good

Overall aquatic value: Moderate

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: R7	Location: unnamed watercourse	-28.17504, 153.45210 (GDA 2020)	Date: 11/12/2023
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Stream order: **3** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Low**

State waterway mapping (*Water Act*): **Mapped watercourse**

MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: **3.5m** Mean depth: **0.2m**

Bankfull width: **16.0m** Bankfull height: **2.0m**

Channel width: **3.5m** Flow level: **No flow**

Bed stability: **Stable** Bank shape: **Convex**

Bank stability: **Stable** Bank soils: **Clays / silts**

Meso Habitat:

Shallow pool (<50cm): **30%** Deep pool (>50cm): **-**

Run: **-** Riffle: **-**

Dry: **70%**

Micro habitat attributes:

Detritus / leaf litter: **E** Sticks (<2cm diam): **M**

Branches (<15cm diam): **S** Logs (>15cm diam): **S**

Trailing bank veg: **L** Overhanging veg: **N**

Undercut banks: **L** Root overhang: **L**

Macrophytes (emergent): **L** Algae (periphytic): **M**

Macrophytes (submerged): **N** Algae (filamentous): **N**

Macrophytes (floating): **N** Algae (charophytes): **N**

Stream substrate composition:

Clay / silts: **10%** Sands (0.5–2mm): **25%**

Gravel (2–4mm): **40%** Pebble (4–64mm): **20%**

Cobble (64–256mm): **5%** Boulders (>256mm): **-**

Bedrock: **-** Substrate anoxia: **some anoxia**

WATER QUALITY

Time sampled: Habitat sampled:

Temperature: **°C** Conductivity: **µS/cm**

Dissolved oxygen: **3.0 %** pH: **5.8**

Dissolved oxygen: **0.2 mg/L** Turbidity: **NTU**

Water colour: **Tanin** Water surface: **scum, o sheen**

DO influences: **Shading, high organic matter**

RIPARIAN VEGETATION

Riparian width (DLB): **10m** Riparian width (DRB): **10m**

Riparian height: **20m** Stream cover: **80%**

Dominant layer: **Trees >10m** Bare ground: **20%**

Grass / ground cover: **60%** Shrubs: **20%**

Trees (<10m): **5%** Trees (>10m): **80%**

Key species:

Camphor laurel, palm sp. Lomandra, taro

Notes:

AUSRIVAS Bio-assessment score: Good

Overall aquatic value: Moderate

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: R8	Location: unnamed watercourse	-28.16817, 153.45628 (GDA 2020)	Date: 11/12/2023
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Stream order: **4** Assessment reach: **100m**

Fish passage value (*Fisheries Act*): **Moderate**

State waterway mapping (*Water Act*): **Mapped watercourse**

MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: **0.5m** Mean depth: **0.2m**

Bankfull width: **? floodplain** Bankfull height: **? floodplain**

Channel width: **?** Flow level: **No flow**

Bed stability: **Stable** Bank shape: **Concave**

Bank stability: **Stable** Bank soils: **Clays / silts**

Meso Habitat:

Shallow pool (<50cm): **100%** Deep pool (>50cm): **-**

Run: **-** Riffle: **-**

Dry: **-**

Micro habitat attributes:

Detritus / leaf litter: **E** Sticks (<2cm diam): **N**

Branches (<15cm diam): **N** Logs (>15cm diam): **N**

Trailing bank veg: **E** Overhanging veg: **N**

Undercut banks: **N** Root overhang: **N**

Macrophytes (emergent): **E** Algae (periphytic): **N**

Macrophytes (submerged): **N** Algae (filamentous): **N**

Macrophytes (floating): **N** Algae (charophytes): **N**

Stream substrate composition:

Clay / silts: **20%** Sands (0.5–2mm): **30%**

Gravel (2–4mm): **40%** Pebble (4–64mm): **10%**

Cobble (64–256mm): **-** Boulders (>256mm): **-**

Bedrock: **-** Substrate anoxia: **Slightly anoxic**

WATER QUALITY

Time sampled: **07:50** Habitat sampled: **shallow pool**

Temperature: **21.6 °C** Conductivity: **309 µS/cm**

Dissolved oxygen: **20.3 %** pH: **3.5**

Dissolved oxygen: **mg/L** Turbidity: **98.3 NTU**

Water colour: **Clear** Water surface: **Normal**

DO influences: **acid sulphate soils**

RIPARIAN VEGETATION

Riparian width (DLB): **0m** Riparian width (DRB): **0m**

Riparian height: **1.5m** Stream cover: **-**

Dominant layer: **Grasses** Bare ground: **-**

Grass / ground cover: **100%** Shrubs: **-**

Trees (<10m): **-** Trees (>10m): **-**

Key species:

Grasses, persicaria

Notes:

AUSRIVAS rating higher than actual conditions, channel almost completely absent due to removal of riparian vegetation, cattle

Turbidity likely lower – disturbed when sampling

AUSRIVAS Bio-assessment score: Fair

Overall aquatic value: Moderate

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: L1	Location: on drainage feature	-28.16783, 153.46142 (GDA 2020)	Date: 11/12/2023
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Stream order: - Assessment reach: **70m**

Fish passage value (*Fisheries Act*): -

State waterway mapping (*Water Act*): -

MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: Mean depth:

Bankfull width: Bankfull height:

Channel width: Flow level:

Bed stability: Bank shape:

Bank stability: Bank soils:

Meso Habitat:

Shallow pool (<50cm): - Deep pool (>50cm): **100%**

Run: - Riffle: -

Dry: -

Micro habitat attributes:

Detritus / leaf litter: ? Sticks (<2cm diam): ?

Branches (<15cm diam): ? Logs (>15cm diam): ?

Trailing bank veg: **N** Overhanging veg: **N**

Undercut banks: **N** Root overhang: **N**

Macrophytes (emergent): **M** Algae (periphytic): **L**

Macrophytes (submerged): **S** Algae (filamentous): **L**

Macrophytes (floating): **M** Algae (charophytes): **N**

Stream substrate composition:

Clay / silts: **100%** Sands (0.5–2mm): -

Gravel (2–4mm): - Pebble (4–64mm): -

Cobble (64–256mm): - Boulders (>256mm): -

Bedrock: - Substrate anoxia:

WATER QUALITY

Time sampled: **13:05** Habitat sampled: **pool**

Temperature: **31.8 °C** Conductivity: **128 µS/cm**

Dissolved oxygen: **107.2 %** pH: **6.8**

Dissolved oxygen: **7.9 mg/L** Turbidity: **4.4 NTU**

Water colour: **Clear** Water surface: **Normal**

DO influences: **aquatic macrophytes**

RIPARIAN VEGETATION

Riparian width (DLB): Riparian width (DRB):

Riparian height: Stream cover:

Dominant layer: Bare ground:

Grass / ground cover: Shrubs:

Trees (<10m): Trees (>10m):

Key species:

Notes:

AUSRIVAS Bio-assessment score: n/a

Overall aquatic value: n/a

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream

Downstream Left Bank (DLB)



Downstream

Downstream Right Bank (DRB)

Site code: D1	Location: drainage feature	-28.16682, 153.45954 (GDA 2020)	Date: 12/12/2023
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Stream order: **1** Assessment reach: **100m**
 Fish passage value (*Fisheries Act*): -
 State waterway mapping (*Water Act*): **Mapped drainage feature**
 MNES / MSES wetland or watercourse: **No**

PHYSICAL ATTRIBUTES IN ASSESSMENT REACH

Mean wetted width: 0m	Mean depth: 0m
Bankfull width: 5 to 10m	Bankfull height: 1.5m
Channel width: 0.5m	Flow level: Dry
Bed stability: Stable	Bank shape: Convex
Bank stability: Stable	Bank soils: Clays

Meso Habitat:

Shallow pool (<50cm): -	Deep pool (>50cm): -
Run: -	Riffle: -
Dry: 100%	

Micro habitat attributes:

Detritus / leaf litter: N	Sticks (<2cm diam): N
Branches (<15cm diam): N	Logs (>15cm diam): N
Trailing bank veg: E	Overhanging veg: N
Undercut banks: N	Root overhang: N
Macrophytes (emergent): L	Algae (periphytic): N
Macrophytes (submerged): N	Algae (filamentous): N
Macrophytes (floating): N	Algae (charophytes): N

Stream substrate composition:

Clay / silts:	Sands (0.5–2mm):
Gravel (2–4mm):	Pebble (4–64mm):
Cobble (64–256mm):	Boulders (>256mm):
Bedrock:	Substrate anoxia:

WATER QUALITY

Time sampled: DRY	Habitat sampled:
Temperature: °C	Conductivity: µS/cm
Dissolved oxygen: %	pH:
Dissolved oxygen: mg/L	Turbidity: NTU
Water colour:	Water surface:
DO influences:	

RIPARIAN VEGETATION

Riparian width (DLB): 0m	Riparian width (DRB): 2m
Riparian height: 12m	Stream cover: 0
Dominant layer: Grasses	Bare ground: N
Grass / ground cover: 100%	Shrubs: N
Trees (<10m): N	Trees (>10m): 5%

Key species:
Camphor laurel, grasses

Notes:

AUSRIVAS Bio-assessment score: Fair

Overall aquatic value: Low

Key: None (N), Little 1-10% (L), Some 10-50% (S), Moderate 50-75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: D2		Location: drainage feature		-28.16871, 153.45473 (GDA 2020)	Date: 12/12/2023
Stream order: 1		Assessment reach: 100m			
Fish passage value (Fisheries Act): -					
State waterway mapping (Water Act): Unmapped					
MNES / MSES wetland or watercourse: No					
Physical attributes in assessment reach					
Mean wetted width: 0m		Mean depth: 0m			
Bankfull width: 4.0m		Bankfull height: 1.0m			
Channel width: 1.5m		Flow level: Dry			
Bed stability: Stable		Bank shape: Convex, artificial			
Bank stability: Stable		Bank soils: Clays			
Meso Habitat:					
Shallow pool (<50cm): -		Deep pool (>50cm): -			
Run: -		Riffle: -			
Dry: 100%					
Micro habitat attributes:					
Detritus / leaf litter: L		Sticks (<2cm diam): N			
Branches (<15cm diam): N		Logs (>15cm diam): N			
Trailing bank veg: E		Overhanging veg: N			
Undercut banks: N		Root overhang: N			
Macrophytes (emergent): L		Algae (periphytic): N			
Macrophytes (submerged): N		Algae (filamentous): N			
Macrophytes (floating): N		Algae (charophytes): N			
Stream substrate composition:					
Clay / silts: 100%		Sands (0.5–2mm): -			
Gravel (2-4mm): -		Pebble (4-64mm): -			
Cobble (64-256mm): -		Boulders (>256mm): -			
Bedrock: -		Substrate anoxia: -			
Water quality					
Time sampled: DRY		Habitat sampled:			
Temperature: °C		Conductivity: µS/cm			
Dissolved oxygen: %		pH:			
Dissolved oxygen: mg/L		Turbidity: NTU			
Water colour:		Water surface:			
DO influences:					
Riparian vegetation					
Riparian width (DLB): 1m		Riparian width (DRB): 0m			
Riparian height: 14m		Stream cover: 0m			
Dominant layer: Grasses		Bare ground: N			
Grass / ground cover:		Shrubs: N			
Trees (<10m): N		Trees (>10m):5%			
Key species: Eucalyptus robusta, grasses					
Notes: Artificial drainage canal					
AUSRIVAS Bio-assessment score: Fair					
Overall aquatic value: Low					



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Key: None (N). Little 1-10% (L). Some 10-50% (S). Moderate 50-75% (M). Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: D3		Location: drainage feature		-28.16602, 153.45455 (GDA 2020)		Date: 12/12/2023	
Stream order: 1		Assessment reach: 100m					
Fish passage value (Fisheries Act): -							
State waterway mapping (Water Act): Unmapped							
MNES / MSES wetland or watercourse: No							
Physical attributes in assessment reach							
Mean wetted width: 1.0m		Mean depth: 0.2m					
Bankfull width: 4.0m		Bankfull height: 1.2m					
Channel width: 1.5m		Flow level: No flow					
Bed stability: Stable		Bank shape: Convex, artificial					
Bank stability: Stable		Bank soils: Clays					
Meso Habitat:							
Shallow pool (<50cm): 90%		Deep pool (>50cm): -					
Run: -		Riffle: -					
Dry: 10%							
Micro habitat attributes:							
Detritus / leaf litter: L		Sticks (<2cm diam): L					
Branches (<15cm diam): N		Logs (>15cm diam): N					
Trailing bank veg: N		Overhanging veg: N					
Undercut banks: N		Root overhang: N					
Macrophytes (emergent): E		Algae (periphytic): S					
Macrophytes (submerged): N		Algae (filamentous): N					
Macrophytes (floating): N		Algae (charophytes): N					
Stream substrate composition:							
Clay / silts: 100%		Sands (0.5–2mm): -					
Gravel (2-4mm): -		Pebble (4-64mm): -					
Cobble (64-256mm): -		Boulders (>256mm): -					
Bedrock: -		Substrate anoxia: slightly anoxic					
Water quality							
Time sampled: 08:20		Habitat sampled: Shallow pool					
Temperature: 24.2 °C		Conductivity: 30,776µS/cm					
Dissolved oxygen: 14.0 %		pH: 5.9					
Dissolved oxygen: mg/L		Turbidity: 97.2 NTU					
Water colour: Opaque		Water surface: Organic sheen					
DO influences: acid sulphate soils							
Riparian vegetation							
Riparian width (DLB): 1m		Riparian width (DRB): 1m					
Riparian height: 0.5m		Stream cover: 5%					
Dominant layer: Shrubs		Bare ground: N					
Grass / ground cover: 50%		Shrubs: 50%					
Trees (<10m): 5%		Trees (>10m): N					
Key species:							
Jointed rush (Juncus kraussii)							
Notes:							
Artificial drainage canal, tidally influenced, poorly flushed							
Likely iron floc – Acid Sulphate Soils							
Fisheries value assessment score: Poor							
Overall aquatic value: Low							



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Key: None (N), Little 1–10% (L), Some 10–50% (S), Moderate 50–75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)

Site code: D4		Location: drainage feature		-28.16783, 153.46141 (GDA 2020)		Date: 12/12/2023					
Stream order: 2		Assessment reach: 100m									
Fish passage value (Fisheries Act): -											
State waterway mapping (Water Act): Mapped drainage feature											
MNES / MSES wetland or watercourse: No											
PHYSICAL ATTRIBUTES IN ASSESSMENT REACH											
Mean wetted width: 0m		Mean depth: 0m									
Bankfull width: 6m		Bankfull height: 1.5m									
Channel width: 0.8m		Flow level: Dry									
Bed stability: Stable		Bank shape: Convex									
Bank stability: Stable		Bank soils: Silts / clays									
Meso Habitat:											
Shallow pool (<50cm): -		Deep pool (>50cm): -									
Run: -		Riffle: -									
Dry: 100%											
Micro habitat attributes:											
Detritus / leaf litter: S		Sticks (<2cm diam): S									
Branches (<15cm diam): N		Logs (>15cm diam): N									
Trailing bank veg: M		Overhanging veg: N									
Undercut banks: N		Root overhang: L									
Macrophytes (emergent): L		Algae (periphytic): N									
Macrophytes (submerged): N		Algae (filamentous): N									
Macrophytes (floating): N		Algae (charophytes): N									
Stream substrate composition:											
Clay / silts: 100%		Sands (0.5–2mm): -									
Gravel (2-4mm): -		Pebble (4-64mm): -									
Cobble (64-256mm): -		Boulders (>256mm): -									
Bedrock: -		Substrate anoxia: -									
WATER QUALITY											
Time sampled: DRY		Habitat sampled:									
Temperature: °C		Conductivity: µS/cm									
Dissolved oxygen: %		pH:									
Dissolved oxygen: mg/L		Turbidity: NTU									
Water colour:		Water surface:									
DO influences:											
RIPARIAN VEGETATION											
Riparian width (DLB): 2m		Riparian width (DRB): 15m									
Riparian height: 18m		Stream cover: 60%									
Dominant layer: Trees >10m		Bare ground: L									
Grass / ground cover: E		Shrubs: S									
Trees (<10m): S		Trees (>10m): M									
Key species:											
Sandpaper fig, Stringybark, Ironbark, Lantana											
Notes:											
Some crayfish bioturbation in banks											
AUSRIVAS Bio-assessment score: Fair											
Overall aquatic value: Low											
				Downstream Right Bank (DRB)							

Key: None (N), Little 1-10% (L), Some 10-50% (S), Moderate 50-75% (M), Extensive >75% (E)



Upstream



Downstream Left Bank (DLB)



Downstream



Downstream Right Bank (DRB)