



1. Application details

1.1. Permit application details

Permit application No.: 7533/2
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: Commissioner of Main Roads
Application received date: 15 August 2019

1.3. Property details

Properties:
Brand Highway road reserve (PIN 1358753), Hill River
Brand Highway road reserve (PIN 1358743), Badgingarra
Lot 4180 on Plan 215549, Badgingarra
Brand Highway road reserve (PIN 1358737), Badgingarra
Brand Highway road reserve (PIN 11674695), Badgingarra
Brand Highway road reserve (PIN 11674696), Badgingarra
Lot 4255 on Plan 209084, Badgingarra
Brand Highway road reserve (PIN 11579146), Cooljarloo
Brand Highway road reserve (PIN 11674269), Cooljarloo
Brand Highway road reserve (PIN 11674270), Cataby
Brand Highway road reserve (PIN 1226149), Cataby
Brand Highway road reserve (PIN 1226168), Yathroo
Brand Highway road reserve (PIN 1226171), Regans Ford
Brand Highway road reserve (PIN 1226192), Red Gully
Brand Highway road reserve (PIN 1188398), Orange Springs
Lot 13800 on Plan 206476, Red Gully
Lot 14246 on Plan 27746, Red Gully
Brand Highway road reserve (PIN 11674225), Granville
Local Government Authority: Shire of Gingin
Shire of Dandaragan

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
37.8		Mechanical Removal	Road construction or upgrades

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 20 August 2019
Reasons for Decision: On 17 May 2019, Clearing Permit CPS 7533/1 was granted to clear up to 37.8 hectares of native vegetation for the purpose of road construction or upgrades. An appeal was lodged against the grant of the permit.

This clearing permit amendment gives effect to the determination of the Minister for Environment (Minister) to partly allow appeal C031 of 2019. The Minister has requested the Department of Water and Environmental Regulation (DWER) amend Clearing Permit CPS 7533/1 to require the permit holder to:

- undertake an appropriately timed survey for *Thelymitra pulcherrima* within Areas 10, 11, 12 and 13 on Plans 7553/2j-q of the clearing permit, as well as any other portion or portions of the application area that is or are likely to comprise suitable habitat for the species; and
- if any individual are identified from these surveys, such individuals shall not be cleared or disturbed unless written approval is first obtained from DWER.

Conditions 9 and 10 have been added to the permit. The precise wording of the conditions was determined by the DWER Delegated Officer.

Given the above, the Delegated Officer decided to grant a clearing permit subject to added flora management and flora management plan conditions and updated definitions.

2. Application area

The application is to clear up to 37.8 hectares of native vegetation along Brand Highway between Straight Line Kilometre (SLK) 34.83 (near Dewar Road) and 163.4 (near Boothendarra Road) in the Shires of Gingin and Dandaragan. The proposed clearing is for the construction of eight passing lanes and the widening of six sections of the highway. The application area is made up of 13 different areas (Table 1 and Figure 1) which together measure approximately 170 hectares. It is noted that Area 10 and Area 11 overlap with the application area for Area 11 being approximately seven metres wider. The works are proposed to be

undertaken in stages over a period of 8 years, however, some of the works are yet to be funded and therefore scheduling may change.

Table 1. Application area description

Area ID	Plan	Project type	SLK start	SLK finish	Shire	Clearing size (ha)
Area 1	7533/1a	Northbound passing lane	34.83	36	Gingin	1.3
Area 2	7533/1b	Widening	65	68.63	Gingin	2.2
Area 3	7533/1c	Southbound passing lane	68.63	71.02	Gingin	2.7
Area 4	7533/1d	Widening	71.02	74	Gingin	1.8
Area 5	7533/1e	Widening	77.3	79.84	Dandaragan	1.6
Area 6	7533/1f	Northbound passing lane	79.84	81.71	Dandaragan	2.1
Area 7	7533/1g	Widening	81.71	86	Dandaragan	2.6
Area 8	7533/1h	Southbound passing lane	111.08	112.9	Dandaragan	2.2
Area 9	7533/1i	Northbound passing lane	114.1	116.1	Dandaragan	2.2
Area 10	7533/1j to 7533/1l	Widening	120	136	Dandaragan	6
Area 11	7533/1m	Southbound passing lane	126.2	128.38	Dandaragan	2.5
Area 12	7533/1n to 7533/1p	Widening	139	152	Dandaragan	4.6
Area 13	7533/1q	Northbound passing lane	160.1	163.6	Dandaragan	6
		Southbound passing lane	160.1	163.4	Dandaragan	
TOTAL						37.8

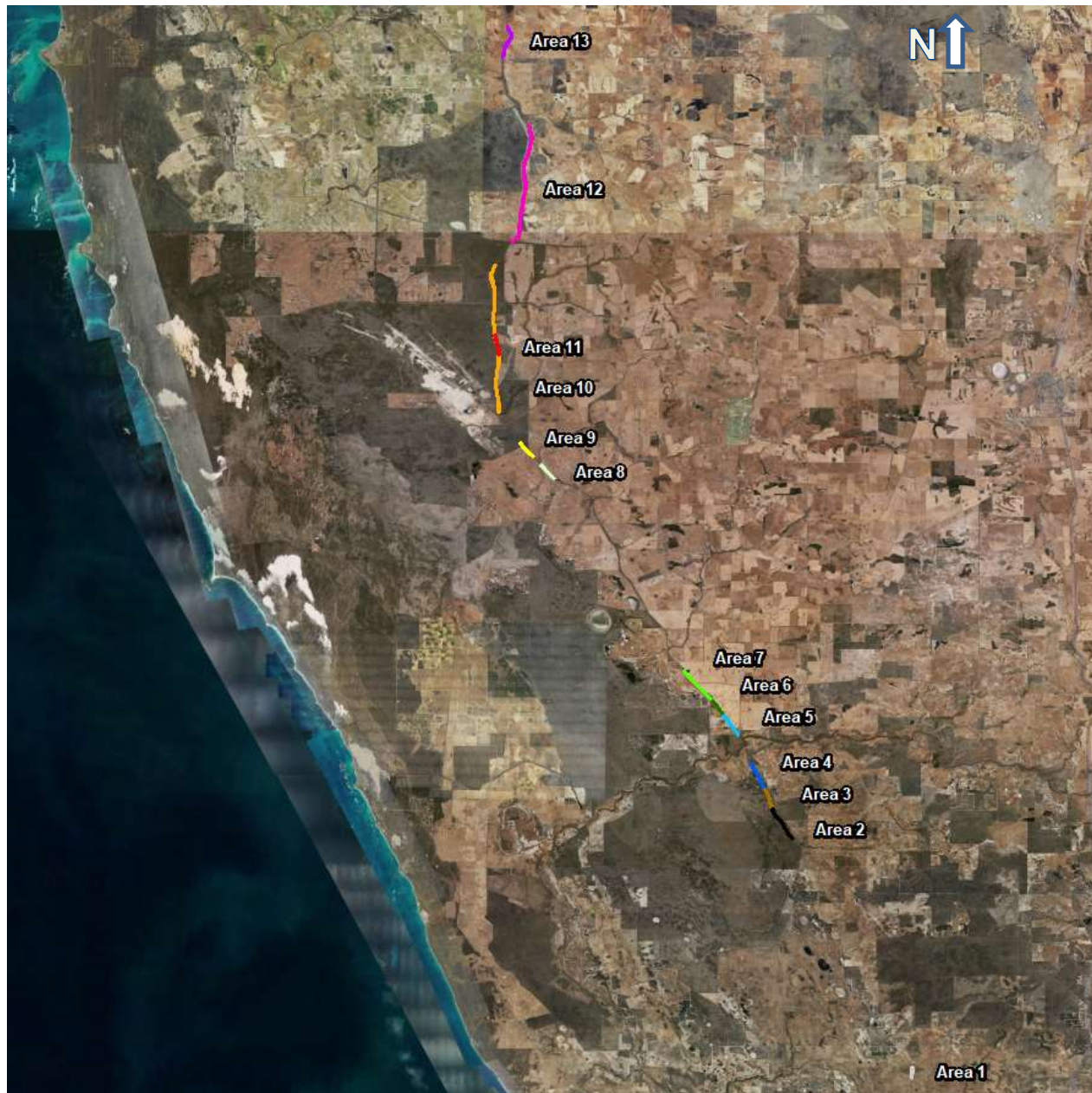


Figure 1. Application area map

3. Vegetation description and surveys undertaken

Beard vegetation associations

The application area intersects eight mapped Beard vegetation associations (4, 7, 949, 999, 1015, 1030, 1031 and 1035) across two Interim Biogeographic Regionalisation for Australia (IBRA) bioregions (Swan Coastal Plain and Geraldton Sandplains) (Table 2).

Table 2. Beard vegetation associations intersected by the application area

Area ID	Beard vegetation association	Beard vegetation association description (Shepherd et al., 2001)	Bioregion
Area 1	999	Medium woodland; marri	Swan Coastal Plain
Area 2	949 1015	Low woodland; banksia Mosaic: Mixed scrub-heath / Shrublands; dryandra thicket	Swan Coastal Plain
Area 3	949	Low woodland; banksia	Swan Coastal Plain
Area 4	4 949	Medium woodland; marri & wandoo Low woodland; banksia	Swan Coastal Plain
Area 5	1030 1035	Low woodland; <i>Banksia attenuata</i> & <i>B. menziesii</i> Mosaic: Medium open woodland; marri / Shrublands; dryandra heath	Swan Coastal Plain
Area 6	1030 1035	Low woodland; <i>Banksia attenuata</i> & <i>B. menziesii</i> Mosaic: Medium open woodland; marri / Shrublands; dryandra heath	Swan Coastal Plain
Area 7	1030 1031	Low woodland; <i>Banksia attenuata</i> & <i>B. menziesii</i> Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath	Swan Coastal Plain
Area 8	1030	Low woodland; <i>Banksia attenuata</i> & <i>B. menziesii</i>	Swan Coastal Plain
Area 9	1030 1031	Low woodland; <i>Banksia attenuata</i> & <i>B. menziesii</i> Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath	Swan Coastal Plain
Area 10	7 1030 1031	Medium woodland; York gum (<i>Eucalyptus loxophleba</i>) & wandoo Low woodland; <i>Banksia attenuata</i> & <i>B. menziesii</i> Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath	Geraldton Sandplains
Area 11	1031	Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath	Geraldton Sandplains
Area 12	1031	Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath	Geraldton Sandplains
Area 13	1031	Mosaic: Shrublands; hakea scrub-heath / Shrublands; dryandra heath	Geraldton Sandplains

Surveys undertaken

The applicant commissioned a range of terrestrial flora, vegetation and fauna surveys to support the application. A summary of these surveys (i.e. Surveys 1 to 6 and 9) is provided in Table 3. The applicant also previously commissioned two surveys for adjacent areas for the Brand Highway SLK 51.2 to 77.5 widening project approved under clearing permit CPS 818/12 on 20 December 2016. The details of these surveys are also included in Table 3 (i.e. Surveys 7 & 8). It should be noted that the survey locations listed are approximate only and a wider footprint than the application area may have been utilised. Therefore the results of the surveys may relate to a larger area than the application area.

Table 3. Surveys commissioned for the application.

Survey	Title	Survey location	Survey dates	Field work	Comment
Survey 1	Main Roads Western Australia Brand Highway Passing Lanes Biological Assessment, May 2016 (GHD, 2016a)	Was commissioned for Areas 1, 3, 6, 8, 9, 11 and 13 (i.e. the eight passing lanes). Buffer areas were also surveyed meaning the northern half of Area 2, the southern 500m of Area 4, the northern 500m of Area 5, the southern 400m of Area 7 and 1.6 kilometres of Area 10 were also included.	<u>Flora & Vegetation</u> 15-19 September 2014 (all but Area 1) 30 March 2015 (Area 1 only) 7-13 September 2015 (all but Area 1) 23 January 2016 (Area 1 only) <u>Fauna</u> 15-19 September 2014 (all but Area 1) 30 March 2015 (Area 1 only) 23 January 2016 (Area 1 only)	A total 38 quadrats (10x10m) were surveyed. Breakdown of quadrats by area is as follows: <ul style="list-style-type: none"> • Area 1 = 0 • Area 2 = 2 • Area 3 = 2 • Area 4 = 1 • Area 5 = 1 • Area 6 = 3 • Area 7 = 1 • Area 8 = 3 • Area 9 = 3 • Area 10 = 2 • Area 11 = 3 • Area 13 = 9 At least one transect on either side of the road was walked across the entire length of the survey area except for the survey area for Area 1.	665 flora taxa recorded (562 native). No threatened flora species recorded. 13 priority flora species recorded. 56 fauna species recorded (53 native). Carnaby's cockatoo recorded. Chuditch and western brush wallaby considered likely to occur. 195 potential habitat trees for Carnaby's cockatoo recorded but none had suitably sized breeding hollows.
Survey 2	Main Roads Western Australia Brand Highway, Western Australia – Various Sections: SLK 74 to 150 Biological Survey, April 2016 (GHD, 2016b)	Majority of Areas 5, 10 and 12	<u>Flora & Vegetation</u> 29 September to 2 October 2015 <u>Fauna</u> 29 September to 2 October 2015	A total of 25 quadrats (10x10m) were surveyed. Breakdown of quadrats by area is as follows: <ul style="list-style-type: none"> • Area 5 = 5 • Area 10 = 12 • Area 12 = 8 	440 flora taxa recorded (375 native). No threatened flora species recorded. 13 priority flora species recorded. 45 fauna species recorded. Carnaby's cockatoo recorded. Chuditch, woma, black-striped snake and western brush wallaby considered likely to occur. Four potential habitat trees for Carnaby's cockatoo recorded but none contained hollows.

Survey	Title	Survey location	Survey dates	Field work	Comment
Survey 3	Brand Highway, Regans Ford Biological Survey, September 2016 (Astron, 2016)	Majority of Areas 4 and 7 and the southern half of Area 2	<u>Flora & Vegetation</u> 18-23 September 2016 <u>Fauna</u> 18-23 September 2016	A total of 19 quadrats (10x10m) were surveyed. Breakdown of quadrats by area is as follows: <ul style="list-style-type: none"> • Area 2 = 2 • Area 4 = 9 • Area 7 = 8 	234 flora taxa recorded. A further 19 records were made that could not be identified to species level of which some are likely to represent additional taxa. Approximately 82 per cent of the flora recorded were native taxa. No threatened flora species recorded. One priority flora species recorded. 32 fauna species recorded. Carnaby's cockatoo recorded. Chuditch considered likely to occur. Five potential habitat trees for Carnaby's cockatoo recorded with four of these containing suitable nest hollows but none showed signs of use.
Survey 4	Assessment Report and Vegetation Management Plan Brand Highway Widening and Passing Lane Package 2016/2017, February 2017 (MRWA, 2017a)	Southern 800m of Area 10, central 1.1 kilometre portion of Area 10 and 1.9 kilometre portion of Area 12	15 July 2016	Site visit to extrapolate vegetation type, vegetation condition and fauna habitat mapping from Surveys 1 and 2 for unsurveyed portions of Areas 10 and 12. Targeted flora search also undertaken.	No threatened flora species recorded. Three priority flora species recorded. Suitable Carnaby's cockatoo foraging habitat present. No potential habitat trees for Carnaby's cockatoo recorded.
Survey 5	Brand Highway Passing Lanes Survey for Listed Threatened and Priority Flora Taxa, December 2017 (Woodman Environmental, 2017)	All (Areas 1 to 13)	6-10 November 2017	Targeted survey for conservation significant flora taxa. Both sides of the road searched on foot for the entire length of the application area.	No threatened flora species recorded. 22 priority flora species recorded.
Survey 6	Main Roads Western Australia Brand Highway Passing Lanes Banksia Woodlands TEC Assessment, April 2018 (Ecologia, 2018a)	All (Areas 1 to 13)	7-11 November 2017	A total of 31 quadrats (10x10m) were surveyed for the presence of the Banksia Woodlands of the Swan Coastal Plain EPBC Act listed threatened ecological community (TEC). Note: Data compiled for the 82 quadrats established by Surveys 1 to 3 was also assessed for the presence of the TEC.	40 of the total 113 quadrats were considered to be representative of the Banksia Woodlands of the Swan Coastal Plain TEC. The same quadrats were also considered to broadly correspond to the priority ecological community (PEC) Swan Coastal Plain <i>Banksia attenuata</i> – <i>Banksia menziesii</i> woodlands floristic community type (FCT) 23b listed by the Department of Biodiversity, Conservation and Attractions (DBCA) as Priority 3 (P3).

Survey	Title	Survey location	Survey dates	Field work	Comment
Survey 7	Main Roads WA Midwest Region Brand Highway Upgrade SLK 51.3 to SLK 65 Biological Survey, March 2016 (GHD, 2016c)	An approximately 14 kilometre section of Brand Highway extending south from the southern end of Area 2 (not within current application area).	<u>Flora & Vegetation</u> 8-10 September 2015 <u>Fauna</u> 19 January 2016	A total of 6 quadrats (10x10m) were surveyed. Majority of survey area traversed on foot and opportunistic observations made.	188 flora taxa recorded (156 native). No threatened or priority flora species recorded. Carnaby's cockatoo recorded. Chuditch, black-striped snake, western brush wallaby and water rat may occur within/utilise the survey area. 22 potential habitat trees for Carnaby's cockatoo recorded but none had suitably sized breeding hollows.
Survey 8	Main Roads Western Australia Brand Highway Realignment: Regan's Ford Biological Survey, May 2016 (GHD, 2016d)	Section between Areas 4 and 5 (not within current application area)	<u>Flora & Vegetation</u> 21-23 September 2015 <u>Fauna</u> 21-23 September 2015	A total of 20 quadrats (10x10m) were surveyed. Majority of survey area traversed on foot and opportunistic observations made.	327 flora taxa recorded (267 native). No threatened flora species recorded. Two priority flora species recorded. A third priority flora species may also have been recorded (flowering material required for identification was not able to be collected during the survey). Carnaby's cockatoo recorded. Chuditch and western brush wallaby considered likely to occur. Two observations made of nesting Carnaby's cockatoos. Chicks were heard at one of the nesting trees and nesting behaviour observed at the other. 730 potential habitat trees for Carnaby's cockatoo recorded with 31 containing suitably sized breeding hollows. Note: The area approved to clear under CPS 818/12 did not include the two nesting trees.
Survey 9	Main Roads Australia Brand Highway Widening and Passing Lanes SLK 120 to 136 and SLK 139 to 152 Regional Targeted Flora Survey, December 2018 (Ecologia, 2018b)	Areas of road reserve and conservation estate near Area 12 and the northern 3.5 kilometre section of Area 10 (i.e. areas outside of the application area)	12-16 November 2018 Additional survey for <i>Comesperma rhadinocarpum</i> was also undertaken 17-18 December 2018	Targeted grid searching on foot of potentially suitable habitat at approximately 10 to 20 metre intervals for the following priority flora species: <ul style="list-style-type: none"> • <i>Catacolea enodis</i> (P2); • <i>Desmocladius microcarpus</i> (P2); • <i>Hypocalymma serrulatum</i> (P2); • <i>Comesperma rhadinocarpum</i> (P3); • <i>Jacksonia anthoclada</i> (P3); • <i>Tetrateca angulata</i> (P3); and • <i>Grevillea rudis</i> (P4). 	All seven targeted priority flora species recorded. Numbers recorded were as follows: <ul style="list-style-type: none"> • <i>C. enodis</i> – 109 plants from 53 point locations; • <i>D. microcarpus</i> – 31 plants from 11 point locations; • <i>H. serrulatum</i> – 700 plants from 70 point locations; • <i>C. rhadinocarpum</i> – 199 plants from 107 point locations; • <i>J. anthoclada</i> – 908 plants from 154 point locations; • <i>T. angulata</i> – 188 plants from 63 point locations; and • <i>G. rudis</i> – 254 plants from 63 point locations.

Vegetation types

Surveys 1 to 4 recorded a total of 30 different vegetation types across the application area (Table 4). This does not include areas where native vegetation was absent or largely absent. Such areas were recorded in all survey areas for Surveys 1 to 3 and were described as follows:

- Survey 1 – Highly modified (HM) – Includes areas that have been predominantly cleared but which still contain either scattered natives or introduced species. These include bulldozed firebreaks that contain seed and which may support occasional native species.
- Survey 2 – Cleared/Degraded – Includes existing clearing road reserve, gravel pits, tracks and firebreaks. Often comprises Scattered Shrubs over Scattered Bunch introduced grass and Scattered Herbs.
- Survey 3 – Cleared – remnant vegetation has been removed.

Table 4. Vegetation types recorded in the application area.

Area ID	Survey	Vegetation Type	Description
Area 1	Survey 1	Parkland cleared (PC)	Woodland of <i>Corymbia calophylla</i> over weed grassland of * <i>Ehrharta calycina</i> , * <i>E. longiflora</i> and * <i>Avena</i> spp. with occasional <i>Banksia prionotes</i> , <i>Xanthorrhoea preissii</i> and <i>Grevillea vestita</i> , and occasional trees of <i>Eucalyptus rudis</i> in low-lying areas.
Area 2	Survey 1	<i>Banksia attenuata</i> and <i>B. menziesii</i> woodland (BaBmW)	Woodland of <i>Banksia menziesii</i> and <i>B. attenuata</i> over sparse tall shrubland of <i>Adenanthos cygnorum</i> , <i>Jacksonia floribunda</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Bossiaea eriocarpa</i> , <i>Eremaea pauciflora</i> , <i>Stirlingia latifolia</i> and open sedgeland of <i>Lyginia barbata</i> , <i>Alexgeorgea nitens</i> and <i>Mesomelaena pseudostygia</i> over sparse hermland of <i>Haemodorum</i> sp., <i>Drosera erythrorhiza</i> and <i>Dampiera linearis</i> .
	Survey 3	PI01	<i>Banksia attenuata</i> and <i>Banksia menziesii</i> low woodland over <i>Adenanthos cygnorum</i> subsp. <i>cygnorum</i> and <i>Eremaea pauciflora</i> var. <i>pauciflora</i> open shrubland over <i>Stirlingia latifolia</i> low open shrubland over <i>Mesomelaena pseudostygia</i> very open sedgeland.
Area 3	Survey 1	<i>Banksia attenuata</i> and <i>B. menziesii</i> woodland (BaBmW)	Woodland of <i>Banksia menziesii</i> and <i>B. attenuata</i> over sparse tall shrubland of <i>Adenanthos cygnorum</i> , <i>Jacksonia floribunda</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Bossiaea eriocarpa</i> , <i>Eremaea pauciflora</i> , <i>Stirlingia latifolia</i> and open sedgeland of <i>Lyginia barbata</i> , <i>Alexgeorgea nitens</i> and <i>Mesomelaena pseudostygia</i> over sparse hermland of <i>Haemodorum</i> sp., <i>Drosera erythrorhiza</i> and <i>Dampiera linearis</i> .
Area 4	Survey 1	<i>Banksia attenuata</i> and <i>B. menziesii</i> woodland (BaBmW)	Woodland of <i>Banksia menziesii</i> and <i>B. attenuata</i> over sparse tall shrubland of <i>Adenanthos cygnorum</i> , <i>Jacksonia floribunda</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Bossiaea eriocarpa</i> , <i>Eremaea pauciflora</i> , <i>Stirlingia latifolia</i> and open sedgeland of <i>Lyginia barbata</i> , <i>Alexgeorgea nitens</i> and <i>Mesomelaena pseudostygia</i> over sparse hermland of <i>Haemodorum</i> sp., <i>Drosera erythrorhiza</i> and <i>Dampiera linearis</i> .
	Survey 1	<i>Melaleuca preissiana</i> Woodland (MpW)	Woodland of <i>Melaleuca preissiana</i> over tall shrubland of <i>M. incana</i> subsp. <i>incana</i> , <i>Hypocalymma angustifolium</i> , <i>Gastrolobium obovatum</i> over closed sedgeland of <i>Gahnia trifida</i> , <i>Juncus kraussii</i> subsp. <i>australiensis</i> , <i>Schoenus caespitius</i> over sparse hermland of <i>Laxmannia ramosa</i> subsp. <i>ramosa</i> , <i>Drosera erythrorhiza</i> , <i>Isotropis cuneifolia</i> subsp. <i>cuneifolia</i> .
	Survey 3	PI01	<i>Banksia attenuata</i> and <i>Banksia menziesii</i> low woodland over <i>Adenanthos cygnorum</i> subsp. <i>cygnorum</i> and <i>Eremaea pauciflora</i> var. <i>pauciflora</i> open shrubland over <i>Stirlingia latifolia</i> low open shrubland over <i>Mesomelaena pseudostygia</i> very open sedgeland.
	Survey 3	PI04	<i>Eucalyptus tottiana</i> , <i>Banksia attenuata</i> and <i>Banksia menziesii</i> low open woodland over <i>Xanthorrhoea preissii</i> open shrubland over <i>Hibbertia crassifolia</i> , <i>Eremaea pauciflora</i> var. <i>pauciflora</i> and <i>Allocasuarina humilis</i> low shrubland over <i>Mesomelaena pseudostygia</i> and <i>Tetraria octandra</i> very open sedgeland.
	Survey 3	PI05	<i>Corymbia calophylla</i> low open forest over <i>Xanthorrhoea preissii</i> and <i>Hakea trifurcata</i> open shrubland over <i>Bossiaea eriocarpa</i> and <i>Jacksonia sternbergiana</i> low shrubland over <i>Mesomelaena pseudostygia</i> and <i>Caustis dioica</i> open sedgeland.

Area ID	Survey	Vegetation Type	Description
Area 5	Survey 1	<i>Banksia attenuata</i> and <i>B. menziesii</i> woodland (BaBmW)	Woodland of <i>Banksia menziesii</i> and <i>B. attenuata</i> over sparse tall shrubland of <i>Adenanthos cygnorum</i> , <i>Jacksonia floribunda</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Bossiaea eriocarpa</i> , <i>Eremaea pauciflora</i> , <i>Stirlingia latifolia</i> and open sedgeland of <i>Lyginia barbata</i> , <i>Alexgeorgea nitens</i> and <i>Mesomelaena pseudostygia</i> over sparse herbland of <i>Haemodorum</i> sp., <i>Drosera erythrorhiza</i> and <i>Dampiera linearis</i> .
	Survey 2	<i>Banksia</i> Woodland on White Sand	Low Open Woodland dominated by <i>Banksia attenuata</i> , <i>B. menziesii</i> with <i>Eucalyptus tottiana</i> over Scattered Shrubs of <i>B. attenuata</i> , <i>Jacksonia floribunda</i> over Low Shrubland to Open Shrubland of <i>Melaleuca urceolaris</i> and <i>Eremaea pauciflora</i> over Sedgeland of <i>Desmocladius subterranea</i> , <i>Xanthorrhoea preissii</i> over herbs <i>Trachymene pilosa</i> , <i>Podotherca angustifolia</i> , <i>Burchardia congesta</i> , <i>Pterostylis dilatata</i> on White Sand.
	Survey 2	Geomorphic Wetland	Trees of <i>Corymbia calophylla</i> , <i>Melaleuca preissiana</i> over Shrubs of <i>M. preissiana</i> , <i>M. incana</i> , <i>Hypocalymma angustifolium</i> over Sedgeland of <i>Lepidosperma squamatum</i> , * <i>Cyperus congestus</i> .
	Survey 2	Marri <i>Banksia</i> Woodland	Woodland of <i>Corymbia calophylla</i> over Low Woodland of <i>Banksia attenuata</i> , <i>Banksia prionotes</i> over High Open Shrubland of <i>Allocasuarina humilis</i> , <i>Nuytsia floribunda</i> over Scattered Shrubs of <i>Jacksonia horrida</i> , <i>Hibbertia hypericoides</i> over Low Shrubland of <i>Calothamnus sanguineus</i> , <i>Acacia pulchella</i> var. <i>glaberrima</i> , <i>Banksia nivea</i> over Open Sedgeland of <i>Caustis dioica</i> , <i>Mesomelaena pseudostygia</i> over Scattered Herbs of <i>Cassytha flava</i> , <i>Haemodorum brevisepalum</i> .
	Survey 2	Heath and Emergents	Scattered Low Trees of <i>Banksia attenuata</i> , <i>Eucalyptus tottiana</i> over Scattered Heath of <i>Leucopogon oldfieldii</i> , <i>Astroloma xerophyllum</i> , <i>Hibbertia aurea</i> , <i>Hakea obliqua</i> , <i>H. ruscifolia</i> , <i>Melaleuca trichophylla</i> over Low Shrubland of <i>Conostylis</i> , <i>Calothamnus sanguineus</i> over Very Open Sedgeland of <i>Mesomelaena pseudostygia</i> , <i>Desmocladius subterranea</i> , <i>Lyginia barbata</i> over Scattered Herbs of <i>Drosera</i> spp. and <i>Burchardia congesta</i> .
Area 6	Survey 1	<i>Banksia attenuata</i> and <i>B. menziesii</i> woodland (BaBmW)	Woodland of <i>Banksia menziesii</i> and <i>B. attenuata</i> over sparse tall shrubland of <i>Adenanthos cygnorum</i> , <i>Jacksonia floribunda</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Bossiaea eriocarpa</i> , <i>Eremaea pauciflora</i> , <i>Stirlingia latifolia</i> and open sedgeland of <i>Lyginia barbata</i> , <i>Alexgeorgea nitens</i> and <i>Mesomelaena pseudostygia</i> over sparse herbland of <i>Haemodorum</i> sp., <i>Drosera erythrorhiza</i> and <i>Dampiera linearis</i> .
	Survey 1	Tall Mixed Shrubland (TMS)	Tall shrubland of <i>Xanthorrhoea preissii</i> , <i>Hakea trifurcata</i> and <i>Jacksonia sternbergiana</i> over shrubland of <i>Hibbertia hypericoides</i> , <i>Petrophile macrostachya</i> and <i>Calothamnus quadrifidus</i> subsp. <i>quadrifidus</i> and grassland of <i>Austrostipa elegantissima</i> , * <i>Ehrharta longiflora</i> , <i>Neurachne alopecuroides</i> over open herbland of <i>Drosera erythrorhiza</i> , <i>Hypochaeris glabra</i> , * <i>Ursinia anthemoides</i> .

Area ID	Survey	Vegetation Type	Description
Area 7	Survey 1	<i>Banksia attenuata</i> and <i>B. menziesii</i> woodland (BaBmW)	Woodland of <i>Banksia menziesii</i> and <i>B. attenuata</i> over sparse tall shrubland of <i>Adenanthos cygnorum</i> , <i>Jacksonia floribunda</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Bossiaea eriocarpa</i> , <i>Eremaea pauciflora</i> , <i>Stirlingia latifolia</i> and open sedgeland of <i>Lyginia barbata</i> , <i>Alexgeorgea nitens</i> and <i>Mesomelaena pseudostygia</i> over sparse herbland of <i>Haemodorum</i> sp., <i>Drosera erythrorhiza</i> and <i>Dampiera linearis</i> .
	Survey 3	PI01	<i>Banksia attenuata</i> and <i>Banksia menziesii</i> low woodland over <i>Adenanthos cygnorum</i> subsp. <i>cygnorum</i> and <i>Eremaea pauciflora</i> var. <i>pauciflora</i> open shrubland over <i>Stirlingia latifolia</i> low open shrubland over <i>Mesomelaena pseudostygia</i> very open sedgeland.
	Survey 3	PI02	<i>Grevillea eriostachya</i> and <i>Allocasuarina humilis</i> tall open shrubland over <i>Xanthorrhoea preissii</i> and <i>Eremaea pauciflora</i> var. <i>pauciflora</i> open shrubland over <i>Austrostipa elegantissima</i> and <i>Amphipogon turbinatus</i> very open tussock grassland over <i>Mesomelaena pseudostygia</i> very open sedgeland.
	Survey 3	PI03	<i>Calothamnus quadrifidus</i> subsp. <i>quadrifidus</i> , <i>Allocasuarina humilis</i> and <i>Jacksonia floribunda</i> tall shrubland over <i>Eremaea pauciflora</i> var. <i>pauciflora</i> and <i>Xanthorrhoea preissii</i> shrubland over <i>Hibbertia crassifolia</i> low open shrubland over <i>Tetraria octandra</i> , <i>Mesomelaena pseudostygia</i> open sedgeland.
	Survey 3	PI04	<i>Eucalyptus tottiana</i> , <i>Banksia attenuata</i> and <i>Banksia menziesii</i> low open woodland over <i>Xanthorrhoea preissii</i> open shrubland over <i>Hibbertia crassifolia</i> , <i>Eremaea pauciflora</i> var. <i>pauciflora</i> and <i>Allocasuarina humilis</i> low shrubland over <i>Mesomelaena pseudostygia</i> and <i>Tetraria octandra</i> very open sedgeland.
	Survey 3	W01	<i>Banksia prionotes</i> and <i>Melaleuca raphiophylla</i> tall shrubland over <i>Acacia saligna</i> subsp. <i>saligna</i> open shrubland over <i>Juncus kraussii</i> subsp. <i>australiensis</i> low open shrubland over <i>*Ehrharta calycina</i> very open tussock grassland.
Area 8	Survey 1	<i>Banksia attenuata</i> and <i>B. menziesii</i> woodland over mixed shrubland and sedgeland (BaBmWMS)	Woodland of <i>Banksia menziesii</i> and <i>B. attenuata</i> over sparse tall shrubland of <i>Allocasuarina humilis</i> , <i>Jacksonia sternbergiana</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Bossiaea eriocarpa</i> , <i>Hibbertia hypericoides</i> and <i>Hypocalymma xanthopetalum</i> over mixed grassland and sedgeland of <i>Mesomelaena pseudostygia</i> , <i>*Ehrharta</i> spp. and <i>*Briza maxima</i> .
	Survey 1	Low, mixed heath (LMH)	Sparse shrubland of <i>Allocasuarina humilis</i> , <i>Leptospermum erubescens</i> and <i>Conospermum stoechadis</i> over sedgeland of <i>Ecdeiocolea monostachya</i> over low shrubland of <i>Calothamnus sanguineus</i> , <i>Hibbertia hypericoides</i> and <i>Daviesia nudiflora</i> over mixed sedgeland and grassland of <i>Neurachne alopecuroidea</i> , <i>Desmocladius</i> spp. and <i>Mesomelaena pseudostygia</i> , <i>Schoenus</i> spp. and sparse herbland of <i>Trachymene pilosa</i> , <i>Drosera</i> spp. and <i>Poranthera microphylla</i> .
	Survey 1	<i>Eucalyptus rudis</i> – <i>Melaleuca raphiophylla</i> woodland (ErMrW)	<i>Eucalyptus rudis</i> – <i>Melaleuca raphiophylla</i> woodland over weedy grasses, including <i>*Ehrharta</i> spp. and <i>*Eragrostis curvula</i> .
Area 9	Survey 1	Low, mixed heath (LMH)	Sparse shrubland of <i>Allocasuarina humilis</i> , <i>Leptospermum erubescens</i> and <i>Conospermum stoechadis</i> over sedgeland of <i>Ecdeiocolea monostachya</i> over low shrubland of <i>Calothamnus sanguineus</i> , <i>Hibbertia hypericoides</i> and <i>Daviesia nudiflora</i> over mixed sedgeland and grassland of <i>Neurachne alopecuroidea</i> , <i>Desmocladius</i> spp. and <i>Mesomelaena pseudostygia</i> , <i>Schoenus</i> spp. and sparse herbland of <i>Trachymene pilosa</i> , <i>Drosera</i> spp. and <i>Poranthera microphylla</i> .
	Survey 1	<i>Eucalyptus tottiana</i> and <i>Banksia attenuata</i> very open woodland (BaEtOW)	Open woodland of <i>Banksia attenuata</i> , <i>B. menziesii</i> and <i>Eucalyptus tottiana</i> over open shrubland of <i>Hakea ruscifolia</i> , <i>Xanthorrhoea preissii</i> and <i>Allocasuarina humilis</i> over low shrubland of <i>Petrophile macrostachya</i> , <i>Eremaea pauciflora</i> and <i>Hakea incrassata</i> and grassland of <i>*Ehrharta</i> spp., <i>*Eragrostis curvifolia</i> and <i>*Bromus diandrus</i>

Area ID	Survey	Vegetation Type	Description
Area 10	Survey 1	Low mixed heath (LMH)	Sparse shrubland of <i>Allocasuarina humilis</i> , <i>Leptospermum erubescens</i> and <i>Conospermum stoechadis</i> over sedgeland of <i>Ecdeiocolea monostachya</i> over low shrubland of <i>Calothamnus sanguineus</i> , <i>Hibbertia hypericoides</i> and <i>Daviesia nudiflora</i> over mixed sedgeland and grassland of <i>Neurachne alopecuroidea</i> , <i>Desmocladius</i> spp. and <i>Mesomelaena pseudostygia</i> , <i>Schoenus</i> spp. and sparse herbland of <i>Trachymene pilosa</i> , <i>Drosera</i> spp. and <i>Poranthera microphylla</i> .
	Survey 1	Mixed Tall shrubland (MTS)	Sparse woodland of <i>Banksia attenuata</i> over tall shrubland of <i>Adenanthos cygnorum</i> , <i>Allocasuarina humilis</i> , <i>Jacksonia nutans</i> over mixed, low shrubland of <i>Jacksonia floribunda</i> , <i>Hibbertia hypericoides</i> and <i>Eremaea asterocarpa</i> over sedgeland of <i>Alexgeorgea nitens</i> , <i>Lyginia barbata</i> and <i>Mesomelaena pseudostygia</i> .
	Survey 1 and 4	Tall <i>Adenanthos</i> and <i>Allocasuarina</i> Shrubland (AcAhS)	Tall shrubland of <i>Adenanthos cygnorum</i> , <i>Allocasuarina humilis</i> and <i>Leptospermum erubescens</i> over mixed, low shrubland of <i>Jacksonia floribunda</i> , <i>Hibbertia hypericoides</i> and <i>Daviesia podophylla</i> over herbland of <i>Dampiera linearis</i> , <i>Dampiera linearis</i> and <i>Conostylis teretifolia</i> .
	Survey 2	Heath and Emergents	Scattered Low Trees of <i>Banksia attenuata</i> , <i>Eucalyptus tottiana</i> over Scattered Heath of <i>Leucopogon oldfieldii</i> , <i>Astroloma xerophyllum</i> , <i>Hibbertia aurea</i> , <i>Hakea obliqua</i> , <i>H. ruscifolia</i> , <i>Melaleuca trichophylla</i> over Low Shrubland of <i>Conostylis</i> , <i>Calothamnus sanguineus</i> over Very Open Sedgeland of <i>Mesomelaena pseudostygia</i> , <i>Desmocladius subterranea</i> , <i>Lyginia barbata</i> over Scattered Herbs of <i>Drosera</i> spp. and <i>Burchardia congesta</i> .
	Survey 2	Mixed Heath on White Sand (with Laterite)	Open Heathland of <i>Leucopogon oldfieldii</i> , <i>Calothamnus sanguineus</i> , <i>Hibbertia hypericoides</i> , <i>H. subvaginata</i> , <i>Leucopogon oldfieldii</i> , <i>Stirlingia incrassata</i> over Low Open Shrubland <i>Banksia shuttleworthiana</i> , <i>Hakea conchifolia</i> , <i>Jacksonia floribunda</i> over Sedgeland of <i>Dasyogon bromeliifolius</i> , <i>Mesomelaena pseudostygia</i> , <i>Xanthorrhoea preissii</i> , <i>Desmocladius subterranea</i> over Scattered Herbs of <i>Drosera citrina</i> , <i>D. bulbosa</i> subsp. <i>bulbosa</i> , <i>Stylidium miniatum</i> , on White Sand with Laterite.
	Survey 2 and 4	Low Open Banksia Woodland	Low Open Woodland of <i>Eucalyptus tottiana</i> , <i>Banksia menziesii</i> , <i>B. attenuata</i> , over Shrubland of <i>Hakea obliqua</i> over Low Open Shrubland of <i>Banksia shuttleworthiana</i> , <i>Jacksonia floribunda</i> , <i>Conostylis setigera</i> subsp. <i>setigera</i> , <i>Stirlingia latifolia</i> , <i>Calothamnus sanguineus</i> , <i>Hakea prostrata</i> over Open Sedgeland of <i>Schoenus rigens</i> , <i>Dasyogon bromeliifolius</i> , <i>Desmocladius subterranea</i> , <i>Lyginia barbata</i> , <i>Mesomelaena pseudostygia</i> over Very Open Herbs of <i>Phyllangium divergens</i> , <i>Burchardia congesta</i> , <i>Drosera citrina</i> , <i>Stylidium miniatum</i> .
	Survey 4	Fine mosaic of Banksia Woodland and Low Heath	A very open woodland of <i>Banksia prionotes</i> with occasional emergent <i>Eucalyptus tottiana</i> and <i>Adenanthos cygnorum</i> over <i>Hakea varia</i> , <i>Petrophile macrostachya</i> , <i>Conospermum crassinervium</i> , <i>Acacia pulchella</i> , <i>Leptospermum erubescens</i> , shrubland over <i>Ecdeiocolea monostachya</i> , <i>Conostylis setigera</i> , <i>Scaevola phlebotopeta</i> , <i>Lechenaultia linearis</i> , <i>Opercularia vaginata</i> , <i>Hibbertia huegelii</i> .
	Survey 4	Geomorphic Dampland	Low heath of <i>Melaleuca</i> species with twiners of <i>Cassytha glabella</i> over a seasonal ephemeral layer of <i>Drosera</i> and <i>Asteraceae</i> species.
	Survey 4	Geomorphic Wetland	Trees of <i>Corymbia calophylla</i> , <i>Melaleuca preissiana</i> over Shrubs of <i>M. preissiana</i> , <i>M. incana</i> , <i>Hypocalymma angustifolium</i> over Sedgeland of <i>Lepidosperma squamatum</i> , * <i>Cyperus congestus</i> .
	Survey 4	Mixed heath (MH)	Sedgeland of <i>Ecdeiocolea monostachya</i> over heathland of <i>Allocasuarina microstachya</i> , <i>Banksia</i> spp. and <i>Petrophile</i> spp. over herbland of <i>Dampiera spicigera</i> , <i>Pterochaeta paniculata</i> and <i>Drosera</i> spp.

Area ID	Survey	Vegetation Type	Description
Area 11	Survey 1	Low mixed heath (LMH)	Sparse shrubland of <i>Allocasuarina humilis</i> , <i>Leptospermum erubescens</i> and <i>Conospermum stoechadis</i> over sedgeland of <i>Ecdeiocolea monostachya</i> over low shrubland of <i>Calothamnus sanguineus</i> , <i>Hibbertia hypericoides</i> and <i>Daviesia nudiflora</i> over mixed sedgeland and grassland of <i>Neurachne alopecuroidea</i> , <i>Desmocladius</i> spp. and <i>Mesomelaena pseudostygia</i> , <i>Schoenus</i> spp. and sparse herbland of <i>Trachymene pilosa</i> , <i>Drosera</i> spp. and <i>Poranthera microphylla</i> .
	Survey 1	Mixed Tall shrubland (MTS)	Sparse woodland of <i>Banksia attenuata</i> over tall shrubland of <i>Adenanthos cygnorum</i> , <i>Allocasuarina humilis</i> , <i>Jacksonia nutans</i> over mixed, low shrubland of <i>Jacksonia floribunda</i> , <i>Hibbertia hypericoides</i> and <i>Eremaea asterocarpa</i> over sedgeland of <i>Alexgeorgea nitens</i> , <i>Lyginia barbata</i> and <i>Mesomelaena pseudostygia</i> .
	Survey 1	Tall <i>Adenanthos</i> and <i>Allocasuarina</i> Shrubland (AcAHS)	Tall shrubland of <i>Adenanthos cygnorum</i> , <i>Allocasuarina humilis</i> and <i>Leptospermum erubescens</i> over mixed, low shrubland of <i>Jacksonia floribunda</i> , <i>Hibbertia hypericoides</i> and <i>Daviesia podophylla</i> over herbland of <i>Dampiera linearis</i> , <i>Dampiera linearis</i> and <i>Conostylis teretifolia</i> .
	Survey 1	Low <i>Calothamnus</i> heath (CqS)	Closed shrubland of <i>Calothamnus</i> species over herbland of <i>Drosera</i> spp., <i>Hypochaeris</i> sp. and <i>Stylidium</i> sp.
Area 12	Survey 2 and 4	Mixed Heath on White Sand (with Laterite)	Open Heathland of <i>Leucopogon oldfieldii</i> , <i>Calothamnus sanguineus</i> , <i>Hibbertia hypericoides</i> , <i>H. subvaginata</i> , <i>Leucopogon oldfieldii</i> , <i>Stirlingia incassata</i> over Low Open Shrubland <i>Banksia shuttleworthiana</i> , <i>Hakea conchifolia</i> , <i>Jacksonia floribunda</i> over Sedgeland of <i>Dasyogon bromeliifolius</i> , <i>Mesomelaena pseudostygia</i> , <i>Xanthorrhoea preissii</i> , <i>Desmocladius subterranea</i> over Scattered Herbs of <i>Drosera citrina</i> , <i>D. bulbosa</i> subsp. <i>bulbosa</i> , <i>Stylidium miniatum</i> , on White Sand with Laterite.
	Survey 2	Low Open <i>Banksia</i> Woodland	Low Open Woodland of <i>Eucalyptus tottiana</i> , <i>Banksia menziesii</i> , <i>B. attenuata</i> , over Shrubland of <i>Hakea obliqua</i> over Low Open Shrubland of <i>Banksia shuttleworthiana</i> , <i>Jacksonia floribunda</i> , <i>Conostylis setigera</i> subsp. <i>setigera</i> , <i>Stirlingia latifolia</i> , <i>Calothamnus sanguineus</i> , <i>Hakea prostrata</i> over Open Sedgeland of <i>Schoenus rigens</i> , <i>Dasyogon bromeliifolius</i> , <i>Desmocladius subterranea</i> , <i>Lyginia barbata</i> , <i>Mesomelaena pseudostygia</i> over Very Open Herbs of <i>Phyllangium divergens</i> , <i>Burchardia congesta</i> , <i>Drosera citrina</i> , <i>Stylidium miniatum</i> .
	Survey 2	Heath on Gravel	Scattered Shrubs of <i>Petrophile macrostachya</i> , <i>Allocasuarina humilis</i> over Low Open Heath of <i>Leucopogon oldfieldii</i> , <i>Gastrolobium polystachyum</i> , <i>Eremaea pauciflora</i> , <i>Astroloma glaucescens</i> over Sedgeland of <i>Mesomelaena tetragona</i> over Scattered Herbs of <i>Stylidium cygnorum</i> , <i>Drosera porrecta</i> .
Area 13	Survey 1	Northern <i>Banksia</i> woodland (BW)	Sparse woodland of <i>Banksia attenuata</i> and <i>B. menziesii</i> over shrubland of <i>Melaleuca seriata</i> , <i>M. leuropoma</i> and <i>Acacia pulchella</i> over mixed grassland and sedgeland of <i>Lyginia</i> spp., <i>Desmocladius</i> spp. and <i>*Ehrharta calycina</i> over herbland of <i>Burchardia congesta</i> , <i>*Ursinia anthemoides</i> and <i>Conostylis aculeata</i> subsp. <i>aculeata</i> .
	Survey 1	Mixed tall shrubland (TS)	Sparse tall shrubland of <i>Adenanthos cygnorum</i> and <i>Hakea trifurcata</i> over shrubland of <i>Melaleuca</i> spp., <i>Hypocalymma xanthopetalum</i> and <i>Banksia</i> spp. and grassland of <i>Neurachne alopecuroidea</i> , <i>*Avena barbata</i> and <i>*Briza maxima</i> .
	Survey 1	Mixed heath (MH)	Sedgeland of <i>Ecdeiocolea monostachya</i> over heathland of <i>Allocasuarina microstachya</i> , <i>Banksia</i> spp. and <i>Petrophile</i> spp. over herbland of <i>Dampiera spicigera</i> , <i>Pterochaeta paniculata</i> and <i>Drosera</i> spp.
	Survey 1	<i>Calothamnus</i> shrubland and <i>Meeboldina</i> sedgeland (CtSMcS)	Low shrubland of <i>Calothamnus hirsutus</i> , <i>Thryptomene mucronulata</i> and <i>Verticordia</i> spp. over mixed sedgeland of <i>Meeboldina coangustata</i> , <i>Schoenus insolitus</i> and <i>Centrolepis</i> spp. and herbland of <i>Tribonanthes australis</i> , <i>Stylidium flagellum</i> and <i>Drosera gigantea</i> subsp. <i>gigantea</i> .

Vegetation condition

Vegetation condition recorded across the application area ranges from Completely Degraded to Pristine using the Keighery (1994) scale (Table 5). Vegetation condition of two short sections within Area 10/Area 11 was not interpretable at the time of survey due to having been burnt. The majority (i.e. 46 per cent) of the vegetation within the application area was recorded to be in Excellent condition.

Vegetation condition ratings are defined as follows:

- Pristine: Pristine or nearly so, no obvious signs of disturbance (Keighery, 1994).
- Excellent: Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species (Keighery, 1994).
- Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
- Good: Vegetation structure significantly altered by very obvious signs of multiple disturbance; retains basic structure or ability to regenerate (Keighery 1994).
- Degraded: Basic vegetation structure severely impacted by disturbance; scope for regeneration but not to a state approaching Good condition without intensive management (Keighery 1994).
- Completely Degraded: The structure of the vegetation is no longer intact and the area is completely or almost completely without native species (Keighery, 1994).

Table 5. Vegetation condition recorded in the application area.

Area ID	Survey	SLK Start	SLK End	Side of road	Distance (m)	Vegetation condition
Area 1	Survey 1	34.83	36	West	1170	Completely Degraded to Degraded
				East	1170	Completely Degraded to Degraded
Area 2	Survey 7	65	65.1	West	100	Excellent
	Survey 3	65.1	66.6	East	100	Excellent
				West	1500	Excellent
	Survey 1	66.6	68.63	East	1500	Good
West				2030	Very Good	
Area 3	Survey 1	68.63	71.02	East	2030	Very Good
				West	2390	Very Good to Excellent
Area 4	Survey 1	71.02	71.5	East	2390	Very Good
				West	480	Very Good
	Survey 3	71.5	74	East	480	Very Good
				West	2500	Excellent
Area 5	Survey 8	77.3	77.54	East	2060	Excellent
				West	170	Very Good
				East	270	Good
	Survey 2	77.54	79.7	West	240	Very Good
				East	240	Good to Very Good
				West	810	Very Good to Excellent
Survey 1	79.7	79.84	East	880	Very Good	
			West	470	Good to Very Good	
			East	1200	Very Good to Excellent	
Area 6	Survey 1	79.84	81.71	West	330	Very Good
				East	630	Good
				West	140	Good to Very Good
Area 7	Survey 1	81.71	82.1	East	140	Good to Very Good
				West	1180	Good to Very Good
	Survey 3	82.1	86.0	East	690	Good to Very Good
				West	1690	Good to Very Good
				East	180	Degraded to Good
				West	390	Good to Very Good
				East	390	Good to Very Good
				West	1040	Excellent
				East	2240	Very Good
				West	360	Degraded
East	260	Completely Degraded				
Area 8	Survey 1	111.08	112.9	East	330	Excellent
				West	1230	Very Good
				East	860	Good
				West	130	Degraded
				East	1350	Completely Degraded
Area 9	Survey 1	114.1	116.1	West	50	Very Good to Excellent
				East	1620	Good to Very Good
				West	150	Good
Area 10	Survey 1	116.1	117.1	East	1820	Very Good to Excellent
				West	1260	Very Good
				East	740	Good to Very Good
Area 11	Survey 1	117.1	118.1	West	750	Excellent
				East	1250	Good to Very Good

Area ID	Survey	SLK Start	SLK End	Side of road	Distance (m)	Vegetation condition	
Area 10	Survey 4	120	120.8	West	800	Excellent	
	Survey 2	120.8	125.13	East	800	Excellent	
				West	1100	Excellent to Pristine	
	Survey 1	125.13	126.2	West	3230	Excellent	
				East	4330	Excellent	
				West	1070	Good to Very Good	
	Survey 1	126.2	128.38	Refer Area 11	Refer Area 11	Refer Area 11	Refer Area 11
	Survey 1	128.38	129	West	500	Good to Very Good	
	Survey 4	129	130.1	East	120	Uninterpretable	
				West	500	Good to Very Good	
East				120	Uninterpretable		
West				1100	Excellent		
Survey 2	130.1	136	East	1100	Excellent		
			West	2600	Excellent		
Area 11	Survey 1	126.2	128.38	West	3300	Very Good to Excellent	
				East	2600	Excellent	
				West	3300	Very Good to Excellent	
				East	1820	Very Good to Excellent	
				West	180	Degraded	
Area 12	Survey 2	139	146.9	East	180	Uninterpretable	
				West	2000	Very Good to Excellent	
				East	180	Uninterpretable	
				West	7900	Excellent	
				East	7900	Excellent	
Area 13	Survey 1	160.1	163.6	West	1900	Excellent	
				East	1900	Excellent	
				West	3200	Excellent	
TOTAL					1600	Excellent	
					1600	Very Good	
					300	Excellent	
					2610	Very Good to Excellent	
					460	Good to Very Good	
					130	Degraded to Good	
					420	Excellent to Pristine	
					80	Excellent	
					2430	Very Good to Excellent	
					440	Good to Very Good	
130	Degraded to Good						
					1520 (1%)	Excellent to Pristine	
					50900 (46%)	Excellent	
					21730 (20%)	Very Good to Excellent	
					15360 (14%)	Very Good	
					11800 (11%)	Good to Very Good	
					3410 (3%)	Good	
					440 (0%)	Degraded to Good	
					670 (1%)	Degraded	
					2340 (2%)	Completely Degraded to Degraded	
					1610 (1%)	Completely Degraded	
					600 (1%)	Uninterpretable	
					110380 (100%)		

4. Assessment of application against clearing principles

The amendment is a result of an appeal determination made by the Minister for Environment regarding conditions of clearing permit CPS 7533/1.

The assessment against the clearing principles outlined in Schedule 5 of the *Environmental Protection Act 1986* has not changed and can be found in the Clearing Permit Decision Report CPS 7533/1.

Planning instruments and other relevant matters.

The assessment against planning instruments and other matters has not changed and can be found in clearing permit decision report CPS 7533/1.

5. References

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