



# Detailed Flora and Vegetation Survey Pit 7 Exploration Area

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# EXECUTIVE SUMMARY

Premier Coal Limited (PCL) commissioned Onshore Environmental Consultants Pty Ltd (Onshore Environmental) to undertake a detailed flora and vegetation survey covering the proposed Pit 7 exploration area situated outside of the current EPA disturbance footprint as approved under Ministerial Statement 416, herein referred to as the study area. The study area is situated approximately 9 km south-east of the Collie town site in the south-west region of Western Australia.

The field survey was completed by three botanists between the 30<sup>th</sup> October and the 3<sup>rd</sup> November 2019 and 16<sup>th</sup> and 17<sup>th</sup> of February 2022. A total number of 363 plant taxa from 54 families and 173 genera were recorded from the study area. Species representation was greatest among the Fabaceae, Myrtaceae, Proteaceae, Asteraceae, Cyperaceae and Stylidiaceae families. The most speciose genera were *Acacia* and *Stylidium* (17 taxa), followed by *Hibbertia* (11 taxa), *Gompholobium* (9 taxa), *Banksia*, *Lomandra* and *Styphelia* (8 taxa each). None of the plant taxa recorded from the study area were listed as Threatened Flora under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or Western Australian *Biodiversity Conservation Act 2016* (BC Act).

Two Priority 4 flora taxa were recorded from the study area; *Acacia semitrullata* and *Pultenaea skinneri*. Two plant taxa were also considered to represent range extensions from their current known distributions, *Acacia trigonophylla* and *Aotus procumbens*.

A total of 23 introduced species were recorded from the study area. One of these weed taxa was listed as a Declared Pest under the *Biosecurity and Agriculture Management Act 2007* (BAM Act); *Asparagus asparagoides* (Bridal Creeper) - s22(2) (Exempt).

A total of 13 vegetation types classified as ten broad floristic formations and occurring on six broad landforms were described and mapped from the study area. None of the vegetation types were aligned with Commonwealth or State listed Threatened Ecological Communities (TECs) or State listed Priority Ecological Communities (PECs), and all were well represented regionally.

Vegetation condition within the study area ranged from *completely degraded* to *excellent*. Approximately 48% of the study area did not support native vegetation and was mapped as a combination of cleared ground, pine plantation, powerline corridors, mine rehabilitation, roads, and water filled mining voids. Outside of these disturbed areas, native vegetation condition was predominantly rated as very good (31% of the study area) or excellent (13% of the study area), with a smaller proportion rated as good (5% of the study area) or degraded (3% of the study area). Disturbances recorded within the study area included historical logging of native hardwood timber, establishment of softwood plantation timber, historical mining and exploration, construction of access and haul roads, and fire.

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# 1.0 INTRODUCTION

## 1.1 Preamble

Premier Coal Limited (PCL) owns the Premier Coal Mine which is located near Collie in south-west Western Australia. PCL operates the Premier Coal Mine in accordance with the terms of the *Collie Coal (Western Collieries) Agreement Act 1979* (State Agreement Act) and the requirements of Mining Lease M262SA. PCL is planning for exploration activities in an area outside of the current EPA disturbance footprint as approved under Ministerial Statement 416, and hence, will apply for a Native Vegetation Clearing Permit.

The proposed Pit 7 exploration area is approximately 387 hectares (ha) which includes a mix of native vegetation (state forest), post-mining rehabilitation, pine plantation, water filled mining voids, and existing mine infrastructure (Figure 1). Approximately 201 ha of the proposed exploration area supports native vegetation. PCL propose to undertake up to 30 ha of clearing over a number of years to allow for exploration drilling.

PCL commissioned Onshore Environmental to undertake a detailed flora and vegetation survey of the study area (Figure 1), which was completed by three botanists between the 30<sup>th</sup> October and the 3<sup>rd</sup> November 2019 and 16<sup>th</sup> and 17<sup>th</sup> of February 2022<sup>1</sup>.

## 1.2 Biogeographic Regions

The Interim Biogeographic Regionalisation for Australia (IBRA) describes a system of 89 'biogeographic regions' (bioregions) and 419 subregions covering the entire Australian continent (IBRA7, Department of Environment 2015a). Bioregions are defined on the basis of climate, geology, landforms, vegetation and fauna. The study area is situated in the Jarrah Forest bioregion (Thackway and Cresswell 1995). The Jarrah Forest bioregion is divided into two subregions; the Northern Jarrah Forest (JF1) and the Southern Jarrah Forest (JF2). The study area is located close to the border of these two regions but within the Southern Jarrah Forest subregion.



The Southern Jarrah Forest is described as; "Duricrusted plateau of Yilgarn Craton characterised by Jarrah-Marri forest on laterite gravels and, in the eastern part, by Wandoo - Marri woodlands on clayey soils. Eluvial and alluvial deposits support *Agonis* shrublands. In areas of Mesozoic sediments, Jarrah forests occur in a mosaic with a variety of species-rich shrublands (Hearn, Williams, Comer and Beecham 2002)."

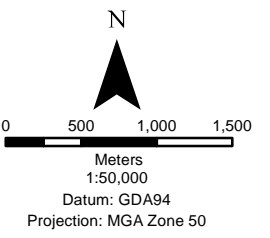
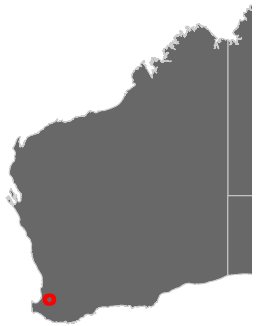
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<sup>1</sup> The study area was extended marginally to the east in early 2022 triggering additional field survey work.

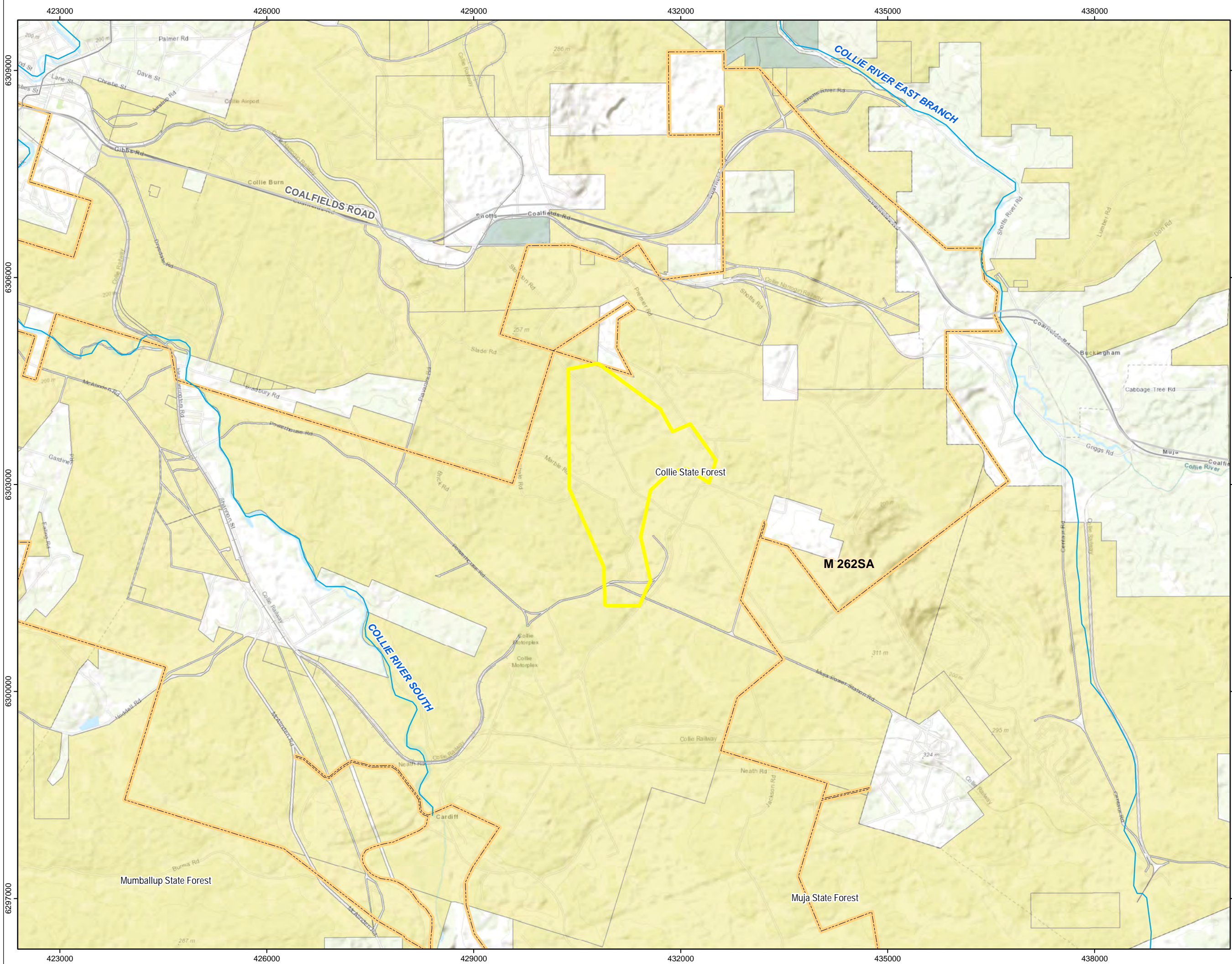
**Figure 1**

**Legend**

-  Study Area
-  M 262SA
-  CALM Exec Body Freehold
-  Conservation Park
-  National Park
-  Nature Reserve
-  State Forest
-  Timber Reserve



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## 1.3 Climate

The climate of south-west Western Australia is Mediterranean, with hot, dry summers and mild, wet winters. The Collie weather station is located nearby to the study area and has a long-term rainfall average of 927.7 mm (1899 to 2021), with highest monthly rainfall received during June (173 mm) and July (176 mm). Average maximum summer temperatures range between 28.3°C and 30.5°C with winter minimum temperatures ranging from 4.2°C to 5.0°C (Figure 2).

The 2019 annual rainfall total was 544.7 mm, which was well below the long term average (approximately 60%). Rainfall for the three months prior to the late October 2019 field survey totalled 224 mm, compared to the long-term average of 302 mm for the same period. While comparably low, the seasonal rainfall resulted in *good* seasonal conditions at the time of the late spring field survey.

The supplementary field survey work completed in mid February 2022 to assess a minor increase in the size of the study area, followed an above average rainfall year in 2021 (1,007.4 mm) (Figure 2).

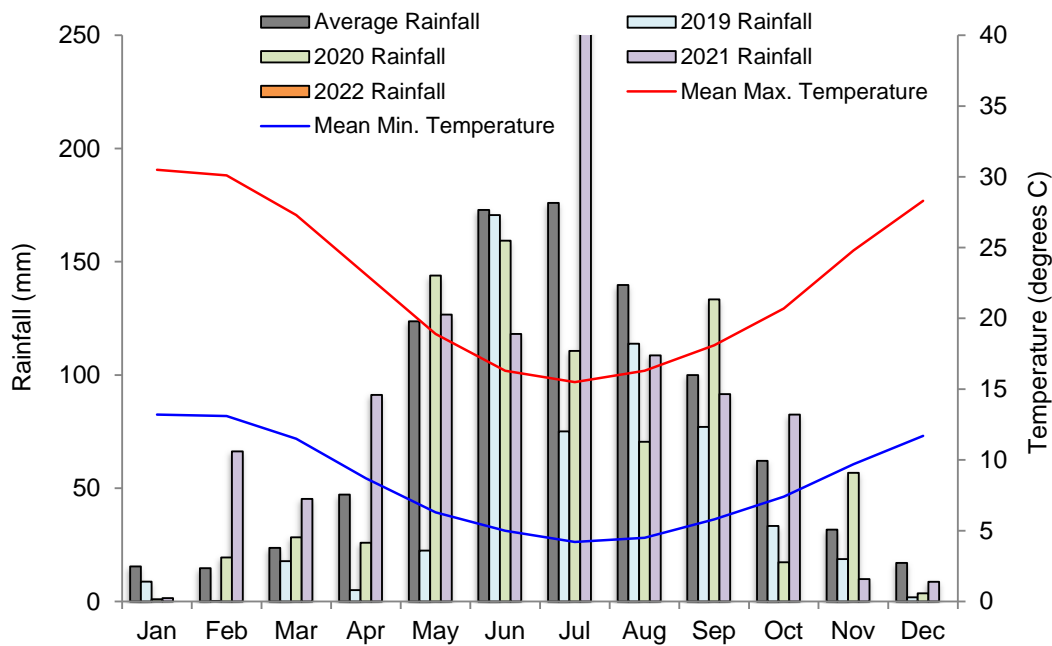


Figure 2 Monthly rainfall data from the Collie weather station from January 2019 to January 2022, with long term averages (Bureau of Meteorology [BOM] 2022).

## 1.4 Geology

The geology of the study area and the wider Collie region has been described by Wild and Walker (1982). The study area lies within the Collie Basin on the Darling Plateau. Permian sedimentary rocks occur in north north-west trending depressions on the Darling Plateau, and are completely covered by Tertiary sediments. The largest, the Collie Basin, contains 1300 m of strata whilst the smaller Wilga Basin contains 360 m of sediments. Both depressions contain similar sedimentary sequence and are believed to have resulted from glacial scouring into the Archaean basement rocks.



The Collie Basin is approximately 26 km in length by 13 km wide and stretches south-east from Allanson (to the west of Collie). There are three sub-basins; the Cardiff, Shotts and Muja Sub-basins. These basins are comprised of the lower Permian unit, the Stockton Formation and the overlying Collie Coal Measures. The Stockton Formation rests on a glacially striated granite pavement, and consists of a basal tillite, which is overlain by sandstone, siltstone and mudstone. The Collie Coal Measures are composed of a conglomerate, sandstone, siltstone, shale and intercalated seams of sub-bituminous coal.

The surface geology of the study area contains the geological formations outlined below (Wilde and Walker, 1982):

- Nakina Formation (Tn) - alluvial deposits of the upper Collie River system, variously dissected and reworked;
- Old alluvial deposits (Tg) - strongly laterised in part (includes the Greenbushes Formation). Conglomerate, sand and clay;
- Collie Coal Measures (Pcm) - coal seams in weakly lithified sand and grit, with minor clay and conglomerate. Only outcrops in open cut quarries;
- Laterite (Czl) - chiefly massive, but includes overlying pisolitic gravel and minor laterised sand;
- Colluvium (Crc) - including valley fill deposits, variably laterised and podsolised; and
- Colluvium (Crcs) - sand, often associated with older drainage courses.

## 1.5 Flora and Vegetation

### 1.5.1 Beard (1981) Vegetation Associations

The study area occurs in the Menzies Sub-district of the Darling Botanical District, in the South-West Botanical Province (Beard 1981). The Menzies Sub-district (southern jarrah forest) covers a total area of 26,572 km<sup>2</sup>, of which 18,715 km<sup>2</sup> (70 percent) originally supported jarrah and jarrah-marri forest (Beard 1981).

The study area lies within the Bridgetown Vegetation System as recognised by Beard (1981) (Figure 3). Within this system, there is one vegetation association that intersects the study area:

- Vegetation Association 3 - Medium Forest; Jarrah-Marri.

When determining representation and reservation of remaining vegetation, Vegetation Association 3 was determined to be well represented at all levels (statewide, bioregional [IBRA and IBRA sub-region], and local government authority), with more than 56% of the Pre-European extent remaining. Vegetation Association 3 was also determined to be well reserved, with more than 15% of the current extent protected for conservation within the Southern Jarrah Forest sub-region.

### 1.5.2 Mattiske and Havel (1998) Vegetation Complexes

The pre-1750 distribution of vegetation complexes of the south west forest region of Western Australia has been mapped at 1:50,000 scale by Mattiske and Havel (1998) as part of the biodiversity assessment for the comprehensive regional assessment for the south west forest region. This database has been used to assess flora and vegetation values as part of the 1999 Regional Forest Agreement (RFA). Interrogation of this database confirmed there were two vegetation complexes (as described and mapped by Mattiske and Havel 1998) intersecting the study area (Figure 4):

- Cardiff (CF) - *Uplands*: Open Woodland of *Allocasuarina fraseriana* - *Banksia* species - *Xylomelum occidentale* - *Nuytsia floribunda* on sandy soils on valley slopes in the subhumid zone; and
- Collie (CI) - *Uplands*: Open Forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* - *Allocasuarina fraseriana* on gravelly sandy upland soils in the subhumid zone.

These two vegetation complexes currently have between 54 percent and 71 percent of the pre-European extent remaining within the South West Forest Region, and approximately 15 percent of the current extent formally protected for conservation (for each complex). Both vegetation complexes are therefore determined to be well represented (i.e. greater than 30% of the pre-European extent remaining), and well reserved (i.e. >10 percent of the current extent secured within formal reserves).




**PREMIER COAL**



**FIGURE 3**

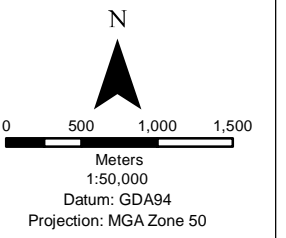
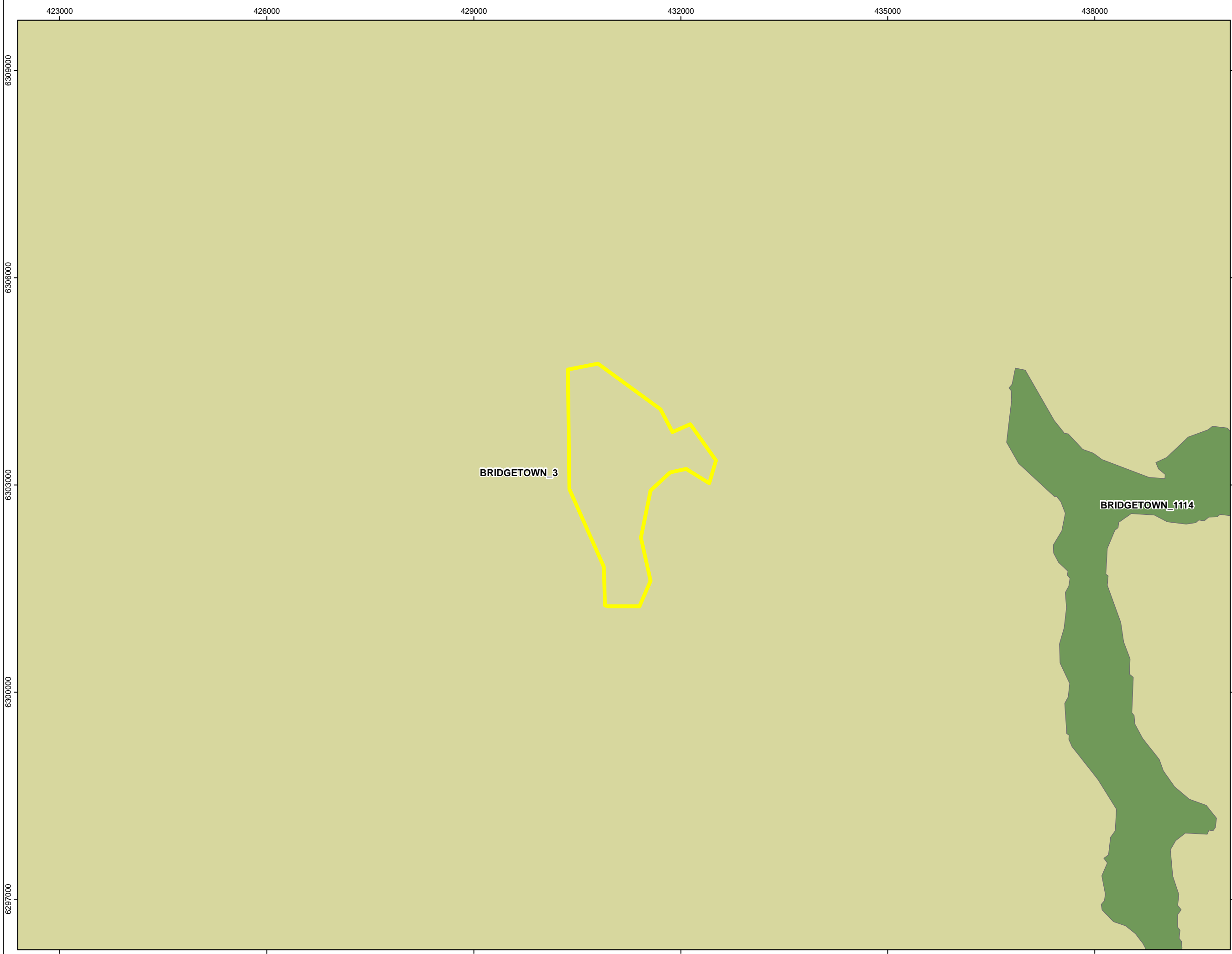
**Vegetation of the study area as mapped by Beard (1975)**

**Legend**

 Study Area

**Pre-European Vegetation (Beard 1975)**

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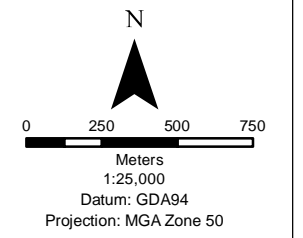
# PREMIER COAL

## FIGURE 4

Vegetation of the study area as mapped by Matisse and Havel (1998)

### Legend

- Study Area
- Matisse and Havel (1998) Vegetation Mapping**
- CF, Cardiff
- CI, Collie
- D4, Dwellingup
- MJ, Muja
- Pn, Pindalup
- Y5, Yalanbee



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## 2.0 METHODOLOGY

### 2.1 Legislation and Guidance Statements

The detailed flora and vegetation survey was carried out in a manner that was compliant with Environmental Protection Authority (EPA) requirements for the environmental surveying and reporting of flora and vegetation in Western Australia:

- Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016a); and
- Environmental Factor Guideline: Flora and Vegetation (EPA 2016b).

### 2.2 Desktop Assessment

#### 2.2.1 Literature Review

Regional scale reports relevant to the study area locality were reviewed, including:

- Smith (1974) in the Collie area (1:250,000);
- Hedde, Havel and Loneragan (1980) in the System 6 area; Perth, Pinjarra and Collie areas (1:250,000); and
- Mattiske and Havel (1998) in the vegetation mapping for the Regional Forest Agreement.

While no previous survey work has been completed within the boundary of the study area, at least 15 flora and vegetation surveys have previously been completed in close proximity to the study area. The previous survey work is summarised in more detail in Section 3.1.

#### 2.2.2 Database Searches

Desktop searches included databases relating to significant flora, TECs and PECs previously collected or described within, or in close proximity to, the study area. For this report the search was extended beyond the study area to place flora values into a local and regional context. The following databases were searched:

- NatureMap1: This database represents the most comprehensive source of information on the distribution of Western Australia's flora, comprising records from the Department of Biodiversity, Conservation and Attractions (DBCA) Threatened Flora database and the WA Herbarium Specimen Database (50 km radial search, accessed 14 October 2019);
- DBCA's Threatened and Priority flora database was searched to confirm the NatureMap results (50 km radial search, accessed 28 October 2019);
- DBCA's TEC, PEC and Environmentally Sensitive Areas (ESAs) database was searched to identify significant communities (50 km radial search, accessed 4 November 2019);
- EPBC Act Protected Matters database (DoEE 2019, accessed 14 October 2019); and
- International Union for Conservation of Nature (IUCN) database (IUCN 2019, accessed 14 October 2019).

#### 2.2.3 Assessment of Likelihood of Occurrence in the Study Area

A list of conservation significant species occurring within a 50 km radius of the study area was compiled during the desktop searches. The likelihood of each taxon occurring

within the study area was assessed using a set of rankings and criteria (Table 1) based on presence of suitable landform (inferred from aerial imagery with contours overlaid and from knowledge of the adjacent areas) and distance to known records.

**Table 1** Ranking system used to assign the likelihood that a species would occur in the study area.

Rank	Criteria
Recorded	The species has been recorded in the study area.
Likely to occur	The species has previously been recorded from a landform which is present within the study area, and there are previous records within a 5 km radius of the study area.
Possible to occur	The species has previously been recorded from a landform which is present within the study area, and there are previous records within a 10 km radius of the study area.
Unlikely to occur	The landform from which the species has previously been recorded is absent within the study area, and/or there are no previous records within a 10 km radius of the study area.

## 2.3 Baseline Survey Methodology

### 2.3.1 Timing and Personnel

The flora and vegetation survey was completed by Principal Botanists Dr Darren Brearley and Dr Jerome Bull, and Senior Botanist Ms Jessica Waters, working over a seven day period from the 30<sup>th</sup> October to the 3<sup>rd</sup> November 2019 and 16<sup>th</sup> to 17<sup>th</sup> of February 2022. The three field botanists have 26 years, 15 years and seven years' experience working in the South-West, and have completed number surveys within the Collie Basin over the past 20 years.

### 2.3.2 Sampling of Study Sites

The field survey involved systematic sampling using quadrats (referred to as study sites). Relevé<sup>2</sup> vegetation descriptions were made to increase the accuracy of vegetation mapping and targeted searches were completed in habitats where it was anticipated that significant flora might occur (Figure 5).

The study sites were 10 m by 10 m in dimension which is standard for the South West bioregion. The number of study sites sampled was determined by the size and heterogeneity of the study area, and confirmed by a species accumulation curve (Figure 6). A total of 36 quadrats were formally assessed. The locations of all quadrats sampled are provided in Figure 5.

<sup>2</sup> A relevé is a condensed sample site assessed rapidly to provide a more accurate indication of the wider survey area.

# PREMIER COAL

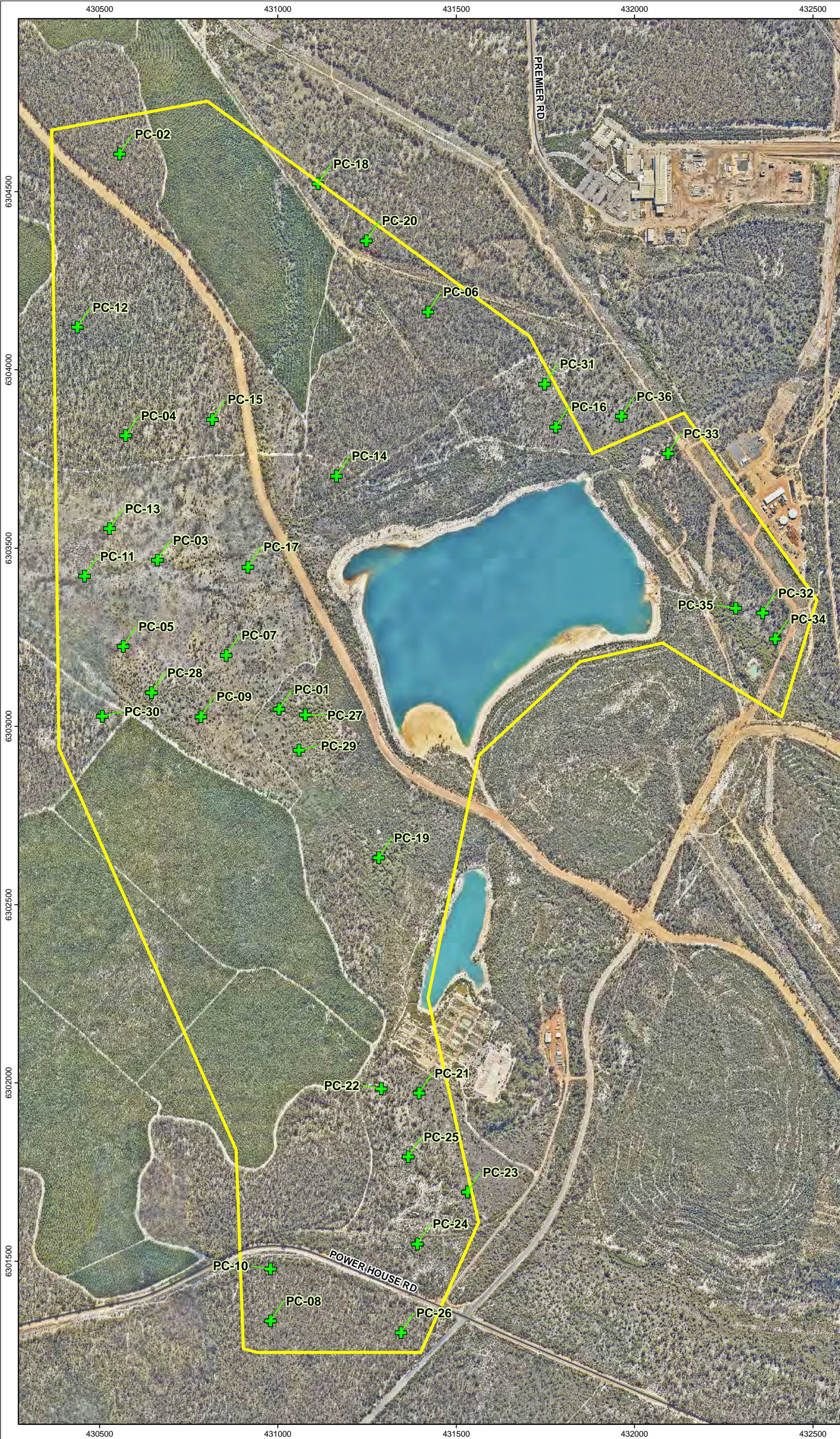
## FIGURE 5

Pit 7 Exploration Area

Sample site (quadrat) locations

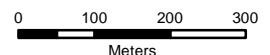
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- Study Area
- Sample Location



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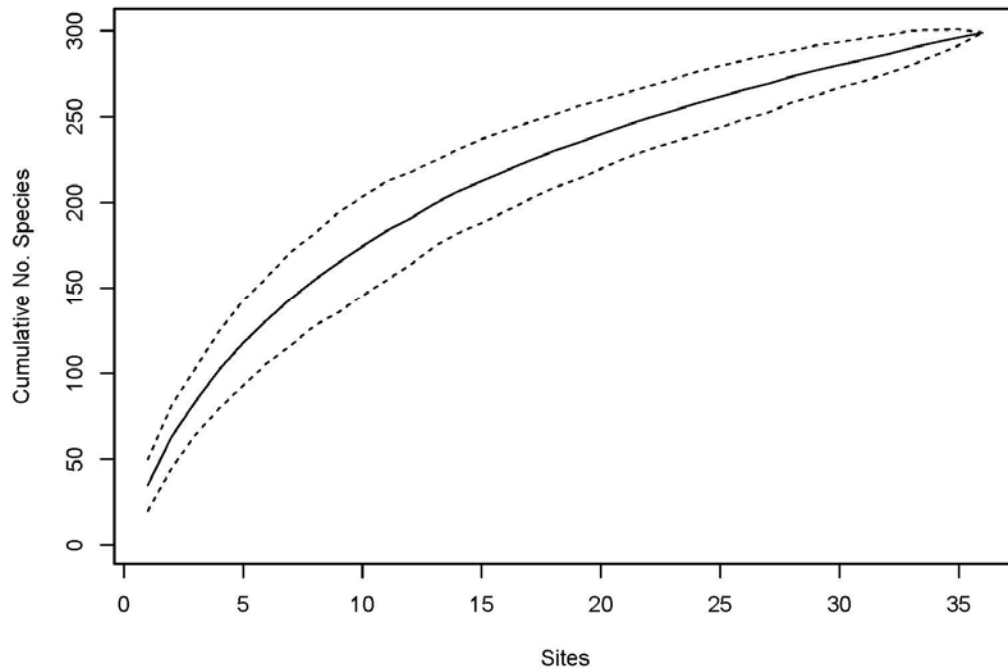
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**Figure 6 Species accumulation curve for the 36 quadrats formally assessed within the study area.**

The sampling sites were assessed to provide a list of the total flora occurring within the study area and a description of the vegetation structure. Data collected covered a range of environmental parameters including:

- Landform and habitat;
- Aspect;
- Soil colour and soil type;
- Rock type;
- Slope (angle);
- Percentage of bare ground, logs, twigs and leaves;
- Vegetation condition;
- Disturbance (caused by fire, clearing, grazing etc.);
- Age since fire;
- Broad floristic formation;
- Vegetation type description; and
- Height and percentage ground cover provided by individual plant taxa.

Other parameters recorded for each study site were:

- Study site number and date of assessment;
- Names of the botanists undertaking the assessment;
- Location description a waypoint - GPS coordinate (GDA94) using a handheld GPS; and
- Photograph number.

Vegetation condition for each of the study sites was determined using a recognised rating scale (based on Keighery 1994, see Appendix 1).



### 2.3.3 Targeted Surveys for Conservation Significant Species

Targeted searches for species of conservation significance were completed within the study area. Ground truthing provided an opportunity to record opportunistic locations for Threatened and Priority listed flora and undertake closer examination of specific landforms where conservation significant flora would be expected to occur.

### 2.3.4 Weed Survey and Mapping

Introduced species were recorded from the study sites assessed within the study area. Opportunistic collections were also made while moving throughout the study area, with targeted weed searches completed in high moisture habitats.

### 2.3.5 Floristic Analysis

A multivariate statistical analysis of the floristic quadrat data (36 quadrats) was completed to assist in understanding the vegetation-habitat relationships within the study area. Statistical analysis of quadrat data can support delineation of vegetation types within the study area, and provide comparison against locally significant communities (TECs and PECs) where quadrat data is available.

A two-way classification (Agglomerative Hierarchical Fusion) of the presence/absence quadrat data was carried out on the 298 taxa x 36 quadrat dataset using the program PATN (Belbin 2003). The flexible unweighted pair group method with arithmetic mean (UPGMA) classification strategy was used ( $B = -0.1$ ), together with the Bray-Curtis site similarity measure. The number of groups to be determined was set at 13. The primary output of the classification was in the form of a dendrogram (Appendix 2).

The results from the statistical analysis need to be appropriately analysed by an experienced botanist, and effects such as fire disturbance, ephemeral taxa, and spatial distribution of quadrats taken into consideration when interpreting the results. Plant taxa that occupy a range of vegetation types can obscure vegetation patterning and influence statistical outputs. It must be acknowledged that the results of multivariate statistical analysis may not always align with the delineated vegetation types; in these instances an explanation for the differences will be provided.

### 2.3.6 Vegetation Type Mapping

The classification of vegetation types within the study area shall follow the height, life form and density classes of Muir (1977) (see Appendix 3). This is largely a structural classification suitable for broader scale mapping, but taking all ecologically significant strata into account.

The description of vegetation types lead with the most dominant strata (based on percent cover) and flora species listed start with the most dominant (Table 2). Table 3 further describes and categorises these strata and gives examples of potential growth forms for each, e.g. over-storey (U), mid-storey (M) and under-storey (G) vegetation strata.

Vegetation types recorded within the study area are grouped according to 'broad floristic formation' (refer to Table 2). A broad floristic formation describes the dominant growth form, cover and height as well as the dominant land cover genus for the dominant stratum (DEH 2003).

The vegetation type mapping utilised high-resolution aerial photography of the entire study area at a scale of 1:10,000, with definition of vegetation polygons based on

contrasting shading patterns. Ground-truthing of the study area was completed during the survey with vegetation descriptions made within selected vegetation polygons to confirm dominant structural layers and associated plant taxa. The 36 study sites and over 50 relevé plots were overlaid on the aerial photography, and associated flora and vegetation data was used to provide vegetation type descriptions for individual polygons defined.

### 2.3.7 Vegetation Type Coding

A vegetation code was applied to each vegetation type. This code is comprised of the dominant landform on which the vegetation type occurs and the dominant plant taxa in each vegetation stratum.

### 2.3.8 Vouchering

At least one voucher specimen was taken for each species collected to verify identification. Taxonomy was completed by Dr Jerome Bull at the Western Australian Herbarium (WAH) with use made of the WAH for confirmation of species identification.

**Table 2** Vegetation type descriptions (based on the methods used under the National Vegetation Information System, Department of the Environment 2003).

Description	Species	Cover	Soils	Landscape Position	Example
Broad Floristic Formation	The one dominant genus name for the dominant stratum, e.g. <i>Acacia</i>	One cover class for the dominant stratum, e.g. Low Woodland. If two strata have the same cover range, the taller stratum is listed	Not relevant	Not relevant	<i>Acacia</i> Low Woodland
Vegetation Type (describe three strata - refer Table 3)	Up to three dominant species listed for each stratum, e.g. <i>Acacia incurvaneura</i> , <i>Acacia pruinocarpa</i> and <i>Acacia pteraneura</i>	One cover class code for each stratum, e.g. Low Open Woodland, Open Shrubland, Low Open Shrubland	State soil colour and type, e.g. red sandy loam	Include the landscape position, e.g. stony plain	Low Open Woodland of <i>Acacia incurvaneura</i> , <i>A. pruinocarpa</i> & <i>A. pteraneura</i> over Open Shrubland of <i>Eremophila spathulata</i> over Low Open Shrubland of <i>Ptilotus schwartzii</i> , <i>P. obovatus</i> & <i>Solanum lasiophyllum</i> on red sandy loam on stony plains

**Table 3** Vegetation stratum levels (modified from Department of the Environment 2003).

Stratum Description	Example Growth Forms
<b>Over-storey (U)</b>	
Tallest tree sub-stratum; for forests and woodlands this will generally be the dominant stratum	Trees, tree mallee, and vines (mallee shrubs)
Sub-canopy layer; second tree layer	
Sub-canopy layer; third tree layer	
<b>Mid-storey (M)</b>	
Tallest shrub layer	Shrubs, low trees, mallee shrubs, grass-trees, tree-ferns, cycads, palms, and vines (low shrubs, tall grasses, tall forbs, tall sedges)
Second shrub layer	
Third shrub layer	
<b>Under-storey (U)</b>	
Tallest ground species	Grasses, forbs, sedges, rushes, lichens, epiphytes, low shrubs, ferns, bryophytes, cycads, grass-trees, and vines
Other ground species	

### 2.3.9 Field Survey Constraints

The EPA Technical Guidance for Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (EPA 2016a) list seven potential limitations that field surveys may encounter. These limitations are addressed in Table 4.

**Table 4** Relevance of limitations, as identified by EPA (2016a), to the flora and vegetation survey.

Constraint	Relevance
Availability of contextual information at a regional and local scale	At least 15 flora and vegetation surveys have previously been undertaken in close proximity to the study area (within the Collie Coal Basin), providing excellent contextual information on the surrounding area.
Proportion of flora recorded and/or collected, any identification issues	It is likely that a large proportion of the total flora occurring within the study area has been collected, given the intensity of the spring field survey. The seasonal conditions at the time of survey were rated as <i>good</i> .
Survey timing, rainfall, season of survey	Rainfall for the three months prior to the late October 2019 field survey totalled 224 mm, compared to the long-term average of 302mm for the same period. While comparably low, the seasonal rainfall resulted in <i>good</i> seasonal conditions at the time of the late spring 2019 field survey. Good flowering was observed during the survey; however orchids were present in low numbers and some taxa were noticeably absent. The supplementary field survey was undertaken in mid-February 2022 and outside of the recommended Spring period, due to a small eastern extension of the project polygon. The extension represented a small increase to the area previously surveyed in Spring 2019, with similar vegetation encountered.
Disturbance that may have affected the results of the survey such as fire, flood or clearing	There were no disturbances recorded within the study area that influenced survey outcomes. Disturbances within the study area included recent fire, historical mining and mine rehabilitation activities, native forest logging, softwood plantations, and access tracks. Disturbances did not impact on the ability to complete the field survey.
Was the appropriate area fully surveyed (effort and extent)	Three botanists spent five field days covering the entire study area. A total of 36 quadrats along with numerous relevé sites were assessed within the study area. This represented an extensive survey effort.

Constraint	Relevance
Access restrictions within the survey area	The study area was accessed by vehicle and on foot, noting that vegetation mapping was facilitated by high-resolution aerial photography.
Competency/experience of the team carrying out the survey, including experience in the bioregion surveyed	The botanists working on the survey both have over 40 years' combined experience working in the region, and have completed numerous surveys in close proximity to the study area.

### 2.3.10 Assessment of Conservation Significance

The conservation significance of flora, fauna and ecological communities are classified at a Commonwealth, State and Local level on the basis of various Acts and Agreements, including:

Commonwealth Level:

- EPBC Act: The Department of Environment and Energy (DoEE) lists Threatened Flora, Fauna and Ecological Communities, which are determined by the Threatened Species Scientific Committee according to criteria set out in the Act. The Act lists flora that are considered to be of conservation significance under one of six categories (Appendix 4).

State Level:

- BC Act: At a State level native flora and fauna species are protected under the BC Act. A number of species are assigned an additional level of conservation significance based on a limited number of known populations and the perceived threats to these locations.
- DBCA Priority list: DBCA produces a list of Priority species and PECs that have not been assigned statutory protection under the BC Act. Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added under Priorities 1, 2 or 3. Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been removed from the threatened species list for other taxonomic reasons, are placed in Priority 4. These species require regular monitoring (see Appendix 5). The list of PECs identifies those that need further investigation before nomination for TEC status at a State level.

Local Level:

- Species may be considered of local conservation significance because of their patterns of distribution and abundance. Although not formally protected by legislation, such species are acknowledged to be in decline as a result of threatening processes, primarily habitat loss through land clearing.

## 3.0 RESULTS

### 3.1 Desktop Review

#### 3.1.1 Previous Baseline Flora Surveys

The study area lies within the Darling Botanical District of the South-Western Botanical Province as recognised by Diels (1906) and later developed by Gardner (1942) and Beard (1979, 1980).

Historical broad scale vegetation mapping in the Collie area has been completed by:

- Smith (1974) in the Collie area (1:250,000);
- Heddle *et al.* (1980) in the System 6 area; Perth, Pinjarra and Collie areas (1:250,000); and
- Mattiske and Havel (1998) in the vegetation mapping for the Regional Forest Agreement.

As a result of mining in the Collie area a number of more intensive baseline flora and vegetation surveys have been completed in the region (Table 5). In 2006, Mattiske Consulting (2006) completed a single season flora and vegetation survey of the Ewington area. Onshore Environmental also completed a two-season survey of the Ewington North study area in 2016. Other larger scale baseline surveys have previously been completed at the West Ewington and Stockton Leases (Bennett Environmental Consulting 2009), and Proposed Expansion at Ewington Mine Site (Bennett Environmental Consulting 2008a).

The above surveys are summarised in Table 5.

Table 5 Summary of background information and results for previous flora and vegetation surveys completed in close proximity to, the study area.

Survey Name	Survey Timing	Vegetation types	Taxon Summary	Conservation Significant Flora Recorded
Report on a Flora and Vegetation Survey of the Premier Coal Mine 2015 Clearing Area, Collie, Western Australia (Wildy 2015)	3-6, 28-29 October, 17, 26 November 2011	9 vegetation types None aligned with TECs or PECs	240 taxa from 50 families and 141 genera 43 weeds	None recorded
Flora and Vegetation Proposed Expansion at Ewington Mine Site (Bennett Environmental Consulting 2008a)	10-14 October, 25 October, 10-12 December	25 vegetation types None aligned with TECs or PECs	431 taxa from 64 families and 217 genera 43 weeds	<i>Synaphea petiolaris</i> subsp. <i>simplex</i> (P2), <i>Pultenaea skinneri</i> (P4)
Ewington Northern Extension Level 2 Flora and Vegetation Survey (Onshore Environmental 2016a)	29 and 30 September 2015 15 and 16 June 2016	10 vegetation types None aligned with TECs or PECs	178 taxa from 43 families and 110 genera	None recorded
Flora and Vegetation of West Ewington and Stockton Leases (Bennett Environmental Consulting 2009)	21 September, 10-18 November 2008	34 vegetation types None aligned with TECs or PECs	478 taxa from 59 families and 207 genera 33 weed species	<i>Hemigenia rigida</i> (P1), <i>Leucopogon extremus</i> <sup>3</sup> (P2), <i>Calytrix pulchella</i> (P3), <i>Synaphea decumbens</i> (P3), <i>Synaphea hians</i> (P3), <i>Grevillea ripicola</i> (P4), <i>Pultenaea skinneri</i> (P4)
Flora and Vegetation Survey of the Proposed Waste Dump Expansion Area, Ewington II (Mattiske Consulting 2006)	December 2005	5 vegetation types None aligned with TECs or PECs	151 taxa from 38 families and 96 genera 6 weeds	None recorded
Groundwater Dependent Vegetation, Ewington Creek (Onshore Environmental 2016b)	29-31 March 2016	38 vegetation types None aligned with TECs or PECs	Not collated	<i>Grevillea ripicola</i> (P4)

<sup>3</sup> Previously known as *Leucopogon* sp. Collie E.M. Bennett BUC063

Survey Name	Survey Timing	Vegetation types	Taxon Summary	Conservation Significant Flora Recorded
Level 2 Flora and Vegetation Survey, Muja South (Onshore Environmental 2015)	20-27 October 2014	19 vegetation types None aligned with TECs or PECs	553 taxa from 72 families and 253 genera 70 weeds	<i>Caladenia leucochila</i> (T), <i>Hemigenia rigida</i> (Priority 1), <i>Leucopogon extremus</i> (P2), <i>Synaphea decumbens</i> (Priority 3), <i>Synaphea petiolaris</i> subsp. <i>simplex</i> (P2), <i>Schoenus pennisetis</i> (P3), <i>Eucalyptus rudis</i> subsp. <i>cratyantha</i> (P4), <i>Pultenaea skinneri</i> (P4), <i>Rumex drummondii</i> (P4), <i>Acacia semitrullata</i> (P4)
Flora and Vegetation of Proposed Development at Griffin Coal Mine Muja South Collie (Bennett Environmental Consulting 2008b)	1 <sup>st</sup> -10 <sup>th</sup> September 2005, 26 <sup>th</sup> -29 <sup>th</sup> October 2006	28 vegetation types None aligned with TECs or PECs	553 taxa from 72 families and 254 genera 78 weeds	<i>Caladenia leucochila</i> <sup>4</sup> , <i>Leucopogon extremus</i> (P2) <sup>5</sup> , <i>Synaphea petiolaris</i> subsp. <i>simplex</i> (P2), <i>Acacia semitrullata</i> (P4), <i>Synaphea decumbens</i> (P3), <i>Eucalyptus rudis</i> subsp. <i>cratyantha</i> (P4), <i>Pultenaea skinneri</i> (P4)
Level 2 Flora and Vegetation Survey Proposed Muja South Conveyor Corridor (Onshore Environmental 2013a)	20 <sup>th</sup> October 2012, 21 <sup>st</sup> March 2013	13 vegetation types None aligned with TECs or PECs	144 taxa from 33 families and 90 genera 9 weeds	<i>Synaphea hians</i> (P3)
Level 2 Flora and Vegetation Survey Muja South Rail Loop and Product Handling Facilities (Onshore Environmental 2013b)	27 <sup>th</sup> November 2008, 19 <sup>th</sup> October 2012	9 vegetation types None aligned with TECs or PECs	221 taxa from 43 families and 121 genera 22 weeds	<i>Dillwynia</i> sp. Capel (P. A. Jurjevich 1771) (P1), <i>Acacia semitrullata</i> (P4)
Vegetation and Flora of Proposed Rail Loop and Product Handling Facilities Muja South Project (Bennett Environmental Consulting 2006a)	27 <sup>th</sup> November 2008	3 vegetation types None aligned with TECs or PECs	192 taxa from 46 families and 117 genera 18 weeds	<i>Acacia semitrullata</i> (P4)
Level 2 Flora and Vegetation Assessment of Crown Land in Buckingham Way, Collie (Ekologia 2010)	23 <sup>rd</sup> July, 15 <sup>th</sup> September, 5 <sup>th</sup> October 2010	2 vegetation types None aligned with TECs or PECs	119 taxa	None
Flora and Vegetation of Boyup Basin, Wilga (Bennett Environmental Consulting 2006b)	1 <sup>st</sup> -8 <sup>th</sup> September 2005	13 vegetation types None aligned with TECs or PECs	191 taxa from 42 families and 107 genera 13 weeds	<i>Melaleuca incana</i> subsp. <i>Gingilup</i> (N. Gibson & M. Lyons 593) (P2)

<sup>4</sup> Originally recorded at *Caladenia* sp. nov, then *Caladenia lodgeana*, then *Caladenia* sp. Collie (E. Bennett s.n. PERTH 08396051)

<sup>5</sup> Previously known as *Leucopogon* sp. Collie (E.M. Bennett BUC 063)

Survey Name	Survey Timing	Vegetation types	Taxon Summary	Conservation Significant Flora Recorded
Targeted Flora Survey <i>Caladenia</i> sp. Collie (E. Bennett s.n. PERTH 08396051) (Onshore Environmental 2012)	12 <sup>th</sup> September -9 <sup>th</sup> October 2012	-	-	<i>Caladenia leucochila</i> (T)
Regional Targeted Flora Survey <i>Caladenia</i> sp. Collie (E. Bennett s.n. PERTH 08396051) (Onshore Environmental 2014)	11 <sup>th</sup> -18 <sup>th</sup> September, 23-24 <sup>th</sup> September 2014	-	-	<i>Caladenia leucochila</i> (T)



### 3.1.2 Threatened Flora listed under the EPBC Act

A search of the EPBC Act Protected Matters database was undertaken for a 10 km radius around the study area (DoEE 2019). Three Threatened Flora taxa were listed under the EPBC Act within the search radius; *Caladenia leucochila*, *Diuris micrantha* and *Jacksonia velveta*.

### 3.1.3 Threatened Flora listed under the IUCN Red List

A search of the International Union for Conservation of Nature (IUCN) database (IUCN 2019) determined that no Threatened Flora taxon was likely to occur within the study area.

### 3.1.4 Threatened Flora listed under the BC Act

Four Threatened Flora taxa were identified from the DBCA rare flora database search (DBCA 2019) as occurring within a 20 km radius of the study area; *Caladenia leucochila*, *Commersonia erythrogyna*, *Drakaea confluens* and *Jacksonia velveta*.

### 3.1.5 Priority Flora recognised by the DBCA

The DBCA rare flora database search (DBCA 2019a) identified 24 Priority flora taxa as potentially occurring within a 20 km radius of the study area (Table 6). It was determined that three of these taxa were considered *likely* to occur (as per criteria set out in Table 1) within the study area based on occurrence of habitat and proximity of previous records (Table 6).

### 3.1.6 TECs listed under State and Federal Legislation

A search of the EPBC Act Protected Matters database (DoEE 2019) confirmed there were no federal listed TECs previously recorded within, or adjacent to, the study area. Similarly, a search of the DBCA ecological community database (DBCA 2019b) confirmed there were no state listed TEC records for the immediate study area.

### 3.1.7 PECs recognised by DBCA

A search of DBCA's ecological community database (DBCA 2019b) confirmed that there were no PECs occurring within a 10 km radius of the study area.

Table 6 Significant flora species recorded in or around the survey area from the federal and state database searches, literature and local knowledge. SCC - State Conservation Code, FCC - Federal Conservation Code

Taxon	SCC	FCC	Habitat	Previously recorded	Suitable habitat present	Likelihood in study area
<i>Acacia semitrullata</i>	4		Sandplains, swampy areas	No	Yes	Likely
<i>Adenanthos cygnorum</i> subsp. <i>chamaephyton</i>	3		Grey sand, lateritic gravel	No	Yes	Unlikely
<i>Caladenia leucochila</i>	T	EN	Undulating lateritic hills	No	Yes	Possible
<i>Caladenia validinervia</i>	1		Sandy gravelly soil in Jarrah-Marri forest	No	Yes	Unlikely
<i>Calothamnus graniticus</i> subsp. <i>leptophyllus</i>	4		Clay over granite, lateritic soils, hillsides	No	No	Unlikely
<i>Calytrix pulchella</i>	3		Grey or white sand over laterite. Ridges, flats	No	Yes	Possible
<i>Commersonia erythrogyna</i>	T	EN	Lateritic ridge with Jarrah-Marri woodland	No	Yes	Unlikely
<i>Diuris micrantha</i>	T	VU	Dark grey to black sandy clay loam in winter-wet depressions / swamps	No	Yes	Unlikely
<i>Drakaea confluens</i>	T	EN	White-grey sand	No	Yes	Possible
<i>Eryngium</i> sp. <i>Ferox</i> (G. J. Keighery 16034)	3		Seasonally wet areas, brown clay	No	Yes	Unlikely
<i>Eucalyptus rudis</i> subsp. <i>cratyantha</i>	4		Loam. Flats, hillsides	No	Yes	Possible
<i>Grevillea prominens</i>	3		Gravelly loam, creeklines	No	Yes	Unlikely
<i>Grevillea ripicola</i>	4		Swampy flats, granite outcrops, along watercourses	No	No	Unlikely
<i>Hypolaena robusta</i>	4		River edge, Collie Basin	No	No	Unlikely
<i>Jacksonia velveta</i>	T	EN	Laterite, on slight slopes in low woodland areas	No	Yes	Possible
<i>Juncus meianthus</i>	3		Black sand or sandy clay; creeks, seepage areas	No	No	Unlikely
<i>Lasiopetalum cardiophyllum</i>	4		Flats, hillslopes	No	Yes	Unlikely
<i>Leucopogon extremus</i>	2		Low-lying, seasonally wet sites on sandy loam or sandy clay	No	Yes	Likely
<i>Logania sylvicola</i>	2		Mid-slope of laterite rises with brown clay to clayey sand	No	Yes	Possible
<i>Meionectes tenuifolia</i>	3		Wetland margins, swamps	No	Yes	Unlikely
<i>Pultenaea skinneri</i>	4		Winter-wet depressions	No	Yes	Likely
<i>Sphaerolobium benetectum</i>	2		Ridges, swamps, undulating rises	No	Yes	Possible
<i>Stylidium acuminatum</i> subsp. <i>acuminatum</i>	2		Clayey sand over laterite; hillslopes, ridges and valleys	No	Yes	Unlikely
<i>Stylidium lepidum</i>	3		Gravelly sand, loam or clay, winter-wet depressions	No	Yes	Unlikely

Taxon	SCC	FCC	Habitat	Previously recorded	Suitable habitat present	Likelihood in study area
<i>Stylidium rhipidium</i>	3		Wet creek flats, swamps, granite outcrops	No	Yes	Possible
<i>Synaphea decumbens</i>	3		Sand over laterite	No	Yes	Possible
<i>Synaphea hians</i>	3		Sandy soils, rises	No	Yes	Possible
<i>Synaphea petiolaris</i> subsp. <i>simplex</i>	2		Flats, winter-wet areas	No	Yes	Unlikely
<i>Tetratheca parvifolia</i>	3		Near river bank, heavy alluvial soil	No	No	Unlikely

## 3.2 Flora Species

A total number of 363 plant taxa (including varieties and subspecies) from 54 families and 173 genera were recorded from the study area (Table 7, Appendix 6). Species representation was greatest among the Fabaceae, Myrtaceae, Proteaceae, Asteraceae, Cyperaceae and Stylidiaceae families (Table 7). The most speciose genera were *Acacia* and *Stylidium* (17 taxa), followed by *Hibbertia* (11 taxa), *Gompholobium* (9 taxa), *Banksia*, *Lomandra* and *Styphelia* (8 taxa each).

Table 7 Statistics for total flora recorded from the study area.

Overview	No. Taxa
Families	54
Genera	173
Taxa (species, subspecies, varieties)	363
Native Taxa	338
Introduced Taxa	25
Threatened Flora	0
Priority Flora	2
Range Extensions	2
Speciose Families	No. Taxa
Fabaceae	50
Myrtaceae	35
Proteaceae	25
Cypeaceae	25
Asteraceae	24
Stylidiaceae	19
Asparagaceae	18
Ericaceae	16
Poaceae	16
Dilleniaceae	11
Goodeniaceae	10
Orchidaceae	10
Restionaceae	9
Haemodoraceae	9
Centrolepidaceae	7
Campanulaceae	7
Speciose Genera	No. Taxa
<i>Stylidium</i>	17
<i>Acacia</i>	17
<i>Hibbertia</i>	11
<i>Gompholobium</i>	9
<i>Banksia</i>	8
<i>Styphelia</i>	8
<i>Lomandra</i>	8
<i>Centrolepis</i>	7
<i>Hakea</i>	6
<i>Isolepis</i>	6
<i>Drosera</i>	5
<i>Calothamnus</i>	5
<i>Lepidosperma</i>	5
<i>Thysanotus</i>	5

### 3.3 Significant Flora

#### 3.3.1 Threatened Flora listed under the BC Act and EPBC Act

None of the 363 plant taxa recorded from the study area were gazetted as Threatened Flora (T) under the BC Act, or listed under the EPBC Act.

#### 3.3.2 Significant Flora

Two Priority 4 flora taxa were recorded from the study area; *Acacia semitrullata* and *Pultenaea skinneri* (Figure 7). These taxa are described further in Table 8 and Appendix 7.

Table 8 Description of Priority flora species recorded within the study area.

Photograph	Description and Occurrence in Study Area
<p data-bbox="293 695 805 730"><i>Acacia semitrullata</i> (Priority 4)</p> 	<p data-bbox="805 730 1336 1287"><i>Acacia semitrullata</i> is a slender, erect, pungent shrub to 1m high with slender orange branches. Persistent prickly stipules occur at the base of each phyllode. Phyllodes are narrowly kite-shaped or triangular, with a gland on the upper angle, 5-10mm long and 1-2mm wide, with a prominent midrib, spreading at right angles to stem or slightly bent backwards. The inflorescence occurs with 1 head in each axil on densely hairy stalks to 8mm long; head are globular, flowers are cream to white and occur between May and October. Pods are reddish-brown, cylindrical, up to 75mm long, appressed hairy and longitudinally ribbed. Plants are found in white to grey sand sometimes over laterite and also in clay typically in damp to swampy areas. Within the study area it was recorded as approximately 150 plants from 42 spot locations (one population) across four vegetation types predominantly on lower sandy slopes in the southeast corner of the study area (Figure 7).</p>
<p data-bbox="293 1293 805 1329"><i>Pultenaea skinneri</i> (Priority 4)</p> 	<p data-bbox="805 1329 1336 1793"><i>Pultenaea skinneri</i> is a shrub to 2m high with narrowly ovate to heart-shaped leaves 4-10mm long and 1.5-3.5mm wide, the margins of which are slightly recurved and the apex spine tipped. The inflorescence is of dense terminal heads surrounded by overlapping spine tipped bracts which are persistent. Flowers are yellow to orange and red to brown, with very short stalks flowering between July and September. The pod is 10-12mm long and 5-7mm wide and very sticky. It grows in sandy or clayey soils in winter wet depressions. Within the study area it was recorded as approximately 50 plants from seven spot locations (one population) across a single vegetation type on grey sand / sandy loam on lower slopes and flats in the northeast sector of the study area (Figure 7).</p>

### 3.3.3 Range Extensions

Two plant taxa recorded from the study area were considered to represent a range extension from their current known distribution; *Acacia trigonophylla* and *Aotus procumbens* (Figure 7).

*Acacia trigonophylla* is an erect, much-branched, pungent shrub, reaching between 1 m and 2.5 m in height. It is found in sandy granitic and lateritic soils associated with granite outcrops, hillslopes, and swamps. This species has previously been recorded from Serpentine to the north, Wagin to the east, and Frankland to the south. The recorded location within the study area represents a 100 km range extension west of the nearest record. PCL have confirmed that this taxon was introduced to the study area as part of the 1994, 1997 and 1999 rehabilitation seed mixes.

*Aotus procumbens* is an erect or spreading shrub reaching 0.5 m in height and flowering yellow, red and brown between August and September. It is found in sandy soils on winter-wet depressions. This species has previously been recorded from Bunbury, Boddington and Lake Grace. The recorded location within the study area represents a 50 km range extension to the east of the nearest record.

## 3.4 Introduced Flora

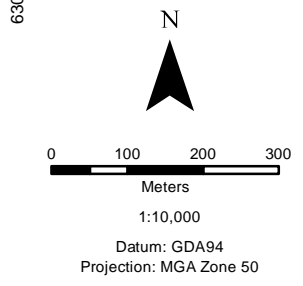
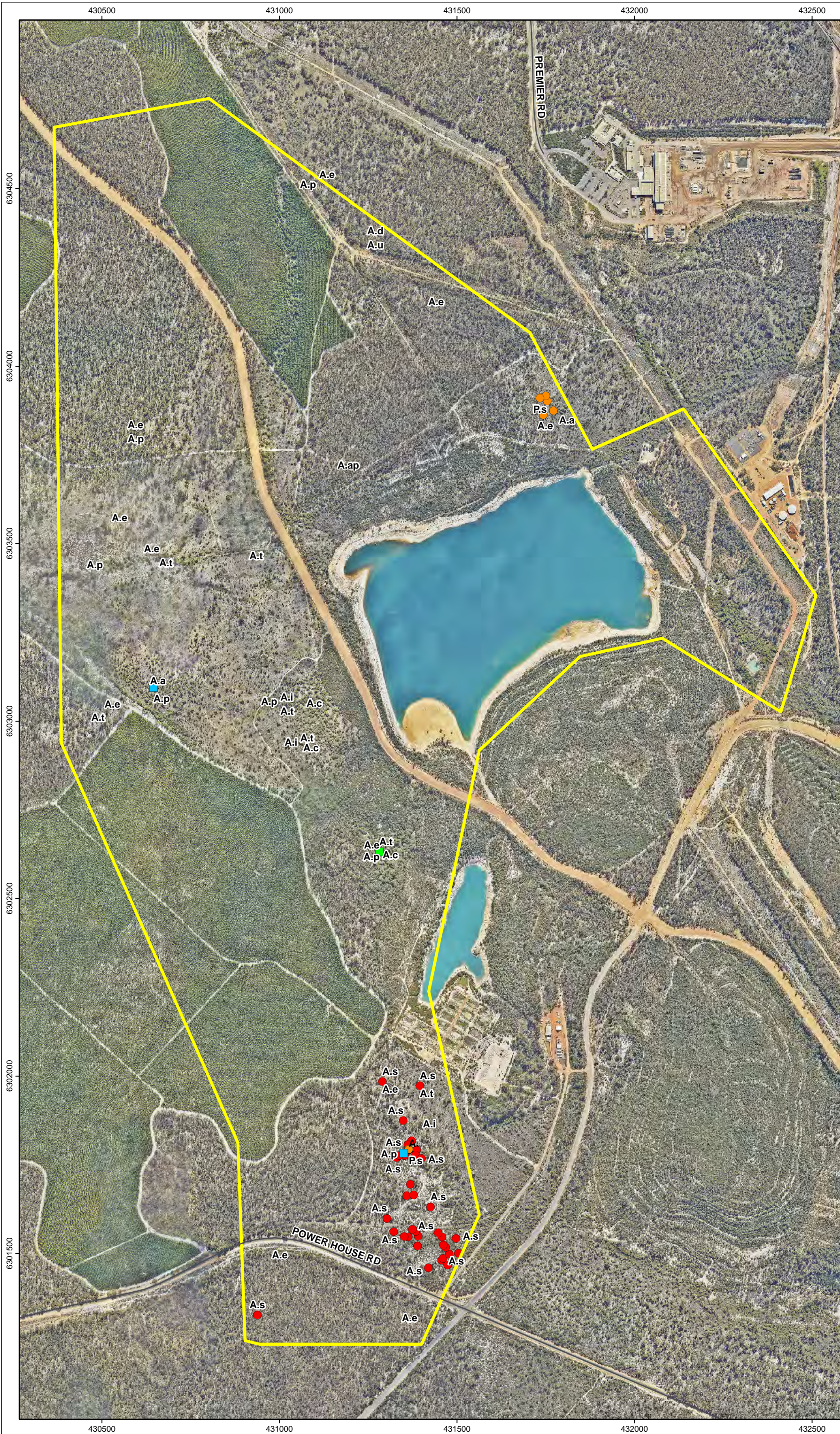
There were 25 introduced species recorded from the study area (Figure 8, Appendix 8). One of the weed taxa was listed as a Declared Pest under the BAM Act; *Asparagus asparagoides* (Bridal Creeper) - s22(2) (Exempt).

**FIGURE 7**

**Pit 7 Exploration Area  
Significant Flora**

**Legend**

- Study Area
- Significant Flora**
- Acacia semitrullata (A.s)
- Pultenaea skinneri (P.s)
- Range Extension**
- Aotus procumbens (A.p)
- Acacia trigonophylla (A.t)



Date: 19/12/2019  
 Status: Draft  
 Figure: 7  
 Sheet Size: A3  
 Internal Reference: PC\_Pit7\_SF  
 Drawn by: GSM  
 Requested by: DB

430500 431000 431500 432000 432500



# PREMIER COAL

## FIGURE 8

### Pit 7 Exploration Area

#### Introduced Flora

#### Legend

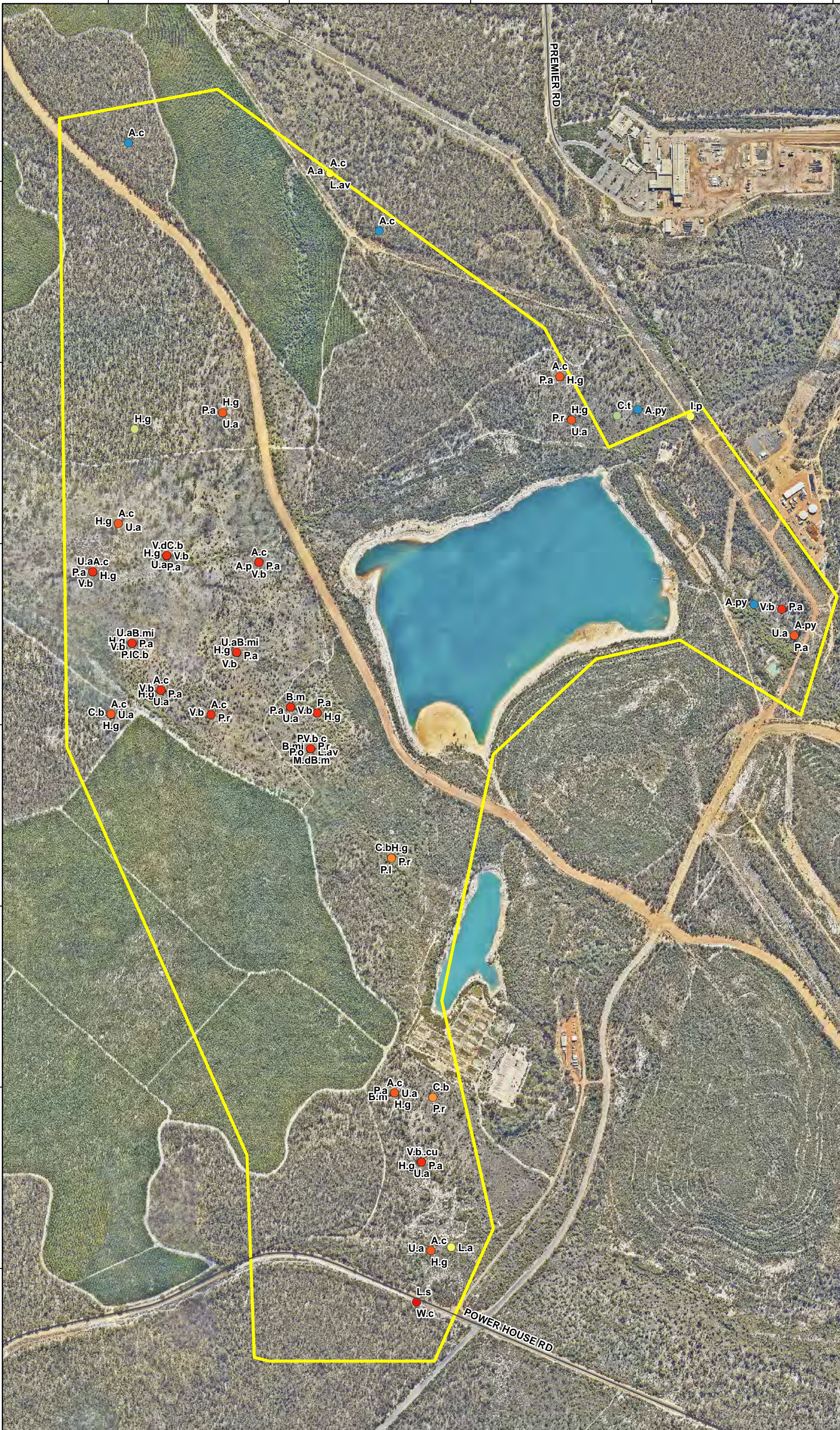
Study Area

#### Introduced Flora

- \*Acacia pycnantha (A.py)
- \*Aira caryophyllea (A.c)
- \*Aira cupaniana (A.cu)
- \*Aira praecox (A.p)
- \*Asparagus asparagoides (A.a)
- \*Briza maxima (B.m)
- \*Briza minor (B.mi)
- \*Conyza bonariensis (C.b)
- \*Cyperus tenellus (C.t)
- \*Disa bracteata (C.b)
- \*Hypochaeris glabra (H.g)
- \*Isoplepis proliferata (I.p)
- \*Lavandula stoechas (L.s)
- \*Lupinus angustifolius (L.a)
- \*Lysimachia arvensis (L.av)
- \*Monopsis debilis (M.d)
- \*Parentucellia latifolia (P.l)
- \*Pentameris airoides (P.a)
- \*Pinus radiata (P.r)
- \*Pseudognaphalium luteoalbum (P.l)
- \*Sonchus oleraceus (P.o)
- \*Ursinia anthemoides (U.a)
- \*Vellereophyton dealbatum (V.d)
- \*Vulpia bromoides (V.b)
- \*Wahlenbergia capensis (W.c)

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### 3.5 Threatened Ecological Communities

The field survey confirmed that no TECs occur within or adjacent to the study area.

### 3.6 Priority Ecological Communities

The vegetation communities occurring within the Collie Basin are relatively well understood and there are no known PECs occurring within a 10 km radius of the study area. Furthermore, none of the 13 vegetation types described and mapped from the study area were found to be aligned with any PECs documented from the South West.

### 3.7 Vegetation

A total of 13 vegetation types classified as ten broad floristic formations and occurring on six broad landforms were described and mapped from the study area (Figure 9, Table 9). Vegetation was characterised by Sheoak and Jarrah Forest on lateritic hill crests grading into Jarrah Forest on hill slopes, with subtle changes in understorey composition reflecting increasing depth a grey sand progressively downslope. The canopy becomes more open on the lower slopes and adjacent flats forming Low Woodland and comprising Jarrah with Moonah (*Melaleuca preissiana*). Moonah becomes the dominant on the seasonally wet flats and drainage lines where it forms a forest cover in localised areas with dense understorey comprising wetland species including *Astartea scoparia*, *Melaleuca incana* subsp. *incana*, *Kunzea recurva*, *Hakea varia* and *Cyathochaeta avenacea*.

A species by site matrix and raw data for the 36 study sites is presented in Appendices 9 and 10 respectively. The latest EPA technical guidelines (EPA 2016a) recommend that a minimum of three quadrats should be sampled in each vegetation unit. It is noted that one vegetation type mapped within the study area was sampled by one quadrat, and four vegetation types were sampled by two quadrats. This has not impacted on the integrity of the survey, with these five vegetation types being small localised units. The vegetation type supporting one quadrat was <1 ha in area, and the units supporting two quadrats range from 1.3 ha to 8.7 ha in area (Table 9).

Table 9 Vegetation types mapped within the study area.

Code	Broad Floristic Formation	Vegetation Description	Quadrats	Condition	Area (ha)	% of Study Area
		<b>Hill Crests</b>				
HC AfEm BoHamHr Bg	Allocasuarina Forest	Forest of <i>Allocasuarina fraseriana</i> and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> over Dwarf Scrub D of <i>Bossiaea ornata</i> , <i>Hibbertia amplexicaulis</i> and <i>Hibbertia vaginata</i> , with Open Low Woodland B of <i>Allocasuarina fraseriana</i> , <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Banksia grandis</i> on grey sand on hill crests and upper hill slopes	PC02, PC06, PC08	Very Good	38.01	9.81
		<b>Hill Slopes</b>				
HS Em XgBoBd	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> Dwarf Scrub D of <i>Xanthorrhoea gracilis</i> , <i>Bossiaea ornata</i> and <i>Banksia dallaneyi</i> ( <i>Trymalium ledifolium</i> ) on grey sand on upper hill slopes	PC20	Very Good	1.34	0.35
		<b>Lower Slopes</b>				
LS Em Xp Bo	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (+/- <i>Allocasuarina fraseriana</i> ) over Low Scrub A of <i>Xanthorrhoea preissii</i> over Dwarf Scrub D of <i>Bossiaea ornata</i> (mid slopes) or <i>Bossiaea eriocarpa</i> (lower slopes) on brown loamy sand on mid and lower hill slopes	PC04, PC12, PC14	Excellent	50.15	12.95
LS Em BeCfHr XpXoPI	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> ( <i>Allocasuarina fraseriana</i> ) over Low Heath D of <i>Bossiaea eriocarpa</i> , <i>Calytrix flavescens</i> and <i>Hibbertia vaginata</i> ( <i>Babingtonia camphorosmae</i> , <i>Styphelia erubescens</i> ), with Open Scrub of <i>Xanthorrhoea preissii</i> , <i>Xylomelum occidentale</i> and <i>Persoonia longifolia</i> ( <i>Leptospermum erubescens</i> , <i>Allocasuarina humilis</i> ) on grey sand on lower slopes	PC10, PC26, PC30, PC32, PC34	Very Good	15.51	4.00
LS EwEd XpHpKg BeHa	Eucalyptus Woodland	Tree Mallee of <i>Eucalyptus decipiens</i> subsp. <i>decipiens</i> over Open Low Scrub A of <i>Xanthorrhoea preissii</i> , <i>Hakea prostrata</i> and <i>Kunzea glabrescens</i> ( <i>Acacia saligna</i> ) over Open Dwarf Scrub D of <i>Bossiaea eriocarpa</i> and <i>Hypocalymma angustifolium</i> on brown sand on lower slopes	PC18, PC33	Good	2.51	0.65
LS Ep Kg BiBa	Eremaea Heath B	Heath B of <i>Eremaea pauciflora</i> with Scrub of <i>Kunzea glabrescens</i> and Open Low Woodland A of <i>Banksia ilicifolia</i> and <i>Banksia attenuata</i> on grey deep sand on sandy lower slopes	PC24, PC25	Good	8.68	2.24
LS Db MpEmNf KgKr PeAoHa	Dasypogon Low Heath D	Low Heath D of <i>Dasypogon bromeliifolius</i> with Open Low Woodland A of <i>Melaleuca preissiana</i> , <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Nuytsia floribunda</i> , Open Scrub of <i>Kunzea glabrescens</i> and <i>Kunzea recurva</i> , and Open Dwarf Scrub C of <i>Pericalymma ellipticum</i> var. <i>ellipticum</i> , <i>Adenanthos obovatus</i> and <i>Hypocalymma angustifolium</i> on grey sand on lower slopes	PC16, PC31, PC36	Good	3.88	1.00
		<b>Sandy Flats</b>				


Code	Broad Floristic Formation	Vegetation Description	Quadrats	Condition	Area (ha)	% of Study Area
SF MpNfEm Xp BeHaCf	Melaleuca Low Woodland A	Low Woodland A of Melaleuca preissiana, Nuytsia floribunda and Eucalyptus marginata subsp. marginata over Open Scrub of Xanthorrhoea preissii over Open Dwarf Scrub C of Bossiaea eriocarpa, Hypocalymma angustifolium, Allocasuarina humilis and Calytrix flavescens over Open Dwarf Scrub D of Dasypogon bromeliifolius on grey sand on sandy flats	PC13, PC15, PC22	Very Good	16.86	4.35
		<b>Drainage Flats</b>				
DF DbHa Mp Ao	Dasypogon Dwarf Scrub D	Dwarf Scrub D of Dasypogon bromeliifolius and Hypocalymma angustifolium with Open Low Woodland A of Melaleuca preissiana and Open Dwarf Scrub C of Adenanthos obovatus (Kunzea recurva) on grey loamy sand on open drainage flats	PC05, PC07, PC17	Very Good	35.76	9.23
		<b>Wetland</b>				
WE Mp Ha Pa	Melaleuca Forest	Forest of Melaleuca preissiana over Low Heath D of Hypocalymma angustifolium over Open Tall Sedges of Tremula tremulina on grey clay on wetland	PC19, PC27, PC28, PC35	Very Good	17.82	4.60
WE Ha PaCa MpEr	Hypocalymma Dwarf Scrub D	Dwarf Scrub D of Hypocalymma angustifolium over Open Tall Sedges of Tremula tremulina and Cyathochaeta avenacea with Open Low Woodland A of Melaleuca preissiana and Eucalyptus rudis subsp. rudis, Open Scrub of Taxandria linearifolia and Hakea varia, and Open Low Scrub B of Astartea scoparia, Taxandria linearifolia and Melaleuca incana subsp. incana on grey clay / clayey sand on wetland	PC01, PC09, PC29	Very Good	4.06	1.05
WE Pa PeAoHa Mp	Tremula Tall Sedges	Tall Sedges of Tremula tremulina with Dwarf Scrub C/D of Pericalymma ellipticum, Adenanthos obovatus and Hypocalymma angustifolium, Open Low Woodland A/B of Melaleuca preissiana, and Open Scrub of Xanthorrhoea preissii, Kunzea glabrescens and Kunzea recurva on grey clayey sand on wetland	PC21, PC23	Very Good	2.92	0.75
		<b>Minor Drainage Line</b>				
MI Mp AsMiHv Ca	Melaleuca Low Woodland A	Low Woodland A of Melaleuca preissiana over Low Scrub B of Astartea scoparia, Melaleuca incana subsp. incana and Hakea varia over Very Open Low Sedges of Cyathochaeta avenacea on cream / grey silty clay loam narrowly incised minor drainage lines	PC03, PC11	Very Good	3.51	0.91
		<b>Cleared</b>			2.60	0.67
		<b>Plantation (Pine Trees)</b>			76.36	19.72
		<b>Powerline Corridors</b>			1.67	0.43
		<b>Native Rehabilitation (post-mining)</b>			51.90	13.40
		<b>Roads</b>			9.74	2.51
		<b>Water Filled Mining Voids</b>			44.01	11.36

**Legend**


 Study Area

**Vegetation Types**


**Hillcrest**


 HC AfEm BoHamHr Bg Forest of Allocasuarina fraseriana and Eucalyptus marginata subsp. marginata over Dwarf Scrub D of Bossiaea ornata, Hibbertia amplexicaulis and Hibbertia vaginata, with Open Low Woodland B of Allocasuarina fraseriana, Eucalyptus marginata subsp. marginata and Banksia grandis on grey sand on hill crests and upper hill slopes


**Hill Slope**


 HS Em XgBoBd Forest of Eucalyptus marginata subsp. marginata Dwarf Scrub D of Xanthorrhoea gracilis, Bossiaea ornata and Banksia dallaneyi (Trymalium ledifolium) on grey sand on upper hill slopes


**Lower Slopes**

 LS Ep Kg BiBa Heath B of Eremaea pauciflora with Scrub of Kunzea glabrescens and Open Low Woodland A of Banksia ilicifolia and Banksia attenuata on grey deep sand on sandy lower slopes


 LS EwEd XpHpKg BeHa Woodland of Eucalyptus wandoo (±Tree Mallee of Eucalyptus decipiens subsp. decipiens) over Open Low Scrub A of Xanthorrhoea preissii, Hakea prostrata and Kunzea glabrescens (Acacia saligna) over Open Dwarf Scrub D of Bossiaea eriocarpa and Hypocalymma angustifolium on brown sand on lower slopes

 LS Em BeCfHr XpXoPI Forest of Eucalyptus marginata subsp. marginata (Allocasuarina fraseriana) over Low Heath D of Bossiaea eriocarpa, Calytrix flavescens and Hibbertia vaginata, with Open Scrub of Xanthorrhoea preissii, Xylomelum occidentale and Persoonia longifolia on grey sand on lower slopes


 LS Db MpEmNf KgKr PeAoHa Low Heath D of Dasypogon bromeliifolius with Open Low Woodland A of Melaleuca preissiana, Eucalyptus marginata subsp. marginata and Nuytsia floribunda, Open Scrub of Kunzea glabrescens and Kunzea recurva, and Open Dwarf Scrub C of Pericalymma ellipticum var. ellipticum, Adenanthos obovatus and Hypocalymma angustifolium on grey sand on lower slopes


 LS Em Xp Bo Forest of Eucalyptus marginata subsp. marginata (+/- Allocasuarina fraseriana) over Low Scrub A of Xanthorrhoea preissii over Dwarf Scrub D of Bossiaea ornata (mid slopes) or Bossiaea eriocarpa (lower slopes) on brown loamy sand on mid and lower hill slopes


**Sandy Flats**

 SF MpNfEm Xp BeHaCf Low Woodland A of Melaleuca preissiana, Nuytsia floribunda and Eucalyptus marginata subsp. marginata over Open Scrub of Xanthorrhoea preissii over Open Dwarf Scrub C of Bossiaea eriocarpa, Hypocalymma angustifolium, Allocasuarina humilis and Calytrix flavescens over Open Dwarf Scrub D of Dasypogon bromeliifolius on grey sand on sandy flats


**Wetlands**

 WE Mp Ha Pa Forest of Melaleuca preissiana over Low Heath D of Hypocalymma angustifolium over Open Tall Sedges of Tremula tremulina on grey clay on wetland


 WE Pa PeAoHa Mp Tall Sedges of Tremula tremulina with Dwarf Scrub C/D of Pericalymma ellipticum, Adenanthos obovatus and Hypocalymma angustifolium, Open Low Woodland A/B of Melaleuca preissiana, and Open Scrub of Xanthorrhoea preissii, Kunzea glabrescens and Kunzea recurva on grey clayey sand on wetland

 WE Ha PaCa MpEr Dwarf Scrub D of Hypocalymma angustifolium over Open Tall Sedges of Tremula tremulina and Cyathochaeta avenacea with Open Low Woodland A of Melaleuca preissiana and Eucalyptus rudis subsp. rudis, Open Scrub of Taxandria linearifolia and Hakea varia, and Open Low Scrub B of Astartea scoparia, Taxandria linearifolia and Melaleuca incana subsp. incana on grey clay / clayey sand on wetland

**Minor Drainage Line**

 MI Mp AsMiHv Ca Low Woodland A of Melaleuca preissiana over Low Scrub B of Astartea scoparia, Melaleuca incana subsp. incana and Hakea varia over Very Open Low Sedges of Cyathochaeta avenacea on cream / grey silty clay loam narrowly incised minor drainage lines

**Drainage Flats**


 DF DbHa Mp Ao Dwarf Scrub D of Dasypogon bromeliifolius and Hypocalymma angustifolium with Open Low Woodland A of Melaleuca preissiana and Open Dwarf Scrub C of Adenanthos obovatus (Kunzea recurva) on grey loamy sand on open drainage flats

**Other**

 Water

 Plantation

 Powerline

 Rehab

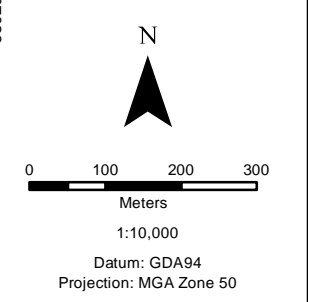
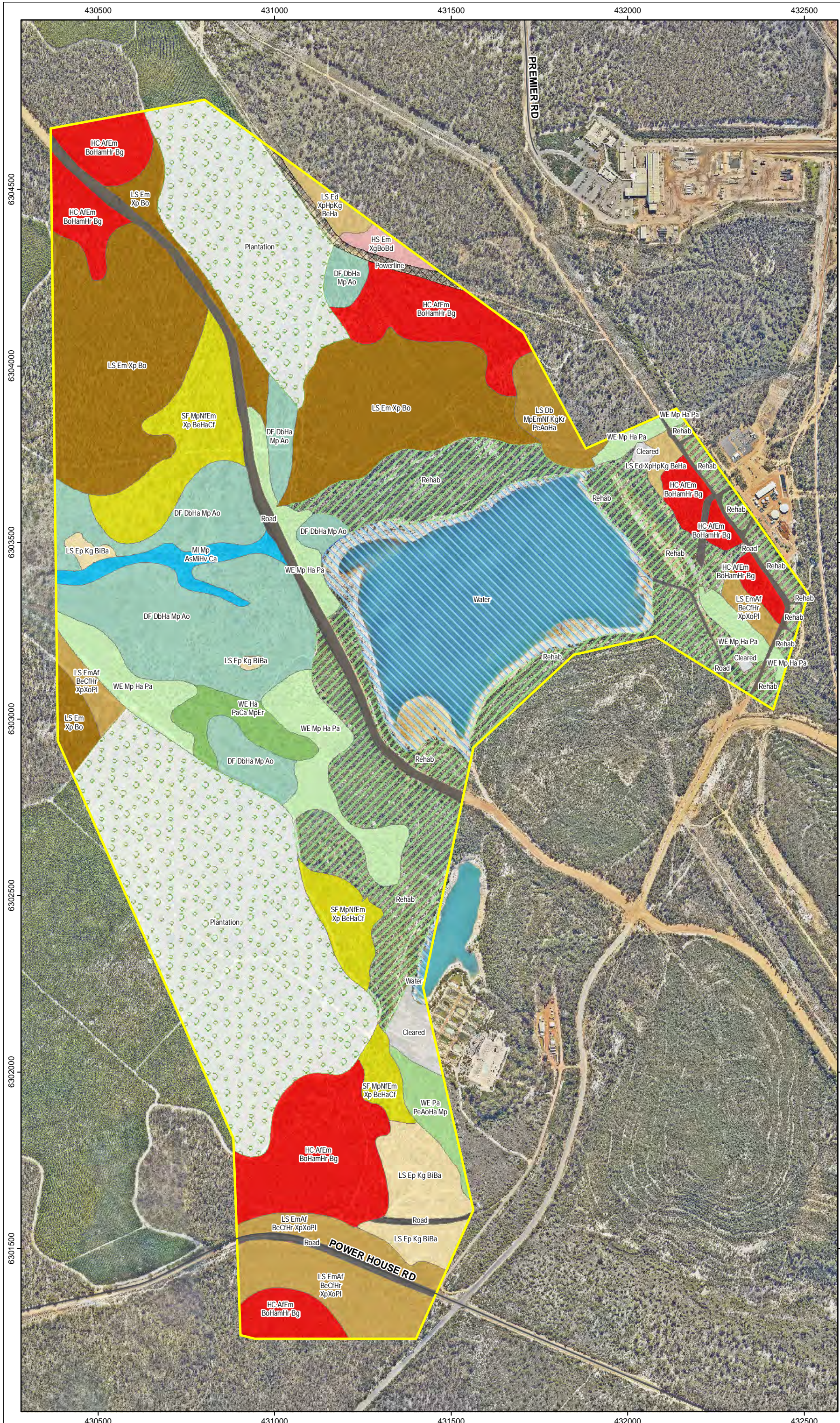
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 Road

# PREMIER COAL

**FIGURE 9**  
Pit 7 Exploration Area  
Vegetation Types

**Legend**  
 Study Area



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 Figure: 9  
 Sheet Size: A3  
 Internal Reference: PC\_Pit7\_VT  
 Drawn by: GSM  
 Requested by: DB

### 3.8 Vegetation Condition

Vegetation condition within the study area ranged from *completely degraded* to *excellent* (Figure 10, Table 10). Areas within the study area not supporting native vegetation, mapped as cleared, pine plantation, powerline, mine rehabilitation, roads, and water filled mining voids extended across 186.28 ha (48% of the study area), and were rated as completely degraded. Outside of these disturbed and altered areas, native vegetation condition was predominantly rated as very good (119 ha or 31% of the study area) or excellent (50 ha or 13% of the study area), with a smaller proportion rated as good (19 ha or 5% of the study area) or degraded (12 ha or 3% of the study area).

Disturbances recorded within the study area included historical logging of native hardwood timber, establishment of softwood plantation timber, historical mining and exploration, construction of access and haul roads, and fire.

Table 10 Vegetation condition within the study area.

Condition	Area (ha)	% of Total
Pristine	0	0
Excellent	50.15	12.95
Very Good	119.22	30.78
Good	19.15	4.94
Degraded	12.50	3.23
Completely Degraded	186.28	48.10
<b>Total</b>	<b>387.31</b>	<b>100.00</b>

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# PREMIER COAL

## FIGURE 10

### Pit 7 Exploration Area

### Vegetation Condition

#### Legend

- Study Area
- Vegetation Condition**
- Completely Degraded
- Degraded
- Good
- Very Good
- Excellent

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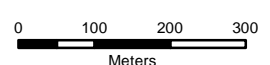
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Projection: MGA Zone 50

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 Status: Draft  
 Figure: 10  
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 Drawn by: GSM  
 Requested by: DB



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<b>Code</b>	HC AfEm BoHamHr Bg
<b>Broad Floristic Formation</b>	<i>Allocasuarina</i> Forest
<b>Vegetation Type</b>	Forest of <i>Allocasuarina fraseriana</i> and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> over Dwarf Scrub D of <i>Bossiaea ornata</i> , <i>Hibbertia amplexicaulis</i> and <i>Hibbertia vaginata</i> , with Open Low Woodland B of <i>Allocasuarina fraseriana</i> , <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Banksia grandis</i> on grey sand on hill crests and upper hill slopes



Quadrats Sampled	PC02, PC06, PC08
Area	38.01 ha or 9.81% of the study area
Soils and Geology	Grey sand (skeletal), laterite, prominent outcropping
Land Form	Laterised hill crests
Priority Ecological Community	No
Conservation Significant Flora	<i>Acacia semitrullata</i> (P4) was recorded as 2 plants from one spot location in the southwest corner of the study area, but was more common on sandy lower slopes and flats nearby to the northeast
Introduced (Weed) Species	* <i>Aira caryophyllea</i>
Vegetation Condition	Very Good
Disturbances	Historical logging
Average Fire Age	Recent (0-2 years) to Moderate (3-5 years)



<b>Code</b>	HS Em XgBoBd
<b>Broad Floristic Formation</b>	<i>Eucalyptus</i> Forest
<b>Vegetation Type</b>	Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> Dwarf Scrub D of <i>Xanthorrhoea gracilis</i> , <i>Bossiaea ornata</i> and <i>Banksia dallaneyi</i> ( <i>Trymalium ledifolium</i> ) on grey sand on upper hill slopes



Quadrats Sampled	PC20
Area	1.34 ha or 0.35% of the study area
Soils and Geology	Grey sand, laterite
Land Form	Upper hill slopes
Priority Ecological Community	No
Conservation Significant Flora	None
Introduced (Weed) Species	* <i>Aira caryophyllea</i>
Vegetation Condition	Very Good
Disturbances	Historical logging
Average Fire Age	Recent (0-2 years)

<b>Code</b>	LS Em Xp Bo
<b>Broad Floristic Formation</b>	<i>Eucalyptus</i> Forest
<b>Vegetation Type</b>	Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (+/- <i>Allocasuarina fraseriana</i> ) over Low Scrub A of <i>Xanthorrhoea preissii</i> over Dwarf Scrub D of <i>Bossiaea ornata</i> (mid slopes) or <i>Bossiaea eriocarpa</i> (lower slopes) on brown loamy sand on mid and lower hill slopes



Quadrats Sampled	PC04, PC12, PC14
Area	50.15 ha or 12.95% of the study area
Soils and Geology	Brown loamy sand
Land Form	Mid and lower hill slopes
Priority Ecological Community	No
Conservation Significant Flora	None
Introduced (Weed) Species	* <i>Hypochaeris glabra</i>
Vegetation Condition	Excellent to Very Good
Disturbances	Historical mine exploration, frequent fire
Average Fire Age	Recent (0-2 years) to Moderate (3-5 years)

<b>Code</b>	LS Em BeCfHr XpXoPI
<b>Broad Floristic Formation</b>	<i>Eucalyptus</i> Forest
<b>Vegetation Type</b>	Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> ( <i>Allocasuarina fraseriana</i> ) over Low Heath D of <i>Bossiaea eriocarpa</i> , <i>Calytrix flavescens</i> and <i>Hibbertia vaginata</i> ( <i>Babingtonia camphorosmae</i> , <i>Styphelia erubescens</i> ), with Open Scrub of <i>Xanthorrhoea preissii</i> , <i>Xylomelum occidentale</i> and <i>Persoonia longifolia</i> ( <i>Leptospermum erubescens</i> , <i>Allocasuarina humilis</i> ) on grey sand on lower slopes



Quadrats Sampled	PC10, PC26, PC30, PC32, PC34
Area	15.51 ha or 4.00% of the study area
Soils and Geology	Grey sand
Land Form	Lower hill slopes
Priority Ecological Community	No
Conservation Significant Flora	None
Introduced (Weed) Species	* <i>Aira caryophyllea</i> , * <i>Disa bracteata</i> , * <i>Hypochaeris glabra</i> , * <i>Ursinia anthemoides</i>
Vegetation Condition	Excellent - Very Good
Disturbances	Historical logging, frequent fire, access tracks
Average Fire Age	Recent (0-2 years) to Moderate (3-5 years)

<b>Code</b>	LS EwEd XpHpKg BeHa
<b>Broad Floristic Formation</b>	<i>Eucalyptus</i> Woodland
<b>Vegetation Type</b>	Woodland of <i>Eucalyptus wandoo</i> (±Tree Mallee of <i>Eucalyptus decipiens</i> subsp. <i>decipiens</i> ) over Open Low Scrub A of <i>Xanthorrhoea preissii</i> , <i>Hakea prostrata</i> and <i>Kunzea glabrescens</i> ( <i>Acacia saligna</i> ) over Open Dwarf Scrub D of <i>Bossiaea eriocarpa</i> and <i>Hypocalymma angustifolium</i> ( <i>Hakea lissocarpa</i> , <i>Banksia bipinnatifida</i> ) on grey/brown sand on lower slopes



Quadrats Sampled	PC18, PC33
Area	2.51 ha or 0.0.65% of the study area
Soils and Geology	Brown loamy sand
Land Form	Lower hill slopes, footslopes
Priority Ecological Community	No
Conservation Significant Flora	None
Introduced (Weed) Species	* <i>Aira caryophyllea</i> , * <i>Asparagus asparagoides</i> , * <i>Lysimachia arvensis</i>
Vegetation Condition	Good
Disturbances	Pigs, weeds, access track, powerline corridor, pine plantation adjacent
Average Fire Age	Moderate (3 to 5 yr)

<b>Code</b>	LS Ep Kg BiBa
<b>Broad Floristic Formation</b>	<i>Eremaea</i> Heath B
<b>Vegetation Type</b>	Heath B of <i>Eremaea pauciflora</i> with Scrub of <i>Kunzea glabrescens</i> and Open Low Woodland A of <i>Banksia ilicifolia</i> and <i>Banksia attenuata</i> on grey deep sand on sandy lower slopes



Quadrats Sampled	PC24, PC25
Area	8.68 ha or 2.24% of the study area
Soils and Geology	Deep grey sand
Land Form	Lower hill slopes, footslopes, sandy flats
Priority Ecological Community	No
Conservation Significant Flora	The largest proportion of the <i>Acacia semitrullata</i> (P4) population occurred within this vegetation type in the southeast corner of the study area. Also present at the same location was the range extension <i>Aotus procumbens</i>
Introduced (Weed) Species	* <i>Aira caryophylla</i> , * <i>Aira cupaniana</i> , * <i>Hypochaeris glabra</i> , * <i>Pentameris airoides</i> , * <i>Ursinia anthemoides</i> , * <i>Vulpia bromoides</i> ,
Vegetation Condition	Good to Very Good
Disturbances	Historical mine exploration, ground disturbance, access tracks
Average Fire Age	Old (6+ years)

<b>Code</b>	LS Db MpEmNf KgKr PeAoHa
<b>Broad Floristic Formation</b>	<i>Dasyogon</i> Low Heath D
<b>Vegetation Type</b>	Low Heath D of <i>Dasyogon bromeliifolius</i> with Open Low Woodland A of <i>Melaleuca preissiana</i> , <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Nuytsia floribunda</i> , Open Scrub of <i>Kunzea glabrescens</i> and <i>Kunzea recurva</i> , and Open Dwarf Scrub C of <i>Pericalymma ellipticum</i> var. <i>ellipticum</i> , <i>Adenanthos obovatus</i> and <i>Hypocalymma angustifolium</i> on grey sand on lower slopes



Quadrats Sampled	PC16, PC31, PC36
Area	3.88 ha or 1.00% of the study area
Soils and Geology	Grey sand, loamy sand
Land Form	Lower slopes, footslopes
Priority Ecological Community	No
Conservation Significant Flora	The entire population of <i>Pultenaea skinneri</i> (P4) was recorded within this vegetation type in the northeast sector of the study area
Introduced (Weed) Species	* <i>Aira caryophyllea</i> , * <i>Hypochaeris glabra</i> , * <i>Pentameris airoides</i> , * <i>Pinus radiata</i> , <i>Ursinia anthemoides</i>
Vegetation Condition	Good to Very Good
Disturbances	Historical mine exploration, logging, access tracks, heavy grazing by kangaroos
Average Fire Age	Old (6+ years)

<b>Code</b>	SF MpNfEm Xp BeHaCf
<b>Broad Floristic Formation</b>	<i>Melaleuca</i> Low Woodland A
<b>Vegetation Type</b>	Low Woodland A of <i>Melaleuca preissiana</i> , <i>Nuytsia floribunda</i> and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> over Open Scrub of <i>Xanthorrhoea preissii</i> over Open Dwarf Scrub C of <i>Bossiaea eriocarpa</i> , <i>Hypocalymma angustifolium</i> , <i>Allocasuarina humilis</i> and <i>Calytrix flavescens</i> over Open Dwarf Scrub D of <i>Dasyogon bromeliifolius</i> on grey sand on sandy flats



Quadrats Sampled	PC13, PC15, PC22
Area	16.86 ha or 4.35% of the study area
Soils and Geology	Grey sand
Land Form	Sandy flats
Priority Ecological Community	No
Conservation Significant Flora	Two spot locations for <i>Acacia semitrullata</i> (P4) were recorded within this vegetation type, noting the larger population occurred in the neighbouring association immediately to the south
Introduced (Weed) Species	* <i>Aira caryophyllea</i> , * <i>Briza maxima</i> , * <i>Hypochaeris glabra</i> , * <i>Pentameris airoides</i> , <i>Ursinia anthemoides</i>
Vegetation Condition	Good to Excellent
Disturbances	Frequent fire, historical mine exploration, access tracks and haul road nearby, ground disturbance, logging
Average Fire Age	Recent (0-2 years) and Old (6+ years)

<b>Code</b>	DF DbHa Mp Ao
<b>Broad Floristic Formation</b>	<i>Dasypogon</i> Dwarf Scrub D
<b>Vegetation Type</b>	Dwarf Scrub D of <i>Dasypogon bromeliifolius</i> and <i>Hypocalymma angustifolium</i> with Open Low Woodland A of <i>Melaleuca preissiana</i> and Open Dwarf Scrub C of <i>Adenanthos obovatus</i> ( <i>Kunzea recurva</i> ) on grey loamy sand on open drainage flats



<b>Quadrats Sampled</b>	PC05, PC07, PC17
<b>Area</b>	35.76 ha or 9.23% of the study area
<b>Soils and Geology</b>	Grey loamy sand
<b>Land Form</b>	Open drainage flats
<b>Priority Ecological Community</b>	No
<b>Conservation Significant Flora</b>	None
<b>Introduced (Weed) Species</b>	<i>*Aira caryophyllea</i> , <i>*Aira praecox</i> , <i>*Briza minor</i> , <i>*Disa bracteata</i> , <i>*Hypochaeris glabra</i> , <i>*Parentucellia latifolia</i> , <i>*Pentameris airoides</i> , <i>Ursinia anthemoides</i> , <i>*Vulpia bromoides</i>
<b>Vegetation Condition</b>	Very Good
<b>Disturbances</b>	Access tracks, heavy grazing by kangaroos, frequent fire
<b>Average Fire Age</b>	Recent (0-2 years)



<b>Code</b>	WE Mp Ha Pa
<b>Broad Floristic Formation</b>	<i>Melaleuca</i> Forest
<b>Vegetation Type</b>	Forest of <i>Melaleuca preissiana</i> over Low Heath D of <i>Hypocalymma angustifolium</i> over Open Tall Sedges of <i>Tremula tremulina</i> on grey clay on wetland



Quadrats Sampled	PC19, PC27, PC28, PC35
Area	17.82 ha or 4.60% of the study area
Soils and Geology	Grey light to heavy clay / loamy sand
Land Form	Wetland / drainage flats
Priority Ecological Community	No
Conservation Significant Flora	Supports two range extension taxa, <i>Aotus procumbens</i> and <i>Acacia trigonophylla</i>
Introduced (Weed) Species	* <i>Aira caryophyllea</i> , * <i>Conyza bonariensis</i> , * <i>Disa bracteata</i> , * <i>Hypochaeris glabra</i> , * <i>Pentameris aeroides</i> , * <i>Pinus radiata</i> , * <i>Pseudognaphalium luteoalbum</i> , * <i>Ursinia anthemoides</i> , * <i>Vulpia bromoides</i>
Vegetation Condition	Very Good - Good
Disturbances	Pigs, mine rehabilitation nearby, heavy grazing by kangaroos, access tracks
Average Fire Age	Old (6+ years)

<b>Code</b>	WE Ha PaCa MpEr
<b>Broad Floristic Formation</b>	<i>Hypocalymma</i> Dwarf Scrub D
<b>Vegetation Type</b>	Dwarf Scrub D of <i>Hypocalymma angustifolium</i> over Open Tall Sedges of <i>Tremula tremulina</i> and <i>Cyathochaeta avenacea</i> with Open Low Woodland A of <i>Melaleuca preissiana</i> and <i>Eucalyptus rudis</i> subsp. <i>rudis</i> , Open Scrub of <i>Taxandria linearifolia</i> and <i>Hakea varia</i> , and Open Low Scrub B of <i>Astartea scoparia</i> , <i>Taxandria linearifolia</i> and <i>Melaleuca incana</i> subsp. <i>incana</i> on grey clay / clayey sand on wetland



Quadrats Sampled	PC01, PC09, PC29
Area	4.06 ha or 1.05% of the study area
Soils and Geology	Grey clay / clayey sand
Land Form	Wetland
Priority Ecological Community	No
Conservation Significant Flora	None
Introduced (Weed) Species	* <i>Aira caryophyllea</i> , * <i>Briza maxima</i> , * <i>Briza minima</i> , * <i>Lysimachia arvensis</i> , * <i>Pentameris aroides</i> , * <i>Pinus radiata</i> , * <i>Sonchus oleraceus</i> , * <i>Ursinia anthemoides</i> , * <i>Vulpia bromoides</i>
Vegetation Condition	Very Good to Excellent
Disturbances	Frequent fire, access tracks
Average Fire Age	Recent (0-2 years) and Old (6+ years)

<b>Code</b>	WE Pa PeAoHa Mp
<b>Broad Floristic Formation</b>	<i>Tremula</i> Tall Sedges
<b>Vegetation Type</b>	Tall Sedges of <i>Tremula tremulina</i> with Dwarf Scrub C/D of <i>Pericalymma ellipticum</i> , <i>Adenanthos obovatus</i> and <i>Hypocalymma angustifolium</i> , Open Low Woodland A/B of <i>Melaleuca preissiana</i> , and Open Scrub of <i>Xanthorrhoea preissii</i> , <i>Kunzea glabrescens</i> and <i>Kunzea recurva</i> on grey clayey sand on wetland



Quadrats Sampled	PC21, PC23
Area	2.92 ha or 0.75% of the study area
Soils and Geology	Grey clayey sand
Land Form	Wetland, flats
Priority Ecological Community	No
Conservation Significant Flora	One spot location for <i>Acacia semitrullata</i> (P4) was recorded within this vegetation type, noting the larger population occurred in the neighbouring association immediately to the west.
Introduced (Weed) Species	* <i>Disa bracteata</i> , * <i>Pinus radiata</i>
Vegetation Condition	Very Good to Excellent
Disturbances	Historical mine exploration, access tracks, logging
Average Fire Age	Old (6+ years)

<b>Code</b>	MI Mp AsMiHv Ca
<b>Broad Floristic Formation</b>	<i>Melaleuca</i> Low Woodland A
<b>Vegetation Type</b>	Low Woodland A of <i>Melaleuca preissiana</i> over Low Scrub B of <i>Astartea scoparia</i> , <i>Melaleuca incana</i> subsp. <i>incana</i> and <i>Hakea varia</i> over Very Open Low Sedges of <i>Cyathochaeta avenacea</i> on cream / grey silty clay loam narrowly incised minor drainage lines



Quadrats Sampled	PC03, PC11
Area	3.51 ha or 0.91% of the study area
Soils and Geology	Grey silty clay loam / loamy sand
Land Form	Minor drainage lines
Priority Ecological Community	No
Conservation Significant Flora	None
Introduced (Weed) Species	* <i>Aira caryophyllea</i> , * <i>Disa bracteata</i> , * <i>Hypochaeris glabra</i> , * <i>Pentameris aeroides</i> , * <i>Ursinia anthemoides</i> , * <i>Vellereophyton dealbatum</i> , * <i>Vulpia bromoides</i>
Vegetation Condition	Very Good to Excellent
Disturbances	Frequent fire, access tracks, heavy grazing by kangaroos
Average Fire Age	Recent (0 to 2 yr)

### 3.9 Representation and Reservation of Vegetation

To assess the representation of vegetation within the study area, regional mapping completed by Beard (1981) was utilised. A single Beard vegetation association (Bridgetown 3) was represented within the study area (Table 11). When considering representation at the State level, this association currently has 67.86% of the pre-European extent remaining (Government of Western Australia 2018). The study area is located within the Jarrah Forest bioregion, specifically within the Southern Jarrah Forest subregion (as discussed in Section 1.2). When considering the representation of vegetation at the IBRA regional level and IBRA system level, greater than 59% of the pre-European extent remains for the vegetation association represented (Table 11). The study area falls entirely within the Shire of Collie. At this local level greater than 73% of the pre-European extent remain for the vegetation association represented (Table 11).

The representation of vegetation complexes within the reserve system has also been published as part of the Regional Forest Agreement (RFA) process for South West Forests and updated as part of the latest Forest Management Plan. At the complex level, the study area occurs across two vegetation complexes; Collie (CI) and Cardiff (CF) (GoWA 2018, Table 11). Both of these vegetation complexes currently have more than 53 percent of the calculated pre-European extent remaining within the South West Forest Region, with 6.3% of the Collie complex occurring within class I-IV conservation reserves (GoWA 2018) (Table 11).

In terms of representation, the Western Australian Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment 2002, EPA 2000). Vegetation within the study area is therefore determined to be well represented at all levels (statewide, bioregional [IBRA region and IBRA sub-region] and local), with more than 59% of the pre-European extent remaining for the Beard vegetation association represented within the study area, and more than 53% of the pre-European extent remaining for the two RFA vegetation associations represented within the study area.

In terms of reservation, there is a benchmark for a minimum of 15% of each Beard vegetation association to be protected in class I-IV reserves (Commonwealth of Australia 1997). Across all levels, the proportion of the vegetation association occurring within secure reserves ranges from 4.4% to 31.0% (Table 11). However, given that the proposed development will not significantly reduce the pre-European extent of vegetation represented within the study area (i.e. will remain well above the 30% threshold within the bioregion), the reservation status is determined to be of least concern for biodiversity conservation.

**Table 11 Pre-European extent of vegetation represented on the basis of identified datasets.**

Vegetation System / Association	Pre-European Extent (ha)	Current Extent Remaining (ha)	% Extent of Pre-European	% Current Extent Protected (IUCN I - IV)
Beard Vegetation Association				
3 - Medium forest; jarrah-marri	2,661,404.62	1,806,035.91	67.86	26.87
Vegetation System				
Bridgetown 3.1	700,920.82	456,448.65	65.12	28.87
Jarrah Forest (JAF)				
Beard Vegetation Association 3	2,390,591.54	1,606,736.77	67.21	23.97

Vegetation System / Association	Pre-European Extent (ha)	Current Extent Remaining (ha)	% Extent of Pre-European	% Current Extent Protected (UCN I - IV)
Bridgetown 3.1	695,903.60	451,804.22	64.92	18.55
Southern Jarrah Forest JAF02				
Beard Vegetation Association 3	1,482,491.85	883,557.83	59.60	31.03
Bridgetown 3.1	684,331.98	444,272.04	64.92	18.86
Shire of Collie				
Beard Vegetation Association 3	158,906.01	130,832.13	82.33	20.83
Bridgetown 3.1	59,631.46	44,079.02	73.92	4.40
Mattiske & Havel Complexes				
Collie CI	11,004.73	7,354.88	66.83	6.28
Cardiff CF	6,236.58	3,360.93	53.89	

## 3.10 Conservation Significance of Vegetation

### 3.10.1 National Significance

None of the 13 vegetation types recorded from the study area support Threatened Flora listed under the EPBC Act or are aligned with any federal listed TECs. Therefore vegetation within the study area is not considered to be of national significance.

### 3.10.2 State Significance

None of the 13 vegetation types recorded from the study area support Threatened Flora listed under the BC Act or are aligned with any state listed TECs or PECs. However, five vegetation types supported two Priority flora listed by the DBCA, and these units may therefore be considered to be of state conservation significance. These vegetation types were:

1. HC AfEm BoHamHr Bg: Forest of *Allocasuarina fraseriana* and *Eucalyptus marginata* subsp. *marginata* over Dwarf Scrub D of *Bossiaea ornata*, *Hibbertia amplexicaulis* and *Hibbertia vaginata*, with Open Low Woodland B of *Allocasuarina fraseriana*, *Eucalyptus marginata* subsp. *marginata* and *Banksia grandis* on grey sand on hill crests and upper hill slopes;
2. SF MpNfEm Xp BeHaCf: Low Woodland A of *Melaleuca preissiana*, *Nuytsia floribunda* and *Eucalyptus marginata* subsp. *marginata* over Open Scrub of *Xanthorrhoea preissii* over Open Dwarf Scrub C of *Bossiaea eriocarpa*, *Hypocalymma angustifolium*, *Allocasuarina humilis* and *Calytrix flavescens* over Open Dwarf Scrub D of *Dasyopogon bromeliifolius* on grey sand on sandy flats;
3. LS Ep Kg BiBa: Heath B of *Eremaea pauciflora* with Scrub of *Kunzea glabrescens* and Open Low Woodland A of *Banksia ilicifolia* and *Banksia attenuata* on grey deep sand on sandy lower slopes;
4. LS Db MpEmNf KgKr PeAoHa: Low Heath D of *Dasyopogon bromeliifolius* with Open Low Woodland A of *Melaleuca preissiana*, *Eucalyptus marginata* subsp. *marginata* and *Nuytsia floribunda*, Open Scrub of *Kunzea glabrescens* and *Kunzea recurva*, and Open Dwarf Scrub C of *Pericalymma ellipticum* var. *ellipticum*, *Adenanthos obovatus* and *Hypocalymma angustifolium* on grey sand on lower slopes; and
5. WE Pa PeAoHa Mp: Tall Sedges of *Tremula tremulina* with Dwarf Scrub C/D of *Pericalymma ellipticum*, *Adenanthos obovatus* and *Hypocalymma angustifolium*, Open Low Woodland A/B of *Melaleuca preissiana*, and Open Scrub of *Xanthorrhoea preissii*, *Kunzea glabrescens* and *Kunzea recurva* on grey clayey sand on wetland.

### 3.10.3 Local Significance

Two plant taxa recorded within the study area were considered to represent range extensions from their current known distributions. Vegetation supporting these two taxa was determined to be of local significance and included the following three vegetation types:

1. LS Ep Kg BiBa: Heath B of *Eremaea pauciflora* with Scrub of *Kunzea glabrescens* and Open Low Woodland A of *Banksia ilicifolia* and *Banksia attenuata* on grey deep sand on sandy lower slopes;
2. WE Pa PeAoHa Mp: Tall Sedges of *Tremula tremulina* with Dwarf Scrub C/D of *Pericalymma ellipticum*, *Adenanthos obovatus* and *Hypocalymma angustifolium*, Open Low Woodland A/B of *Melaleuca preissiana*, and Open Scrub of *Xanthorrhoea preissii*, *Kunzea glabrescens* and *Kunzea recurva* on grey clayey sand on wetland; and
3. WE Mp Ha Pa: Forest of *Melaleuca preissiana* over Low Heath D of *Hypocalymma angustifolium* over Open Tall Sedges of *Tremula tremulina* on grey clay on wetland.

## 4.0 SUMMARY

A detailed flora and vegetation survey of a proposed exploration area situated immediately west of Premier Coal Limited's existing coal mining operations in the south-west region of Western Australia was completed under good seasonal conditions in October/November 2019, with a supplementary field survey undertaken in February 2022.

A total number of 363 plant taxa from 54 families and 173 genera were recorded from the study area. Species representation was greatest among the Fabaceae, Myrtaceae, Proteaceae, Asteraceae, Cyperaceae and Stylidiaceae families. The most speciose genera were *Acacia* and *Stylidium* (17 taxa), followed by *Hibbertia* (11 taxa), *Gompholobium* (9 taxa), *Banksia*, *Lomandra* and *Styphelia* (8 taxa each).

None of the plant taxa recorded from the study area were listed as Threatened Flora under the Commonwealth EPBC Act or Western Australian BC Act. However, two Priority 4 flora taxa listed by the DBCA were recorded from the study area; *Acacia semitrullata* and *Pultenaea skinneri*. The total flora also included two plant taxa that were considered to represent range extensions from their current known distributions, *Acacia trigonophylla* and *Aotus procumbens*. A total of 25 introduced species were recorded from the study area, with one of these weed taxa listed as a Declared Pest under the BAM Act; *Asparagus asparagoides* (Bridal Creeper).

A total of 13 vegetation types classified as ten broad floristic formations and occurring on six broad landforms were described and mapped from the study area. None of the vegetation types were aligned with Commonwealth or State listed TECs or State listed PECs, and all were well represented regionally.

Vegetation condition within the study area ranged from *completely degraded* to *excellent*. Approximately 48% of the study area did not support native vegetation and was mapped as a combination of cleared ground, pine plantation, powerline corridors, mine rehabilitation, roads, and water filled mining voids. Outside of these disturbed areas, native vegetation condition was predominantly rated as very good (31% of the study area) or excellent (13% of the study area), with a smaller proportion rated as good (5% of the study area) or degraded (3% of the study area). Disturbances recorded within the study area included historical logging of native hardwood timber, establishment of softwood plantation timber, historical mining and exploration, construction of access and haul roads, and fire.



## 5.0 STUDY TEAM

The detailed flora and vegetation survey was planned, co-ordinated and executed by the following personnel:

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### Project Staff

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Dr Jerome Bull	PhD	Principal Botanist
Ms Jessica Waters	BSc	Senior Botanist
Mrs Kerry Keenan		Data Analyst
Mr Todd Griffin		GIS Specialist

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# APPENDIX 1

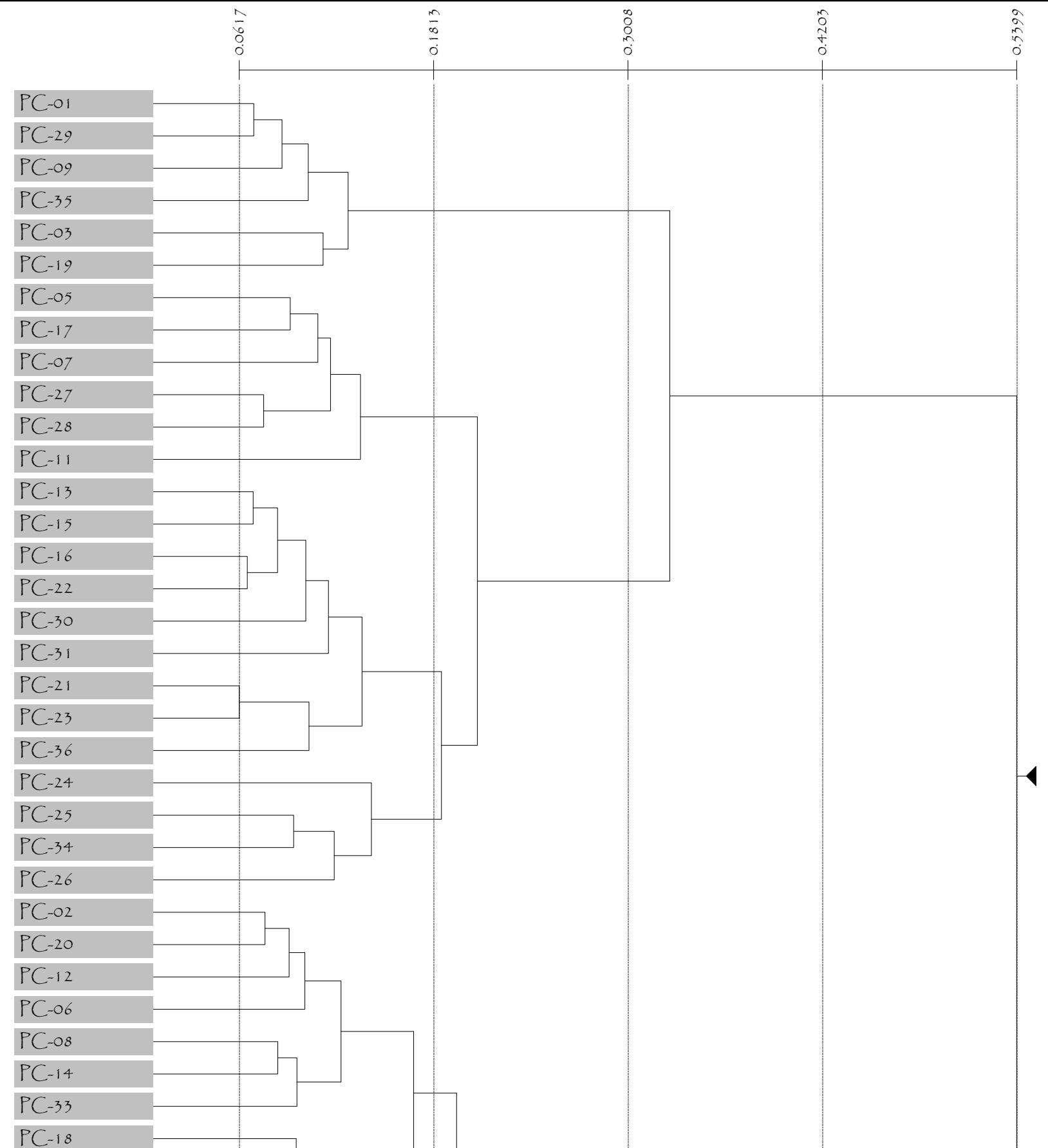
Vegetation condition scale  
(as developed by Keighery 1994)

Condition	Code	Description
Pristine	1	Pristine or nearly so, no obvious signs of disturbance.
Excellent	2	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species.
Very Good	3	Vegetation structure altered; obvious signs of disturbance.
Good	4	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it.
Degraded	5	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching Very Good condition without intensive management.
Completely Degraded	6	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species.

# APPENDIX 2

Column Fusion Dendrogram  
36 quadrats by 298 plant taxa

# Column Fusion Dendrogram





PC-32

PC-04

PC-10



# APPENDIX 3

Vegetation classification following Muir (1997)

LIFE FORM / HEIGHT CLASS	Canopy Cover			
	DENSE 70% - 100%	MID DENSE 30% - 70%	SPARSE 10% - 30%	VERY SPARSE 2% - 10%
Trees > 30 m	Dense Tall Forest	Tall Forest	Tall Woodland	Open Tall Woodland
Trees 15 – 30 m	Dense Forest	Forest	Woodland	Open Woodland
Trees 5 – 15 m	Dense Low Forest A	Low Forest A	Low Woodland A	Open Low Woodland A
Trees < 5 m	Dense Low Forest B	Low Forest B	Low Woodland B	Open Low Woodland B
Mallee tree form	Dense Tree Mallee	Tree Mallee	Open Tree Mallee	Very Open Tree Mallee
Mallee shrub form	Dense Shrub Mallee	Shrub Mallee	Open Shrub Mallee	Very Open Shrub Mallee
Shrubs > 2 m	Dense Thicket	Thicket	Scrub	Open Scrub
Shrubs 1.5 – 2 m	Dense Heath A	Heath A	Low Scrub A	Open Low Scrub A
Shrubs 1 - 1.5 m	Dense Heath B	Heath B	Low Scrub B	Open Low Scrub B
Shrubs 0.5 – 1 m	Dense Low Heath C	Low Heath C	Dwarf Scrub C	Open Dwarf Scrub C
Shrubs 0 - 0.5 m	Dense Low Heath D	Low Heath D	Dwarf Scrub D	Open Dwarf Scrub D
Mat plants	Dense Mat Plants	Mat Plants	Open Mat Plants	Very Open Mat Plants
Hummock grass	Dense Hummock Grass	Mid-Dense Hummock Grass	Hummock Grass	Open Hummock Grass
Bunch grass > 0.5 m	Dense Tall Grass	Tall Grass	Open Tall Grass	Very Open Tall Grass
Bunch grass < 0.5 m	Dense Low Grass	Low Grass	Open Low Grass	Very Open Low Grass
Herbaceous spp.	Dense Herbs	Herbs	Open Herbs	Very Open Herbs
Sedges > 0.5 m	Dense Tall Sedges	Tall Sedges	Open Tall Sedges	Very Open Tall Sedges
Sedges < 0.5 m	Dense Low Sedges	Low Sedges	Open Low Sedges	Very Open Low Sedges
Ferns	Dense Ferns	Ferns	Open Ferns	Very Open Ferns
Mosses, liverworts	Dense Mosses	Mosses	Open Mosses	Very Open Mosses

# APPENDIX 4

Conservation categories for flora described  
under the EPBC Act

Category	Description
Extinct	A species is extinct if there is no reasonable doubt that the last member of the species has died.
Extinct in the Wild	A species is categorised as extinct in the wild if it is only known to survive in cultivations, in captivity, or as a naturalised population well outside its past range; or if it has not been recorded in its known/expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
Critically Endangered	The species is facing an extremely high risk of extinction in the wild and in the immediate future.
Endangered	The species is likely to become extinct unless the circumstances and factors threatening its abundance, survival, or evolutionary development cease to operate; or its numbers have been reduced to such a critical level, or its habitats have been so drastically reduced, that it is in immediate danger of extinction.
Vulnerable	Within the next 25 years, the species is likely to become endangered unless the circumstances and factors threatening its abundance, survival or evolutionary development cease to operate.
Conservation Dependent	The species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

# APPENDIX 5

Conservation codes for Western Australian flora and fauna

<p>Specially protected fauna or flora are species* which have been adequately searched for and are deemed to be, in the wild, either rare, at risk of extinction, or otherwise in need of special protection, and have been gazetted as such. Categories of specially protected fauna and flora are:</p>	
T Threatened Species	<p>Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, and listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).</p> <p><i>Threatened fauna</i> is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.</p> <p><i>Threatened flora</i> is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.</p> <p>The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.</p>
CR Critically endangered species	<p>Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
EN Endangered species	<p>Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
VU Vulnerable species	<p>Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.</p>
EX Presumed extinct species	<p>Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.</p>
IA Migratory birds protected under an international agreement	<p>Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
CD Conservation dependent fauna	<p>Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>
OS Other specially protected fauna	<p>Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the <i>Wildlife Conservation Act 1950</i>, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.</p>

### Priority Species

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened flora or fauna.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

#### 1: Priority One - Poorly Known Taxa

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

#### 2: Priority Two - Poorly Known Taxa

Species that are known from one or a few collections (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

#### 3: Priority Three - Poorly Known Taxa

Species that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

#### 4: Priority Four - Rare, Near Threatened and other taxa in need of monitoring

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.



# APPENDIX 6

## Total flora list from the study area

\* denotes introduced species

Family	Genus	Species	Infra Rank	Infra Name
Amaranthaceae	<i>Ptilotus</i>	<i>manglesii</i>		
Anarthriaceae	<i>Anarthria</i>	<i>laevis</i>		
Anarthriaceae	<i>Lyginia</i>	<i>imberbis</i>		
Apiaceae	<i>Actinotus</i>	<i>glomeratus</i>		
Apiaceae	<i>Daucus</i>	<i>glochidiatus</i>		
Apiaceae	<i>Homalosciadium</i>	<i>homalocarpum</i>		
Apiaceae	<i>Xanthosia</i>	<i>atkinsoniana</i>		
Apiaceae	<i>Xanthosia</i>	<i>candida</i>		
Apiaceae	<i>Xanthosia</i>	<i>huegelii</i>		
Araliaceae	<i>Hydrocotyle</i>	<i>callicarpa</i>		
Araliaceae	<i>Trachymene</i>	<i>oleracea</i>		
Araliaceae	<i>Trachymene</i>	<i>pilosa</i>		
Asparagaceae	* <i>Asparagus</i>	<i>asparagoides</i>		
Asparagaceae	? <i>Asparagaceae</i>		sp.	indet
Asparagaceae	<i>Laxamannia</i>	<i>sessiliflora</i>		
Asparagaceae	<i>Laxamannia</i>	<i>squarrosa</i>		
Asparagaceae	<i>Lomandra</i>	<i>caespitosa</i>		
Asparagaceae	<i>Lomandra</i>	<i>hermaphrodita</i>		
Asparagaceae	<i>Lomandra</i>	<i>huegelii</i>		
Asparagaceae	<i>Lomandra</i>	<i>nigricans</i>		
Asparagaceae	<i>Lomandra</i>	<i>preissii</i>		
Asparagaceae	<i>Lomandra</i>	<i>purpurea</i>		
Asparagaceae	<i>Lomandra</i>	<i>sericea</i>		
Asparagaceae	<i>Lomandra</i>		sp.	indet
Asparagaceae	<i>Sowerbaea</i>	<i>laxiflora</i>		
Asparagaceae	<i>Thysanotus</i>	<i>patersonii</i>		
Asparagaceae	<i>Thysanotus</i>		sp.	indet
Asparagaceae	<i>Thysanotus</i>	<i>sparteus</i>		
Asparagaceae	<i>Thysanotus</i>	<i>tenellus</i>		
Asparagaceae	<i>Thysanotus</i>	<i>thyrsoides</i>		
Asteraceae	* <i>Conyza</i>	<i>bonariensis</i>		
Asteraceae	* <i>Hypochaeris</i>	<i>glabra</i>		
Asteraceae	* <i>Pseudognaphalium</i>	<i>luteoalbum</i>		
Asteraceae	* <i>Sonchus</i>	<i>oleraceus</i>		
Asteraceae	* <i>Ursinia</i>	<i>anthemoides</i>		
Asteraceae	* <i>Vellereophyton</i>	<i>dealbatum</i>		
Asteraceae	<i>Brachyscome</i>	<i>iberidifolia</i>		
Asteraceae	<i>Craspedia</i>	<i>variabilis</i>		
Asteraceae	<i>Hyalosperma</i>	<i>cotula</i>		
Asteraceae	<i>Hyalosperma</i>	<i>demissum</i>		
Asteraceae	<i>Lagenophora</i>	<i>huegelii</i>		
Asteraceae	<i>Millotia</i>	<i>tenuifolia</i>	var.	<i>tenuifolia</i>
Asteraceae	<i>Podolepis</i>	<i>gracilis</i>		
Asteraceae	<i>Podolepis</i>	<i>lessonii</i>		
Asteraceae	<i>Podotheca</i>	<i>angustifolia</i>		
Asteraceae	<i>Pterochaeta</i>	<i>paniculata</i>		
Asteraceae	<i>Quinetia</i>	<i>urvillei</i>		
Asteraceae	<i>Rhodanthe</i>	<i>citrina</i>		
Asteraceae	<i>Senecio</i>	<i>diaschides</i>		
Asteraceae	<i>Senecio</i>	<i>multicaulis</i>	subsp.	<i>multicaulis</i>

Family	Genus	Species	Infra Rank	Infra Name
Asteraceae	<i>Senecio</i>	<i>quadridentatus</i>		
Asteraceae	<i>Siloxerus</i>	<i>filifolius</i>		
Asteraceae	<i>Waitzia</i>	<i>suaveolens</i>		
Boryaceae	<i>Borya</i>		cf.	<i>scirpoidea</i>
Campanulaceae	* <i>Monopsis</i>	<i>debilis</i>		
Campanulaceae	* <i>Wahlenbergia</i>	<i>capensis</i>		
Campanulaceae	<i>Isotoma</i>	<i>hypocrateriformis</i>		
Campanulaceae	<i>Lobelia</i>	<i>anceps</i>		
Campanulaceae	<i>Lobelia</i>	<i>gibbosa</i>		
Campanulaceae	<i>Wahlenbergia</i>	<i>gracilentia</i>		
Casuarinaceae	<i>Allocasuarina</i>	<i>fraseriana</i>		
Casuarinaceae	<i>Allocasuarina</i>	<i>humilis</i>		
Celastraceae	<i>Stackhousia</i>	<i>huegelii</i>		
Celastraceae	<i>Tripterococcus</i>	<i>brunonis</i>		
Centrolepidaceae	<i>Centrolepis</i>	<i>alepyroides</i>		
Centrolepidaceae	<i>Centrolepis</i>	<i>aristata</i>		
Centrolepidaceae	<i>Centrolepis</i>	<i>caespitosa</i>		
Centrolepidaceae	<i>Centrolepis</i>	<i>drummondiana</i>		
Centrolepidaceae	<i>Centrolepis</i>	<i>mutica</i>		
Centrolepidaceae	<i>Centrolepis</i>	<i>pilosa</i>		
Centrolepidaceae	<i>Centrolepis</i>	<i>polygyna</i>		
Colchicaceae	<i>Burchardia</i>	<i>congesta</i>		
Crassulaceae	<i>Crassula</i>	<i>colorata</i>	var.	<i>colorata</i>
Crassulaceae	<i>Crassula</i>	<i>decumbens</i>	var.	<i>decumbens</i>
Cyperaceae	* <i>Cyperus</i>	<i>tenellus</i>		
Cyperaceae	* <i>Isolepis</i>	<i>prolifera</i>		
Cyperaceae	<i>Aphelia</i>	<i>cyperoides</i>		
Cyperaceae	<i>Cyathochaeta</i>	<i>avenacea</i>		
Cyperaceae	<i>Cyperaceae</i>		sp.	indet
Cyperaceae	<i>Cyperus</i>	<i>tenellus</i>		
Cyperaceae	<i>Gahnia</i>	<i>aristata</i>		
Cyperaceae	<i>Isolepis</i>	<i>congrua</i>		
Cyperaceae	<i>Isolepis</i>	<i>marginata</i>		
Cyperaceae	<i>Isolepis</i>	<i>oldfieldiana</i>		
Cyperaceae	<i>Isolepis</i>	<i>stellata</i>		
Cyperaceae	<i>Isolepis</i>		sp.	indet
Cyperaceae	<i>Lepidosperma</i>	<i>leptostachyum</i>		
Cyperaceae	<i>Lepidosperma</i>	<i>pubisquamum</i>		
Cyperaceae	<i>Lepidosperma</i>	<i>squamatum</i>		
Cyperaceae	<i>Lepidosperma</i>	<i>tenue</i>		
Cyperaceae	<i>Lepidosperma</i>		sp.	indet
Cyperaceae	<i>Machaerina</i>	<i>juncea</i>		
Cyperaceae	<i>Mesomelaena</i>	<i>tetragona</i>		
Cyperaceae	<i>Schoenus</i>	<i>curvifolius</i>		
Cyperaceae	<i>Schoenus</i>	<i>efoliatus</i>		
Cyperaceae	<i>Schoenus</i>	<i>nanus</i>		
Cyperaceae	<i>Schoenus</i>		sp.	indet
Cyperaceae	<i>Tetraria</i>	<i>octandra</i>		
Cyperaceae	<i>Tetraria</i>		sp.	Jarrah Forest (R. Davis 7391)
Dasyopogonaceae	<i>Dasyopogon</i>	<i>bromeliifolius</i>		

Family	Genus	Species	Infra Rank	Infra Name
Dennstaedtiaceae	<i>Pteridium</i>	<i>esculentum</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>amplexicaulis</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>commutata</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>diamesogenos</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>hypericoides</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>lasiopus</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>pulchra</i>	var.	<i>pulchra</i>
Dilleniaceae	<i>Hibbertia</i>	<i>silvestris</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>stellaris</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>subvaginata</i>		
Dilleniaceae	<i>Hibbertia</i>	<i>vaginata</i>		
Dilleniaceae	<i>Hibbertia</i>		sp.	indet
Droseraceae	<i>Drosera</i>	<i>gigantea</i>		
Droseraceae	<i>Drosera</i>	<i>intricata</i>		
Droseraceae	<i>Drosera</i>	<i>pallida</i>		
Droseraceae	<i>Drosera</i>	<i>pulchella</i>		
Droseraceae	<i>Drosera</i>		sp.	indet
Elaeocarpaceae	<i>Tetratheca</i>	<i>hirsuta</i>	subsp.	<i>viminea</i>
Ericaceae	<i>Andersonia</i>	<i>caerulea</i>		
Ericaceae	<i>Andersonia</i>	<i>involucrata</i>		
Ericaceae	<i>Conostephium</i>	<i>pendulum</i>		
Ericaceae	<i>Leucopogon</i>	<i>australis</i>		
Ericaceae	<i>Leucopogon</i>	<i>capitellatus</i>		
Ericaceae	<i>Leucopogon</i>	<i>glabellus</i>		
Ericaceae	<i>Leucopogon</i>	<i>sprengelioides</i>		
Ericaceae	<i>Lysinema</i>	<i>pentapetalum</i>		
Ericaceae	<i>Styphelia</i>	<i>conostephioides</i>		
Ericaceae	<i>Styphelia</i>	<i>discolor</i>		
Ericaceae	<i>Styphelia</i>	<i>erectifolia</i>		
Ericaceae	<i>Styphelia</i>	<i>erubescens</i>		
Ericaceae	<i>Styphelia</i>	<i>pallida</i>		
Ericaceae	<i>Styphelia</i>	<i>pendula</i>		
Ericaceae	<i>Styphelia</i>	<i>propinqua</i>		
Ericaceae	<i>Styphelia</i>	<i>tenuiflora</i>		
Euphorbiaceae	<i>Monotaxis</i>	<i>occidentalis</i>		
Fabaceae	* <i>Lupinus</i>	<i>angustifolius</i>		
Fabaceae	* <i>Acacia</i>	<i>pycnantha</i>		
Fabaceae	<i>Acacia</i>	<i>alata</i>		
Fabaceae	<i>Acacia</i>	<i>applanata</i>		
Fabaceae	<i>Acacia</i>	<i>browniana</i>	var.	<i>obscura</i>
Fabaceae	<i>Acacia</i>	<i>browniana</i>	var.	<i>endlicheri</i>
Fabaceae	<i>Acacia</i>	<i>celastrifolia</i>		
Fabaceae	<i>Acacia</i>	<i>drummondii</i>		
Fabaceae	<i>Acacia</i>	<i>extensa</i>		
Fabaceae	<i>Acacia</i>	<i>incurva</i>		
Fabaceae	<i>Acacia</i>	<i>insolita</i>	subsp.	<i>insolita</i>
Fabaceae	<i>Acacia</i>	<i>pulchella</i>	var.	<i>pulchella</i>
Fabaceae	<i>Acacia</i>	<i>saligna</i>		
Fabaceae	<i>Acacia</i>	<i>semitrullata</i>		
Fabaceae	<i>Acacia</i>	<i>stenoptera</i>		

Family	Genus	Species	Infra Rank	Infra Name
Fabaceae	<i>Acacia</i>	<i>trigonophylla</i>		
Fabaceae	<i>Acacia</i>	<i>urophylla</i>		
Fabaceae	<i>Acacia</i>		cf.	<i>trigonophylla</i>
Fabaceae	<i>Aotus</i>	<i>gracillima</i>		
Fabaceae	<i>Aotus</i>	<i>procumbens</i>		
Fabaceae	<i>Bossiaea</i>	<i>eriocarpa</i>		
Fabaceae	<i>Bossiaea</i>	<i>ornata</i>		
Fabaceae	<i>Daviesia</i>	<i>decurrens</i>	subsp.	<i>hamata</i>
Fabaceae	<i>Daviesia</i>	<i>incrassata</i>	subsp.	<i>incrassata</i>
Fabaceae	<i>Daviesia</i>	<i>inflata</i>		
Fabaceae	<i>Daviesia</i>	<i>preissii</i>		
Fabaceae	<i>Euchilopsis</i>	<i>linearis</i>		
Fabaceae	<i>Eutaxia</i>	<i>virgata</i>		
Fabaceae	<i>Gastrolobium</i>	<i>capitatum</i>		
Fabaceae	<i>Gompholobium</i>	<i>burtonioides</i>		
Fabaceae	<i>Gompholobium</i>	<i>capitatum</i>		
Fabaceae	<i>Gompholobium</i>	<i>confertum</i>		
Fabaceae	<i>Gompholobium</i>	<i>knightianum</i>		
Fabaceae	<i>Gompholobium</i>	<i>marginatum</i>		
Fabaceae	<i>Gompholobium</i>	<i>ovatum</i>		
Fabaceae	<i>Gompholobium</i>	<i>polymorphum</i>		
Fabaceae	<i>Gompholobium</i>	<i>preissii</i>		
Fabaceae	<i>Gompholobium</i>	<i>tomentosum</i>		
Fabaceae	<i>Hovea</i>	<i>chorizemifolia</i>		
Fabaceae	<i>Hovea</i>	<i>trisperma</i>		
Fabaceae	<i>Jacksonia</i>	<i>furcellata</i>		
Fabaceae	<i>Kennedia</i>	<i>coccinea</i>		
Fabaceae	<i>Kennedia</i>	<i>prostrata</i>		
Fabaceae	<i>Labichea</i>	<i>punctata</i>		
Fabaceae	<i>Mirbelia</i>	<i>dilatata</i>		
Fabaceae	<i>Phyllota</i>	<i>gracilis</i>		
Fabaceae	<i>Pultenaea</i>	<i>ericifolia complex</i>		
Fabaceae	<i>Pultenaea</i>	<i>ochreatea</i>		
Fabaceae	<i>Pultenaea</i>	<i>skinneri</i>		
Fabaceae	<i>Sphaerolobium</i>	<i>medium</i>		
Goodeniaceae	<i>Dampiera</i>	<i>alata</i>		
Goodeniaceae	<i>Dampiera</i>	<i>linearis</i>		
Goodeniaceae	<i>Dampiera</i>	<i>pedunculata</i>		
Goodeniaceae	<i>Dampiera</i>		sp.	indet
Goodeniaceae	<i>Goodenia</i>	<i>micrantha</i>		
Goodeniaceae	<i>Goodenia</i>	<i>pulchella</i>	subsp.	Coastal Plain B (L.W. Sage 2336)
Goodeniaceae	<i>Lechenaultia</i>	<i>biloba</i>		
Goodeniaceae	<i>Lechenaultia</i>	<i>floribunda</i>		
Goodeniaceae	<i>Scaevola</i>	<i>calliptera</i>		
Goodeniaceae	<i>Velleia</i>	<i>trinervis</i>		
Haemodoraceae	<i>Anigozanthos</i>	<i>bicolor</i>	subsp.	<i>decrescens</i>
Haemodoraceae	<i>Conostylis</i>	<i>aculeata</i>		
Haemodoraceae	<i>Conostylis</i>	<i>pusilla</i>		
Haemodoraceae	<i>Conostylis</i>	<i>serrulata</i>		
Haemodoraceae	<i>Conostylis</i>	<i>setigera</i>	subsp.	<i>setigera</i>

Family	Genus	Species	Infra Rank	Infra Name
Haemodoraceae	<i>Haemodorum</i>	<i>laxum</i>		
Haemodoraceae	<i>Haemodorum</i>	<i>simplex</i>		
Haemodoraceae	<i>Haemodorum</i>	<i>spicatum</i>		
Haemodoraceae	<i>Phlebocarya</i>	<i>ciliata</i>		
Haloragaceae	<i>Glischrocaryon</i>	<i>aureum</i>		
Hemerocallidaceae	<i>Agrostocrinum</i>	<i>scabrum</i>		
Hemerocallidaceae	<i>Caesia</i>	<i>micrantha</i>		
Hemerocallidaceae	<i>Caesia</i>	<i>occidentalis</i>		
Hemerocallidaceae	<i>Tricoryne</i>	<i>humilis</i>		
Iridaceae	<i>Patersonia</i>	<i>babionoides</i>		
Iridaceae	<i>Patersonia</i>	<i>occidentalis</i>		
Iridaceae	<i>Patersonia</i>	<i>pygmaea</i>		
Juncaceae	<i>Juncus</i>	<i>pallidus</i>		
Lamiaceae	* <i>Lavandula</i>	<i>stoechas</i>		
Lamiaceae	<i>Hemiandra</i>	<i>pungens</i>		
Lamiaceae	<i>Hemigenia</i>	<i>pritzelii</i>		
Lauraceae	<i>Cassytha</i>	<i>flava</i>		
Lauraceae	<i>Cassytha</i>	<i>glabella</i>		
Lauraceae	<i>Cassytha</i>	<i>racemosa</i>	forma	<i>pilosa</i>
Lindsaeaceae	<i>Lindsaea</i>	<i>linearis</i>		
Loganiaceae	<i>Orianthera</i>	<i>serpyllifolia</i>	subsp.	<i>serpyllifolia</i>
Loganiaceae	<i>Phyllangium</i>	<i>paradoxum</i>		
Loranthaceae	<i>Nuytsia</i>	<i>floribunda</i>		
Myrtaceae	<i>Astartea</i>	<i>scoparia</i>		
Myrtaceae	<i>Babingtonia</i>	<i>camphorosmae</i>		
Myrtaceae	<i>Callistemon</i>	<i>glaucus</i>		
Myrtaceae	<i>Calothamnus</i>	<i>lateralis</i>		
Myrtaceae	<i>Calothamnus</i>	<i>lehmannii</i>		
Myrtaceae	<i>Calothamnus</i>	<i>planifolius</i>	var.	<i>pallidifolius</i>
Myrtaceae	<i>Calothamnus</i>	<i>quadrifidus</i>		
Myrtaceae	<i>Calothamnus</i>	<i>sanguineus</i>		
Myrtaceae	<i>Calytrix</i>	<i>flavescens</i>		
Myrtaceae	<i>Calytrix</i>	<i>tenuiramea</i>		
Myrtaceae	<i>Corymbia</i>	<i>calophylla</i>		
Myrtaceae	<i>Darwinia</i>	<i>oederoides</i>		
Myrtaceae	<i>Eremaea</i>	<i>pauciflora</i>		
Myrtaceae	<i>Eucalyptus</i>	<i>decipiens</i>	subsp.	<i>decipiens</i>
Myrtaceae	<i>Eucalyptus</i>	<i>marginata</i>	subsp.	<i>marginata</i>
Myrtaceae	<i>Eucalyptus</i>	<i>rudis</i>	subsp.	<i>rudis</i>
Myrtaceae	<i>Eucalyptus</i>	<i>wandoo</i>		
Myrtaceae	<i>Hypocalymma</i>	<i>angustifolium</i>		
Myrtaceae	<i>Hypocalymma</i>	<i>strictum</i>		
Myrtaceae	<i>Kunzea</i>	<i>glabrescens</i>		
Myrtaceae	<i>Kunzea</i>	<i>micrantha</i>	subsp.	<i>micrantha</i>
Myrtaceae	<i>Kunzea</i>	<i>recurva</i>		
Myrtaceae	<i>Kunzea</i>	<i>sulphurea</i>		
Myrtaceae	<i>Leptospermum</i>	<i>erubescens</i>		
Myrtaceae	<i>Melaleuca</i>	<i>incana</i>	subsp.	<i>incana</i>
Myrtaceae	<i>Melaleuca</i>	<i>preissiana</i>		
Myrtaceae	<i>Melaleuca</i>	<i>subtrigona</i>		

Family	Genus	Species	Infra Rank	Infra Name
Myrtaceae	<i>Melaleuca</i>	<i>trichophylla</i>		
Myrtaceae	<i>Pericalymma</i>	<i>ellipticum</i>	var.	<i>ellipticum</i>
Myrtaceae	<i>Rinzia</i>	<i>fumana</i>		
Myrtaceae	<i>Taxandria</i>	<i>linearifolia</i>		
Myrtaceae	<i>Tetrapora</i>	<i>glomerata</i>		
Myrtaceae	<i>Verticordia</i>	<i>densiflora</i>	var.	<i>densiflora</i>
Myrtaceae	<i>Verticordia</i>	<i>densiflora</i>	var.	<i>cespitosa</i>
Myrtaceae	<i>Verticordia</i>	<i>lindleyi</i>	subsp.	<i>purpurea</i>
Olacaceae	<i>Olax</i>	<i>benthamiana</i>		
Orchidaceae	* <i>Disa</i>	<i>bracteata</i>		
Orchidaceae	<i>Caladenia</i>	<i>flava</i>		
Orchidaceae	<i>Drakaea</i>		sp.	indet
Orchidaceae	<i>Orchidaceae</i>		sp.	indet
Orchidaceae	<i>Pterostylis</i>		sp.	<i>crinkled leaf</i>
Orchidaceae	<i>Pterostylis</i>		sp.	indet
Orchidaceae	<i>Thelymitra</i>	<i>crinita</i>		
Orchidaceae	<i>Thelymitra</i>	<i>flexuosa</i>		
Orchidaceae	<i>Thelymitra</i>	<i>graminea</i>		
Orchidaceae	<i>Thelymitra</i>		sp.	indet
Orobanchaceae	* <i>Parentucellia</i>	<i>latifolia</i>		
Phyllanthaceae	<i>Poranthera</i>	<i>microphylla</i>		
Pinaceae	* <i>Pinus</i>	<i>radiata</i>		
Pittosporaceae	<i>Billardiera</i>	<i>heterophylla</i>		
Pittosporaceae	<i>Billardiera</i>	<i>fusiformis</i>		
Pittosporaceae	<i>Billardiera</i>	<i>laxiflora</i>		
Pittosporaceae	<i>Billardiera</i>	<i>variifolia</i>		
Poaceae	* <i>Aira</i>	<i>caryophylla</i>		
Poaceae	* <i>Aira</i>	<i>cupaniana</i>		
Poaceae	* <i>Aira</i>	<i>praecox</i>		
Poaceae	* <i>Briza</i>	<i>maxima</i>		
Poaceae	* <i>Briza</i>	<i>minor</i>		
Poaceae	* <i>Pentameris</i>	<i>airoides</i>		
Poaceae	* <i>Vulpia</i>	<i>bromoides</i>		
Poaceae	<i>Amphipogon</i>	<i>debilis</i>		
Poaceae	<i>Amphipogon</i>	<i>turbinatus</i>		
Poaceae	<i>Austrostipa</i>	<i>compressa</i>		
Poaceae	<i>Austrostipa</i>	<i>mollis</i>		
Poaceae	<i>Neurachne</i>	<i>alopecuroidea</i>		
Poaceae	<i>Rytidosperma</i>	<i>caespitosa</i>		
Poaceae	<i>Rytidosperma</i>	<i>setaceum</i>		
Poaceae	<i>Rytidosperma</i>	<i>setaceum</i>		
Poaceae	<i>Tetrarrhena</i>	<i>laevis</i>		
Polygalaceae	<i>Comesperma</i>	<i>calymega</i>		
Polygonaceae	<i>Persicaria</i>	<i>prostrata</i>		
Primulaceae	* <i>Lysimachia</i>	<i>arvensis</i>		
Proteaceae	<i>Adenanthos</i>	<i>obovatus</i>		
Proteaceae	<i>Banksia</i>	<i>attenuata</i>		
Proteaceae	<i>Banksia</i>	<i>bipinnatifida</i>		
Proteaceae	<i>Banksia</i>	<i>dallanneyi</i>		
Proteaceae	<i>Banksia</i>	<i>grandis</i>		

Family	Genus	Species	Infra Rank	Infra Name
Proteaceae	<i>Banksia</i>	<i>ilicifolia</i>		
Proteaceae	<i>Banksia</i>	<i>littoralis</i>		
Proteaceae	<i>Banksia</i>	<i>meisneri</i>	subsp.	<i>meisneri</i>
Proteaceae	<i>Banksia</i>	<i>sessilis</i>	var.	<i>sessilis</i>
Proteaceae	<i>Conospermum</i>	<i>capitatum</i>	subsp.	<i>glabratum</i>
Proteaceae	<i>Conospermum</i>	<i>flexuosum</i>		
Proteaceae	<i>Grevillea</i>	<i>quercifolia</i>		
Proteaceae	<i>Hakea</i>	<i>ceratophylla</i>		
Proteaceae	<i>Hakea</i>	<i>lissocarpha</i>		
Proteaceae	<i>Hakea</i>	<i>prostrata</i>		
Proteaceae	<i>Hakea</i>	<i>ruscifolia</i>		
Proteaceae	<i>Hakea</i>	<i>sulcata</i>		
Proteaceae	<i>Hakea</i>	<i>varia</i>		
Proteaceae	<i>Persoonia</i>	<i>longifolia</i>		
Proteaceae	<i>Petrophile</i>	<i>filifolia</i>	subsp.	<i>filifolia</i>
Proteaceae	<i>Petrophile</i>	<i>linearis</i>		
Proteaceae	<i>Stirlingia</i>	<i>seselifolia</i>		
Proteaceae	<i>Synaphea</i>	<i>floribunda</i>		
Proteaceae	<i>Synaphea</i>	<i>obtusata</i>		
Proteaceae	<i>Xylomelum</i>	<i>occidentale</i>		
Restionaceae	<i>Chordifex</i>	<i>laxus</i>		
Restionaceae	<i>Cytogonidium</i>	<i>leptocarpoides</i>		
Restionaceae	<i>Desmocladius</i>	<i>fasciculatus</i>		
Restionaceae	<i>Desmocladius</i>	<i>flexuosus</i>		
Restionaceae	<i>Hypolaena</i>	<i>exsulca</i>		
Restionaceae	<i>Leptocarpus</i>	<i>tenax</i>		
Restionaceae	<i>Loxocarya</i>	<i>cinerea</i>		
Restionaceae	<i>Restionaceae</i>		sp.	indet
Restionaceae	<i>Tremula</i>	<i>tremulina</i>		
Rhamnaceae	<i>Trymalium</i>	<i>ledifolium</i>		
Rubiaceae	<i>Opercularia</i>	<i>hispidula</i>		
Rutaceae	<i>Boronia</i>	<i>crenulata</i>	subsp.	<i>crenulata</i>
Rutaceae	<i>Boronia</i>	<i>megastigma</i>		
Rutaceae	<i>Boronia</i>	<i>spathulata</i>		
Rutaceae	<i>Cyanothamnus</i>		cf.	<i>tenuis</i>
Rutaceae	<i>Cyanothamnus</i>	<i>ramosus</i>	subsp.	<i>anethifolius</i>
Stylidiaceae	<i>Levenhookia</i>	<i>pusilla</i>		
Stylidiaceae	<i>Levenhookia</i>	<i>stipitata</i>		
Stylidiaceae	<i>Stylidium</i>	<i>amoenum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>ciliatum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>crassifolium</i>		
Stylidiaceae	<i>Stylidium</i>	<i>despectum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>dichotomum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>diversifolium</i>		
Stylidiaceae	<i>Stylidium</i>	<i>piliferum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>plantagineum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>pulchellum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>repens</i>		
Stylidiaceae	<i>Stylidium</i>	<i>schoenoides</i>		
Stylidiaceae	<i>Stylidium</i>	<i>spathulatum</i>		



Family	Genus	Species	Infra Rank	Infra Name
Stylidiaceae	<i>Stylidium</i>	<i>stenooides</i>		
Stylidiaceae	<i>Stylidium</i>	<i>tenue</i>		
Stylidiaceae	<i>Stylidium</i>	<i>uniflorum</i>		
Stylidiaceae	<i>Stylidium</i>	<i>violaceum</i>		
Stylidiaceae	<i>Stylidium</i>		sp.	indet
Thymelaeaceae	<i>Pimelea</i>	<i>lehmanniana</i>	subsp.	<i>nervosa</i>
Thymelaeaceae	<i>Pimelea</i>		sp.	indet
Violaceae	<i>Hybanthus</i>	<i>floribundus</i>	subsp.	<i>floribundus</i>
Xanthorrhoeaceae	<i>Chamaescilla</i>	<i>corymbosa</i>		
Xanthorrhoeaceae	<i>Xanthorrhoea</i>	<i>brunonis</i>		
Xanthorrhoeaceae	<i>Xanthorrhoea</i>	<i>gracilis</i>		
Xanthorrhoeaceae	<i>Xanthorrhoea</i>	<i>preissii</i>		
Zamiaceae	<i>Macrozamia</i>	<i>riedlei</i>		

# APPENDIX 7

Records for significant flora recorded from the study area

Genus	Species	Infra Rank	Infra Name	Easting	Northing
<i>Acacia</i>	<i>semitrullata</i>			431290	6301984
<i>Acacia</i>	<i>semitrullata</i>			431391	6301549
<i>Acacia</i>	<i>semitrullata</i>			431365	6301793
<i>Acacia</i>	<i>semitrullata</i>			431358	6301784
<i>Acacia</i>	<i>semitrullata</i>			431376	6301828
<i>Acacia</i>	<i>semitrullata</i>			431351	6301837
<i>Acacia</i>	<i>semitrullata</i>			431359	6301663
<i>Acacia</i>	<i>semitrullata</i>			431363	6301547
<i>Acacia</i>	<i>semitrullata</i>			431389	6301521
<i>Acacia</i>	<i>semitrullata</i>			431457	6301481
<i>Acacia</i>	<i>semitrullata</i>			431461	6301486
<i>Acacia</i>	<i>semitrullata</i>			431474	6301467
<i>Acacia</i>	<i>semitrullata</i>			431478	6301499
<i>Acacia</i>	<i>semitrullata</i>			431468	6301517
<i>Acacia</i>	<i>semitrullata</i>			431462	6301524
<i>Acacia</i>	<i>semitrullata</i>			431458	6301547
<i>Acacia</i>	<i>semitrullata</i>			431383	6301562
<i>Acacia</i>	<i>semitrullata</i>			431322	6301561
<i>Acacia</i>	<i>semitrullata</i>			31353	6301776
<i>Acacia</i>	<i>semitrullata</i>			431365	6301793
<i>Acacia</i>	<i>semitrullata</i>			431387	6301792
<i>Acacia</i>	<i>semitrullata</i>			431384	6301777
<i>Acacia</i>	<i>semitrullata</i>			431372	6301817
<i>Acacia</i>	<i>semitrullata</i>			431362	6301807
<i>Acacia</i>	<i>semitrullata</i>			431498	6301542
<i>Acacia</i>	<i>semitrullata</i>			431426	6301631
<i>Acacia</i>	<i>semitrullata</i>			431378	6301665
<i>Acacia</i>	<i>semitrullata</i>			431369	6301695
<i>Acacia</i>	<i>semitrullata</i>			431330	6301770
<i>Acacia</i>	<i>semitrullata</i>			431338	6301776
<i>Acacia</i>	<i>semitrullata</i>			431373	6301846
<i>Acacia</i>	<i>semitrullata</i>			431365	6301846
<i>Acacia</i>	<i>semitrullata</i>			431349	6301875
<i>Acacia</i>	<i>semitrullata</i>			431400	6301768
<i>Acacia</i>	<i>semitrullata</i>			431303	6301599
<i>Acacia</i>	<i>semitrullata</i>			431504	6301500
<i>Acacia</i>	<i>semitrullata</i>			431351	6301548
<i>Acacia</i>	<i>semitrullata</i>			431420	6301460
<i>Acacia</i>	<i>semitrullata</i>			431447	6301558
<i>Acacia</i>	<i>semitrullata</i>			430938	6301327
<i>Acacia</i>	<i>semitrullata</i>			431396	6301972
<i>Acacia</i>	<i>semitrullata</i>			431375	6301568
<i>Pultenaea</i>	<i>skinneri</i>			431772	6303875
<i>Pultenaea</i>	<i>skinneri</i>			431754	6303902
<i>Pultenaea</i>	<i>skinneri</i>			431743	6303863
<i>Pultenaea</i>	<i>skinneri</i>			431751	6303916
<i>Pultenaea</i>	<i>skinneri</i>			431365	6301793
<i>Pultenaea</i>	<i>skinneri</i>			431365	6301793
<i>Pultenaea</i>	<i>skinneri</i>			431734	6303910
<i>Acacia</i>	<i>trigonophylla</i>			431282	6302632
<i>Aotus</i>	<i>procumbens</i>			431350	6301782

# APPENDIX 8

Records for introduced species recorded  
from the study area

Genus	Species	Infra Rank	Infra Name	Easting	Northing
*Acacia	<i>pycnantha</i>				
*Acacia	<i>pycnantha</i>				
*Acacia	<i>pycnantha</i>				
*Aira	<i>caryophyllea</i>			431747	6303961
*Aira	<i>caryophyllea</i>			430508	6303029
*Aira	<i>caryophyllea</i>			431059	6302934
*Aira	<i>caryophyllea</i>			430646	6303095
*Aira	<i>caryophyllea</i>			431391	6301549
*Aira	<i>caryophyllea</i>			431290	6301984
*Aira	<i>caryophyllea</i>			431248	6304363
*Aira	<i>caryophyllea</i>			431112	6304522
*Aira	<i>caryophyllea</i>			430916	6303448
*Aira	<i>caryophyllea</i>			430528	6303555
*Aira	<i>caryophyllea</i>			430458	6303422
*Aira	<i>caryophyllea</i>			430784	6303028
*Aira	<i>caryophyllea</i>			430556	6304606
*Aira	<i>cupaniana</i>			431365	6301793
*Aira	<i>praecox</i>			430916	6303448
*Asparagus	<i>asparagoides</i>			431112	6304522
*Briza	<i>maxima</i>			431059	6302934
*Briza	<i>maxima</i>			431290	6301984
*Briza	<i>maxima</i>			431003	6303049
*Briza	<i>minor</i>			431059	6302934
*Briza	<i>minor</i>			430855	6303200
*Briza	<i>minor</i>			430566	6303225
*Conyza	<i>bonariensis</i>			431282	6302632
*Cyperus	<i>tenellus</i>			431905	6303853
*Disa	<i>bracteata</i>			430508	6303029
*Disa	<i>bracteata</i>			431396	6301972
*Disa	<i>bracteata</i>			431282	6302632
*Disa	<i>bracteata</i>			430566	6303225
*Disa	<i>bracteata</i>			430662	6303467
*Hypochaeris	<i>glabra</i>			431747	6303961
*Hypochaeris	<i>glabra</i>			430508	6303029
*Hypochaeris	<i>glabra</i>			430646	6303095
*Hypochaeris	<i>glabra</i>			431077	6303033
*Hypochaeris	<i>glabra</i>			431365	6301793
*Hypochaeris	<i>glabra</i>			431391	6301549
*Hypochaeris	<i>glabra</i>			431290	6301984
*Hypochaeris	<i>glabra</i>			431282	6302632
*Hypochaeris	<i>glabra</i>			431779	6303841
*Hypochaeris	<i>glabra</i>			430816	6303862
*Hypochaeris	<i>glabra</i>			430528	6303555
*Hypochaeris	<i>glabra</i>			430458	6303422
*Hypochaeris	<i>glabra</i>			430855	6303200
*Hypochaeris	<i>glabra</i>			430566	6303225
*Hypochaeris	<i>glabra</i>			430573	6303816
*Hypochaeris	<i>glabra</i>			430662	6303467
*Isolepis	<i>prolifera</i>			432107	6303851
*Lavandula	<i>stoechas</i>			431351	6301407
*Lupinus	<i>angustifolius</i>			431447	6301558
*Lysimachia	<i>arvensis</i>			431059	6302934
*Lysimachia	<i>avensis</i>			431112	6304522
*Monopsis	<i>debilis</i>			431059	6302934
*Parentucellia	<i>latifolia</i>			430566	6303225

Genus	Species	Infra Rank	Infra Name	Easting	Northing
*Pentameris	<i>airoides</i>			431747	6303961
*Pentameris	<i>airoides</i>			431747	6303961
*Pentameris	<i>airoides</i>			431059	6302934
*Pentameris	<i>airoides</i>			430646	6303095
*Pentameris	<i>airoides</i>			431077	6303033
*Pentameris	<i>airoides</i>			431365	6301793
*Pentameris	<i>airoides</i>			431290	6301984
*Pentameris	<i>airoides</i>			430916	6303448
*Pentameris	<i>airoides</i>			430816	6303862
*Pentameris	<i>airoides</i>			430458	6303422
*Pentameris	<i>airoides</i>			430458	6303422
*Pentameris	<i>airoides</i>			430855	6303200
*Pentameris	<i>airoides</i>			430855	6303200
*Pentameris	<i>airoides</i>			430566	6303225
*Pentameris	<i>airoides</i>			430662	6303467
*Pentameris	<i>airoides</i>			430662	6303467
*Pentameris	<i>airoides</i>			431003	6303049
*Pinus	<i>radiata</i>			431059	6302934
*Pinus	<i>radiata</i>			431077	6303033
*Pinus	<i>radiata</i>			431396	6301972
*Pinus	<i>radiata</i>			431282	6302632
*Pinus	<i>radiata</i>			431779	6303841
*Pinus	<i>radiata</i>			430784	6303028
*Pinus	<i>radiata</i>			431003	6303049
*Pseudognaphalium	<i>luteoalbum</i>			431282	6302632
*Sonchus	<i>oleraceus</i>			431059	6302934
*Ursinia	<i>anthemoides</i>			431747	6303961
*Ursinia	<i>anthemoides</i>			430508	6303029
*Ursinia	<i>anthemoides</i>			430646	6303095
*Ursinia	<i>anthemoides</i>			431365	6301793
*Ursinia	<i>anthemoides</i>			431391	6301549
*Ursinia	<i>anthemoides</i>			431290	6301984
*Ursinia	<i>anthemoides</i>			431779	6303841
*Ursinia	<i>anthemoides</i>			430816	6303862
*Ursinia	<i>anthemoides</i>			430528	6303555
*Ursinia	<i>anthemoides</i>			430458	6303422
*Ursinia	<i>anthemoides</i>			430855	6303200
*Ursinia	<i>anthemoides</i>			430566	6303225
*Ursinia	<i>anthemoides</i>			430662	6303467
*Ursinia	<i>anthemoides</i>			431003	6303049
*Vellereophyton	<i>dealbatum</i>			430662	6303467
*Vulpia	<i>bromoides</i>			431059	6302934
*Vulpia	<i>bromoides</i>			430646	6303095
*Vulpia	<i>bromoides</i>			431077	6303033
*Vulpia	<i>bromoides</i>			431365	6301793
*Vulpia	<i>bromoides</i>			430916	6303448
*Vulpia	<i>bromoides</i>			430916	6303448
*Vulpia	<i>bromoides</i>			430458	6303422
*Vulpia	<i>bromoides</i>			430784	6303028
*Vulpia	<i>bromoides</i>			430855	6303200
*Vulpia	<i>bromoides</i>			430566	6303225
*Vulpia	<i>bromoides</i>			430662	6303467
*Vulpia	<i>bromoides</i>			431003	6303049
*Wahlenbergia	<i>capensis</i>			431351	6301407

# APPENDIX 9

Species by site matrix for the study area













# APPENDIX 10

Representative photographs, raw data and total flora spreadsheets  
recorded for the 36 quadrats assessed within the study area

## STUDY SITES

Site	Landform	Broad Floristic Formation	Vegetation type	Condition	Aspect	Slope	Soil Colour	Soil Type	Last Fire	Disturbance	Comments	Easting	Northing
PC-01	Wetland	Melaleuca Low Woodland A	Low Woodland A of Melaleuca preissiana, (Eucalyptus rudis subsp. rudis) over Dwarf Scrub D of Tremula tremulina, Cyathochaeta avenacea, Hypocalymma angustifolium, Pericalymma ellipticum var. ellipticum and Hibbertia stellaris with Open Scrub of Taxandria linearifolia over Open Dwarf Scrub C of Pericalymma ellipticum var. ellipticum, Astartea scoparia and Hypocalymma angustifolium	Very Good	Flat	Flat	Grey	Light Clay	Old (6+ yr)	Road/ Access Track	Fire - Most of unit is burnt; Disturbance - Road/ Access track, Weeds	431003	6303049
PC-02	Hillcrest and Upper Hillslope	Allocasuarina Forest	Forest of Allocasuarina fraseriana and Eucalyptus marginata subsp. marginata over Open Low Woodland B of Xylomelum occidentale, Allocasuarina fraseriana, Eucalyptus marginata subsp. marginata and Banksia grandis over Open Dwarf Scrub D of Bossiaea ornata, Hibbertia amplexicaulis and Hibbertia vaginata	Very Good	South	Low	Grey	Sand	Recent (0 to 2 yr)	Frequent Fire	Disturbance - Frequent Fire, Logging	430556	6304606
PC-03	Minor Drainage Line	Melaleuca Low Woodland A	Low Woodland A of Melaleuca preissiana over Dwarf Scrub C of Astartea scoparia, Melaleuca incana subsp. incana and Hakea varia over Very Open Low Sedges of Cyathochaeta avenacea	Excellent	East	Low	Cream	Silty Clay Loam	Recent (0 to 2 yr)	Frequent Fire	Disturbance - Grazing by Kangaroos, Frequent Fire	430662	6303467
PC-04	Footslope	Xanthorrhoea Dense Heath A	Dense Heath A of Xanthorrhoea preissii and Xylomelum occidentale with Woodland of Eucalyptus marginata subsp. marginata over Dwarf Scrub B of Calytrix flavescens, Babingtonia camphorosmae, Dasypogon bromeliifolius and Bossiaea eriocarpa with Open Low Woodland B of Xylomelum occidentale and Nuytsia floribunda	Excellent	South	Low	Grey	Sand	Recent (0 to 2 yr)	Frequent Fire		430573	6303816
PC-05	Sand Plain	Dasypogon Open Low Sedges	Open Low Sedges of Dasypogon bromeliifolius with Open Low Woodland A of Melaleuca preissiana over Open Dwarf Scrub D of Adenanthos obovatus	Very Good	Flat	Flat	Grey	Loamy Sand	Recent (0 to 2 yr)	Frequent Fire	Disturbance - Grazing by Kangaroos, Frequent Fire, Weeds	430566	6303225
PC-06	Hillcrest and Upper Hillslope	Allocasuarina Forest	Forest of Allocasuarina fraseriana and Eucalyptus marginata subsp. marginata over Open Dwarf Scrub of Bossiaea ornata and Hibbertia amplexicaulis with Open Scrub of Banksia grandis	Very Good	South	Low	Grey	Sand	Moderate (3 to 5 yr)	Frequent Fire	Disturbance - Frequent Fire, Timber ????	431420	6304163
PC-07	Wetland	Hypocalymma Low Heath D	Low Heath D of Hypocalymma angustifolium and Verticordia densiflora var. densiflora with Open Low Woodland A of Melaleuca preissiana over Open Dwarf Scrub C of Adenanthos obovatus and Hakea varia over Very Open Low Sedges of Dasypogon bromeliifolius	Very Good	Flat	Flat	Grey	Loamy Sand	Recent (0 to 2 yr)	Frequent Fire	Disturbance - Grazing by Kangaroos, Frequent Fire, Road/ Access Track	430855	6303200
PC-08	Hillcrest and Upper Hillslope	Allocasuarina Forest	Forest of Allocasuarina fraseriana and Eucalyptus marginata subsp. marginata over Dwarf Scrub D of Bossiaea ornata and Trymalium ledifolium with Open Scrub of Allocasuarina fraseriana, Eucalyptus marginata subsp. marginata and Persoonia longifolia	Very Good	North	Low	Grey	Sand	Moderate (3 to 5 yr)	Other	Disturbance - Timber ????	430979	6301333
PC-09	Wetland	Hypocalymma Low Heath D	Low Heath D of Hypocalymma angustifolium and Pericalymma ellipticum var. ellipticum with Low Woodland A of Melaleuca preissiana and Eucalyptus rudis subsp. rudis over Dwarf Scrub C of Astartea scoparia with Open Low Scrub B of Taxandria linearifolia over Very Open Sedges of Cyathochaeta avenacea, Tremula tremulina and Hypolaena exsulca	Excellent	Flat	Flat	Grey	Sand	Recent (0 to 2 yr)	Road/ Access Track	Disturbance - Grazing by Kangaroos, Road/ Access Track	430784	6303028
PC-10	Footslope	Allocasuarina Forest	Forest of Allocasuarina fraseriana and Eucalyptus marginata subsp. marginata over Low Heath D of Bossiaea eriocarpa, Calytrix flavescens and Hibbertia vaginata with Open Low Woodland B of Xylomelum occidentale, Allocasuarina fraseriana and Eucalyptus marginata subsp. marginata over Open Low Scrub A of Xanthorrhoea preissii, Xylomelum occidentale and Persoonia longifolia	Very Good	North	Low	Grey	Sand	Moderate (3 to 5 yr)	Other	Disturbance - Timber ????	430979	6301478
PC-11	Minor Drainage Line	Melaleuca Low Woodland A	Low Woodland A of Melaleuca preissiana (Banksia littoralis) over Dwarf Scrub C of Astartea scoparia over Dwarf Scrub D of Hypocalymma angustifolium and Astartea scoparia over Very Open Sedges of Cyathochaeta avenacea	Very Good	East	Low	Grey	Loamy Sand	Recent (0 to 2 yr)	Road/ Access Track	Disturbance - Grazing, Road/ Access Track, Weeds	430458	6303422
PC-12	Hillslope	Eucalyptus Low Forest	Low Forest of Eucalyptus marginata subsp. marginata and Corymbia calophylla over Low Scrub A of Xanthorrhoea preissii Over Dwarf Scrub D of Bossiaea ornata, Hakea lissocarpa and Banksia dallanneyi	Excellent	South	Low	Brown	Loamy Sand	Recent (0 to 2 yr)	Other	Disturbance - Logging	430437	6304120
PC-13	Sand Plain	Eucalyptus Low Open Woodland	Low Open Woodland of Eucalyptus marginata subsp. marginata over Open Low Woodland A of Melaleuca preissiana, Nuytsia floribunda and Eucalyptus marginata subsp. marginata over Open Low Scrub A of Xanthorrhoea preissii over Open Dwarf Scrub C of Xanthorrhoea preissii	Excellent	South	Low	Grey	Sand	Recent (0 to 2 yr)	Frequent Fire	Disturbance - Frequent Fire, Weeds	430528	6303555
PC-14	Hillslope	Bossiaea Low Heath D	Low Heath D of Bossiaea ornata, Banksia dallanneyi (Hibbertia lasiopus and Banksia bipinnatifida) with Forest of Eucalyptus marginata subsp. marginata and Low Scrub A of Xanthorrhoea preissii	Very Good	South	Low	Brown	Loamy Sand	Moderate (3 to 5 yr)	Mining Exploration	Disturbance - Mining Exploration, Logging	431164	6303703

Site	Landform	Broad Floristic Formation	Vegetation type	Condition	Aspect	Slope	Soil Colour	Soil Type	Last Fire	Disturbance	Comments	Easting	Northing
PC-15	Sand Plain	Melaleuca Low Woodland A	Low Woodland A of Melaleuca preissiana and Eucalyptus marginata over Open Low Sedges of Dasypogon bromeliifolius with Open Woodland of Eucalyptus marginata subsp. marginata over Open Dwarf Scrub C of Xanthorrhoea pressii over Open Dwarf Scrub D of Bossiaea eriocarpa, Hypocalymma angustifolium, Babingtonia camphorosmae	Very Good	Flat	Flat	Grey	Loamy Sand	Recent (0 to 2 yr)	Mining Exploration	Disturbance - Mining Exploration, Road/ Access Track, Haul Road nearby	430816	6303862
PC-16	Footslope	Dasypogon Low Sedges	Low Sedges of Dasypogon bromeliifolius, Desmodium fasciculatum and Phlebocarya ciliata with Dwarf Scrub D of Hypocalymma angustifolium with Open Woodland of Eucalyptus marginata subsp. marginata over Low Open Woodland of Melaleuca preissiana, Eucalyptus marginata and (Nuytsia floribunda)	Very Good	South/ East	Low	Grey	Loamy Sand	Old (6+ yr)	Mining Exploration	Disturbance - Mining Exploration, Road/ Access Track, Weeds, Historical Logging, Wood Stock Piles	431779	6303841
PC-17	Wetland	Hypocalymma Dwarf Scrub D	Dwarf Scrub D of Hypocalymma angustifolium with Open Low Woodland A of Melaleuca preissiana and (Nuytsia floribunda) over Open Dwarf Scrub C of Adenanthos obovatus and Kunzea recurva over Very Open Sedges of Dasypogon bromeliifolius	Very Good	Flat	Flat	Grey	Loamy Sand	Recent (0 to 2 yr)	Road/ Access Track	Disturbance Road/ Access Track, Weeds, T1 levels of Kangaroo Grazing	430916	6303448
PC-18	Footslope	Eucalyptus Tree Mallee	Tree Mallee of Eucalyptus decipiens subsp. decipiens over Open Low Scrub A of Xanthorrhoea preissii, Hakea prostrata, Kunzea glabrescens and (Acacia saligna) over Open Dwarf Scrub D of Bossiaea eriocarpa and Hypocalymma angustifolium	Good	North/ West	Low	Brown	Loamy Sand	Moderate (3 to 5 yr)	Weed Invasion	Disturbance - Weeds, Pigs	431112	6304522
PC-19	Wetland	Melaleuca Low Forest B	Low Forest B of Melaleuca preissiana (*Pinus radiata) over Open Scrub of Melaleuca incana subsp. incana over Low Open Scrub A of Melaleuca incana subsp. incana and Astartea scoparia	Good	Flat	Flat	Grey	Heavy Clay	Old (6+ yr)	Weed Invasion	Disturbance - Weeds, Grazing, Rehab surrounding, Pigs	431282	6302632
PC-20	Hillcrest and Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata subsp. marginata over Dwarf Scrub D of Xanthorrhoea gracilis, Bossiaea ornata and Banksia dallanneyi (Trymalium ledifolium)	Very Good	North	Low	Grey	Sand	Recent (0 to 2 yr)	Other	Disturbance - Logging	431248	6304363
PC-21	Wetland	Tremula Tall Sedges	Tall Sedges of Tremula tremulina with Dwarf Scrub C of Pericalymma ellipticum var. ellipticum (Hypocalymma angustifolium, Hakea ceratophylla, Hakea sulcata) over Dwarf Scrub D of Hypocalymma angustifolium (Pericalymma ellipticum var. ellipticum)	Very Good	Flat	Flat	Grey	Clayey Sand	Old (6+ yr)	Mining Exploration	Disturbance - Mining Exploration, Road/ Access Track, Weeds, Historical Logging, Wood Stock Piles	431396	6301972
PC-22	Sand Plain	Dasypogon Low Sedges	Low Sedges of Dasypogon bromeliifolius with Woodland of Eucalyptus marginata subsp. marginata (*Pinus radiata) over Dwarf Scrub D of Hypocalymma angustifolium and Bossiaea eriocarpa with Open Low Woodland A of Melaleuca preissiana and Eucalyptus marginata subsp. marginata over Open Low Scrub A of Xanthorrhoea preissii and Kunzea glabrescens	Good	Flat	Flat	Grey	Sand	Old (6+ yr)	Mining Exploration	Disturbance - Mining Exploration, Road/ Access Track Weeds, Logged, Ground distance	431290	6301984
PC-23	Wetland	Tremula Tall Sedges	Tall Sedges of Tremula tremulina with Low Woodland A of Melaleuca preissiana over Dwarf Scrub D of Hypocalymma angustifolium, Pericalymma ellipticum var. ellipticum and Adenanthos obovatus over Open Low Sedges of Cyathochaeta avenacea, Dasypogon bromeliifolius and Cytogonidium leptocarpoides	Excellent	Flat	Flat	Grey	Clayey Sand	Old (6+ yr)	Mining Exploration	Disturbance - Mining Exploration, Weeds	431531	6301694
PC-24	Sand Plain	Kunzea Scrub	Scrub of Kunzea glabrescens over Low Scrub B of Eremaea pauciflora over Low Scrub C of Eremaea pauciflora with Low Open Woodland A of Banksia attenuata and Banksia ilicifolia	Very Good	Flat	Flat	Grey	Sand	Old (6+ yr)	Road/ Access Track	Disturbance - Road/ Access Track, Weeds	431391	6301549
PC-25	Sand Plain	Eremaea Heath B	Heath B of Eremaea pauciflora with Scrub of Kunzea glabrescens over Open Low Sedges of Lyginea imberbis and Hypolaena exsulca with Open Dwarf Scrub D of Dasypogon bromeliifolius, Melaleuca subtrigona, Calytrix flavescens and Eremaea pauciflora	Good	East	Low	Grey	Sand	Old (6+ yr)	Mining Exploration	Disturbance - Mining Exploration, Road/ Access Track, Weeds, Historical logging, Soil disturbance	431365	6301793
PC-26	Hillslope	Bossiaea Low Heath D	Low Heath D of Bossiaea eriocarpa, Leucopogon oxycedrus, Hibbertia subvaginata and Petrophile linearis with Low Woodland A of Allocasuarina fraseriana, Eucalyptus marginata subsp. marginata, Xylomelum occidentale and Banksia attenuata with Open Woodland of Eucalyptus marginata subsp. marginata and Allocasuarina fraseriana over Open Low Woodland B of Xylomelum occidentale, Allocasuarina fraseriana, Banksia attenuata, Persoonia longifolia and Nuytsia floribunda	Excellent	North	Low	Grey	Sand	Moderate (3 to 5 yr)	Road/ Access Track	Disturbance - Road/ Access Track, Logging	431345	6301300
PC-27	Wetland	Melaleuca Low Forest A	Low Forest A of Melaleuca preissiana over Low Heath D of Hypocalymma angustifolium over Dwarf Scrub C of Hypocalymma angustifolium over Open Tall Sedges of Tremula tremulina	Very Good	Flat	Flat	Grey	Light Clay	Old (6+ yr)	Road/ Access Track	Disturbance - Road/ Access Track, Weeds, Rehab Veg nearby, Heavy Grazing by Kangaroos	431077	6303033

Site	Landform	Broad Floristic Formation	Vegetation type	Condition	Aspect	Slope	Soil Colour	Soil Type	Last Fire	Disturbance	Comments	Easting	Northing
PC-28	Wetland	Melaleuca Low Forest A	Low Forest A of Melaleuca preissiana over Low Heath D of Hypocalymma angustifolium with Open Scrub of Kunzea recurva and Astartea scoparia (Melaleuca preissiana) over Very Open Low Sedges of Tremula tremulina and Cyathochaeta avenacea	Very Good	Flat	Flat	Grey	Loamy Sand	Old (6+ yr)	Road/ Access Track	Disturbance - Road/ Access Track, Weeds	430646	6303095
PC-29	Wetland	Taxandria Scrub	Scrub of Taxandria linearifolia and Hakea varia (Acacia celastrifolia) over Low Scrub B of Melaleuca incana subsp. incana and Astartea scoparia over Dwarf Scrub D of Hypocalymma angustifolium and Pericalymma ellipticum var. ellipticum	Very Good	Flat	Flat	Grey	Medium Clay	Old (6+ yr)	Weed Invasion	Disturbance- Weeds, Altered Drainage patterns, Rehab ssp in site	431059	6302934
PC-30	Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata subsp. marginata over Open Low Sedges of Desmocladius fasciculatus with Open Low Scrub A of Xanthorrhoea preissii over Open Dwarf Scrub D of Dasypogon bromeliifolius, Calytrix flavescens, Bossiaea eriocarpa and Hypocalymma angustifolium	Very Good	East	Low	Grey	Loamy Sand	Recent (0 to 2 yr)	Frequent Fire	Disturbance- Grazing by Kangaroos, Frequent Fire, Road/ access Track, Rubbish, Weeds	430508	6303029
PC-31	Sand Plain	Dasypogon Low Sedges	Low Sedges of Phlebocarya ciliata and Hypolaena exsulca with Open Low Woodland B of Melaleuca preissiana and Nuytsia floribunda over Open Low Scrub A of Kunzea glabrescens and Kunzea recurva over Open Dwarf Scrub C of Pericalymma ellipticum var. ellipticum and Kunzea recurva over Open Dwarf Scrub D of Melaleuca trichophylla, Adenanthos obovatus, Dasypogon bromeliifolius and Pericalymma ellipticum var. ellipticum	Good	South/ East	Low	Grey	Sand	Old (6+ yr)	Road/ Access Track	Disturbance - Grazing by Kangaroos, Road/ Access Track, Heavily Logged	431747	6303961
PC-32	Hillslope	Leptospermum Heath B	Heath B of Leptospermum erubescens and Allocasuarina humilis over Dwarf Scrub D of Babingtonia camphorosmae, Leptospermum erubescens and Banksia dallanneyi with Open Low Woodland A of Eucalyptus marginata subsp. marginata over Open Low Scrub B of Leptospermum erubescens and Allocasuarina humilis over Very Open Low Sedges of Mesomelaena tetragona and Lepidosperma pubisquamum	Good	South/ West	Low	Grey	Sandy Clay Loam	Old (6+ yr)	Road/ Access Track	Disturbance - Road/ Access Track, Heavy Historical Logging	432359	6303319
PC-33	Hillcrest and Upper Hillslope	Eucalyptus Woodland	Woodland of Eucalyptus wandoo and Eucalyptus marginata subsp. marginata over Dwarf Scrub D of Banksia dallanneyi and Bossiaea ornata with Open Low Scrub B of Allocasuarina humilis over Open Dwarf Scrub C of Hakea lissocarpha over Very Open Low Sedges of Lepidosperma leptostachyum, Gahnia aristata and Netrostylis sp. Jarrah Forest (R. Davis 7391)	Good	North/ West	Low	Grey	Silty Loam	Old (6+ yr)	Mining Exploration	Upper Hillslope  Disturbance - Mining Exploration, Road/ Access Track, Historical Logging	432094	6303766
PC-34	Hillslope	Leptospermum Thicket	Thicket of Leptospermum erubescens with Woodland of Eucalyptus marginata subsp. marginata over Dwarf Scrub D of Calytrix flavescens, Styphelia erubescens and Leptospermum erubescens over Open Low Sedges of Dasypogon bromeliifolius, Lyginia imberbis and Lepidosperma squamatum with Open Low Scrub B of Xanthorrhoea preissii and Leptospermum erubescens	Good	South/ West	Low	Grey	Loamy Sand	Old (6+ yr)	Mining Exploration	Disturbance - Mining Exploration, Road/ Access Track, Historical Logging	432394	6303246
PC-35	Medium Drainage Line	Melaleuca Low Forest A	Low Forest A of Melaleuca preissiana over Scrub of Taxandria linearifolia, Astartea scoparia and Melaleuca incana subsp. incana over Open Tall Sedges of Cyathochaeta avenacea, Leptocarpus tenax and Machaerina juncea with Open Low Scrub A of Astartea scoparia over Open Dwarf Scrub D of Hypocalymma angustifolium	Good	Flat	Flat	Grey	Medium Clay	Old (6+ yr)	Mining Exploration	Disturbance - Mining exploration, Weed Invasion, Influenced by Mine Water Drainage and possibly Rehab	432283	6303332
PC-36	Sand Plain	Dasypogon Low Sedges	Low Sedges of Hypolaena exsulca and Desmocaldus fasciculatus with Dwarf Scrub C of Hypocalymma angustifolium and Pericalymma ellipticum with Open Woodland of Eucalyptus marginata over Open Low Woodland A of Melaleuca preissiana and Nuytsia floribunda over Open Dwarf Scrub D of Dasypogon bromeliifolius, Adenanthos obovatus, Calytrix flavescens and Calothamnus sanguineus	Very Good	South	Low	Grey	Loamy Sand	Old (6+ yr)	Other	Disturbance - Historical Logging	431962	6303870



## FLORA

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-01	*Briza	maxima			No	Introduced			+	0.1
PC-01	*Pentameris	airoides			No	Introduced			+	0.1
PC-01	*Pinus	radiata			No	Introduced				
PC-01	*Ursinia	antheroides			No	Introduced				
PC-01	*Vulpia	bromoides			No	Introduced			+	0.1
PC-01	Acacia	incurva			No	Introduced			+	0.2
PC-01	Acacia	pulchella	var.	pulchella	No	Native				
PC-01	Acacia		cf.	trigonophylla	No	Native			1	1.5
PC-01	Adenanthos	obovatus			No	Native				
PC-01	Aotus	gracillima			No	Native				
PC-01	Aotus	gracillima			No	Native			+	0.3
PC-01	Astartea	scoparia			No	Native			4	0.5-1
PC-01	Billardiera	heterophylla			No	Native			+	0.2
PC-01	Boronia	megastigma			No	Native			+	0.5-1
PC-01	Boronia	spathulata			No	Native				
PC-01	Caesia	micrantha			No	Native			+	0.1
PC-01	Callistemon	glaucus			No	Native				
PC-01	Conostylis	aculeata			No	Native				
PC-01	Cyathochaeta	avenacea			No	Native			5	0.3
PC-01	Dampiera	pedunculata			No	Native			+	0.1
PC-01	Dampiera		sp.	indet	No	Native				
PC-01	Eucalyptus	rudis	subsp.	rudis	No	Native			1	5
PC-01	Eutaxia	virgata			No	Native			0.25	0.3
PC-01	Goodenia	pulchella	subsp.	Coastal Plain B (L.W. Sage 2336)	No	Native			+	0.1
PC-01	Hakea	sulcata			No	Native			+	1
PC-01	Hibbertia	stellaris			No	Native			+	0.15
PC-01	Hypocalymma	angustifolium			No	Native			15	0.5
PC-01	Kunzea	glabrescens			No	Native				
PC-01	Leptocarpus	tenax			No	Native				
PC-01	Melaleuca	incana	subsp.	incana	No	Native			5	0.5
PC-01	Melaleuca	preissiana			No	Native			15	2-10
PC-01	Mirbelia	dilatata			No	Native			+	1.2
PC-01	Patersonia	occidentalis			No	Native				
PC-01	Pericalymma	ellipticum	var.	ellipticum	No	Native			1	0.4
PC-01	Pterostylis		sp.	indet	No	Native			+	0.1
PC-01	Rhodanthe	citrina			No	Native			+	0.1
PC-01	Rytidosperma	caespitosa			No	Native			+	0.2
PC-01	Taxandria	linearifolia			No	Native			9	0.5-2.5
PC-01	Thelymitra		sp.	indet	No	Native			+	0.2
PC-01	Thysanotus		sp.	indet	No	Native				
PC-01	Tremula	tremulina			No	Native			25	0.5
PC-02	*Aira	caryophyllea			No	Introduced			+	0.1
PC-02	Agrostocrinum	scabrum			No	Native				
PC-02	Allocasuarina	fraseriana			No	Native			30	20
PC-02	Astroloma	pallidum			No	Native			+	0.2
PC-02	Banksia	grandis			No	Native			1	3
PC-02	Boronia	crenulata	subsp.	crenulata	No	Native				
PC-02	Bossiaea	ornata			No	Native			2	0.2
PC-02	Daucus	glochidiatus			No	Native			+	0.1
PC-02	Daviesia	preissii			No	Native				
PC-02	Desmodium	fasciculatus			No	Native			+	0.1
PC-02	Eucalyptus	marginata	subsp.	marginata	No	Native			30	20
PC-02	Gompholobium	preissii			No	Native			0.5	0.1

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-02	Hibbertia	hypericoides			No	Native				
PC-02	Hibbertia	vaginata			No	Native			2	0.2
PC-02	Hovea	chorizemifolia			No	Native			+	0.1
PC-02	Labichea	punctata			No	Native			+	0.1
PC-02	Lagenophora	huegelii			No	Native			+	0.1
PC-02	Lomandra	sericea			No	Native			+	0.2
PC-02	Macrozamia	riedlei			No	Native				
PC-02	Opercularia	hispidula			No	Native			+	0.2
PC-02	Patersonia	babianoides			No	Native				
PC-02	Persoonia	longifolia			No	Native			0.5	2
PC-02	Petrophile	linearis			No	Native			0.5	0.5
PC-02	Senecio	diaschides			No	Native				
PC-02	Stylidium	piliferum			No	Native			+	0.1
PC-02	Tetralia		sp.	Jarrah Forest (R. Davis 7391)	No	Native			1	0.3
PC-02	Tetrarrhena	laevis			No	Native				
PC-02	Xanthorrhoea	preissii			No	Native				
PC-02	Xanthosia	atkinsoniana			No	Native			+	0.1
PC-02	Xanthosia	huegelii			No	Native			+	0.1
PC-02	Xylomelum	occidentale			No	Native			1	3
PC-03	*Disa	bracteata			No	Introduced			+	0.2
PC-03	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-03	*Pentameris	airoides			No	Introduced			+	0.1
PC-03	*Pentameris	airoides			No	Introduced			+	0.1
PC-03	*Ursinia	anthemoides			No	Introduced				
PC-03	*Vellereophyton	dealbatum			No	Introduced			+	0.05
PC-03	*Vulpia	bromoides			No	Introduced			+	0.1
PC-03	Acacia	extensa			No	Native			+	0.5
PC-03	Acacia		cf.	trigonophylla	No	Native			+	0.2
PC-03	Aotus	gracillima			No	Native			+	0.2
PC-03	Astartea	scoparia			No	Native			25	1
PC-03	Caesia	micrantha			No	Native				
PC-03	Calothamnus	lehmannii			No	Native			+	0.2
PC-03	Centrolepis	drummondiana			No	Native				
PC-03	Cyathochaeta	avenacea			No	Native			4	0.2-1
PC-03	Cyperaceae		sp.	indet	No	Native			+	0.2
PC-03	Cyperus	tenellus			No	Native			+	0.1
PC-03	Hakea	varia			No	Native			3	0.5
PC-03	Hydrocotyle	callicarpa			No	Native				
PC-03	Hypocalymma	angustifolium			No	Native			1	0.4
PC-03	Isolepis		sp.	indet	No	Native			+	0.1
PC-03	Jacksonia	furcellata			No	Native				
PC-03	Kennedia	prostrata			No	Native			+	0.1
PC-03	Lagenophora	huegelii			No	Native			+	0.1
PC-03	Levenhookia	stipitata			No	Native				
PC-03	Melaleuca	incana	subsp.	incana	No	Native			5	1
PC-03	Melaleuca	preissiana			No	Native			25	10
PC-03	Patersonia	occidentalis			No	Native			+	0.2
PC-03	Podotheca	angustifolia			No	Native				
PC-03	Quinetia	urvillei			No	Native			+	0.1
PC-03	Rhodanthe	citrina			No	Native			+	0.1
PC-03	Senecio	diaschides			No	Native			+	0.1
PC-03	Trachymene	oleracea			No	Native				
PC-03	Wahlenbergia	gracilentata			No	Native				
PC-03	Xanthorrhoea	brunonis			No	Native			+	0.3

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-04	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-04	Acacia	extensa			No	Native			+	1.2
PC-04	Acacia	pulchella	var.	pulchella	No	Native			+	0.6
PC-04	Astroloma	pallidum			No	Native			+	0.2
PC-04	Babingtonia	camphorosmae			No	Native			1	0.3
PC-04	Banksia	bipinnatifida			No	Native			+	0.2
PC-04	Banksia	dallanneyi			No	Native			1	0.3
PC-04	Boronia	crenulata	subsp.	crenulata	No	Native			+	0.1
PC-04	Boronia	spathulata			No	Native			+	0.4
PC-04	Bossiaea	ericarpa			No	Native			2	0.2
PC-04	Calytrix	flavescens			No	Native			2	0.3
PC-04	Dasypogon	bromeliifolius			No	Native			2	0.3
PC-04	Daucus	glochidiatus			No	Native			+	0.1
PC-04	Daviesia	inflata			No	Native			+	0.6
PC-04	Desmocladius	fasciculatus			No	Native			1	0.1
PC-04	Eucalyptus	marginata	subsp.	marginata	No	Native			25	15-30
PC-04	Gompholobium	tomentosum			No	Native			+	0.3
PC-04	Hibbertia	vaginata			No	Native			+	0.3
PC-04	Hyalosperma	cotula			No	Native			+	0.1
PC-04	Hypocalymma	angustifolium			No	Native			1	0.5
PC-04	Kennedia	prostrata			No	Native			0.5	0.2
PC-04	Levenhookia	pusilla			No	Native			+	0.01
PC-04	Lindsaea	linearis			No	Native			+	0.1
PC-04	Lomandra	hermaphrodita			No	Native			+	0.2
PC-04	Lomandra	sericea			No	Native			+	0.3
PC-04	Nuytsia	floribunda			No	Native			1	3
PC-04	Persoonia	longifolia			No	Native			1	1-2
PC-04	Petrophile	linearis			No	Native			1	0.5
PC-04	Scaevola	calliptera			No	Native			+	0.1
PC-04	Styphelia	tenuifolia			No	Native			+	0.6
PC-04	Tetraria	octandra			No	Native			+	0.2
PC-04	Xanthorrhoea	preissii			No	Native			30	1-2
PC-04	Xylomelum	occidentale			No	Native			10	1-6
PC-05	*Briza	minor			No	Introduced			+	0.2
PC-05	*Disa	bracteata			No	Introduced			+	0.2
PC-05	*Hypochaeris	glabra			No	Introduced			1	0.05
PC-05	*Parentucellia	latifolia			No	Introduced			+	0.15
PC-05	*Pentameris	airoides			No	Introduced			1	0.1
PC-05	*Ursinia	antheroides			No	Introduced			1	0.1
PC-05	*Vulpia	bromoides			No	Introduced			4	0.05
PC-05	Adenanthos	obovatus			No	Native			4	0.5
PC-05	Bossiaea	ericarpa			No	Native			1	0.3
PC-05	Calothamnus	lehmannii			No	Native			3	0.2
PC-05	Crassula	colorata	var.	colorata	No	Native			+	0.1
PC-05	Dasypogon	bromeliifolius			No	Native			25	0.4
PC-05	Desmocladius	fasciculatus			No	Native			1	0.1
PC-05	Gompholobium	tomentosum			No	Native			+	0.1
PC-05	Hyalosperma	demissum			No	Native			1	0.1
PC-05	Hypocalymma	angustifolium			No	Native			2	0.3
PC-05	Jacksonia	furcellata			No	Native			+	1
PC-05	Kunzea	recurva			No	Native			1	0.5
PC-05	Levenhookia	stipitata			No	Native			+	0.1
PC-05	Melaleuca	preissiana			No	Native			5	2-15
PC-05	Millotia	tenuifolia	var.	tenuifolia	No	Native			1	0.1

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-05	Phlebocarya	ciliata			No	Native			+	0.1
PC-05	Podolepis	gracilis			No	Native			0.25	0.1
PC-05	Podotheca	angustifolia			No	Native			+	0.1
PC-05	Quinetia	urvillei			No	Native			0.5	0.1
PC-05	Rhodanthe	citrina			No	Native			0.5	0.1
PC-05	Stylidium	repens			No	Native			+	0.1
PC-05	Verticordia	densiflora	var.	densiflora	No	Native			+	0.5
PC-06	Acacia	extensa			No	Native				
PC-06	Allocauarina	fraseriana			No	Native				20
PC-06	Astroloma	drummondii			No	Native				
PC-06	Banksia	grandis			No	Native				2
PC-06	Banksia	sessilis	var.	sessilis	No	Native				
PC-06	Conostylis	serrulata			No	Native				
PC-06	Dampiera	linearis			No	Native				
PC-06	Daviesia	preissii			No	Native				
PC-06	Desmocladius	fasciculatus			No	Native				0.1
PC-06	Eucalyptus	marginata	subsp.	marginata	No	Native				20
PC-06	Gompholobium	knightianum			No	Native				
PC-06	Gompholobium	preissii			No	Native				
PC-06	Gompholobium	tomentosum			No	Native				0.2
PC-06	Hibbertia	amplexicaulis			No	Native				
PC-06	Hibbertia	commutata			No	Native				
PC-06	Hibbertia	lasiopus			No	Native				
PC-06	Hibbertia	vaginata			No	Native				
PC-06	Hibbertia	vaginata			No	Native				0.3
PC-06	Hovea	chorizemifolia			No	Native				
PC-06	Hypolaena	exsulca			No	Native				
PC-06	Labichea	punctata			No	Native				
PC-06	Lagenophora	huegelii			No	Native				0.1
PC-06	Lechenaultia	biloba			No	Native				0.6
PC-06	Lepidosperma	squamatum			No	Native				0.4
PC-06	Leucopogon	pendulus			No	Native				
PC-06	Lomandra	sericea			No	Native				
PC-06	Lyginia	imberbis			No	Native				
PC-06	Patersonia	occidentalis			No	Native				
PC-06	Petrophile	linearis			No	Native				0.6
PC-06	Scaevola	calliptera			No	Native				
PC-06	Stylidium	piliferum			No	Native				0.5
PC-06	Stylidium	plantagineum			No	Native				
PC-06	Stylidium	pulchellum			No	Native				
PC-06	Styphelia	tenuifolia			No	Native				0.3
PC-06	Tetraria		sp.	Jarrah Forest (R. Davis 7391)	No	Native				
PC-06	Tracymene	pilosa			No	Native				0.1
PC-06	Xanthosia	atkinsoniana			No	Native				
PC-06	Xanthosia	huegelii			No	Native				
PC-07	*Briza	minor			No	Introduced			+	0.1
PC-07	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-07	*Pentameris	airoides			No	Introduced			+	0
PC-07	*Pentameris	airoides			No	Introduced			+	0.1
PC-07	*Ursinia	anthemoides			No	Introduced			+	0.3
PC-07	*Vulpia	bromoides			No	Introduced			+	0.1
PC-07	Adenanthos	obovatus			No	Native			1.5	0.4
PC-07	Anigozanthos	bicolor	subsp.	decrescens	No	Native				
PC-07	Austrostipa	compressa			No	Native			+	0.2

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-07	Borya		cf.	scirpoidea	No	Native			+	0.01
PC-07	Calothamnus	lehmannii			No	Native			+	0.1
PC-07	Centrolepis	pilosa			No	Native			+	0.1
PC-07	Comesperma	calymega			No	Native			+	0.2
PC-07	Crassula	colorata	var.	colorata	No	Native			+	0.01
PC-07	Crassula	decumbens	var.	decumbens	No	Native			+	0.02
PC-07	Dasypogon	bromeliifolius			No	Native			5	0.5
PC-07	Drosera		sp.	indet	No	Native			+	0.2
PC-07	Euchilopsis	linearis			No	Native				
PC-07	Hakea	ceratophylla			No	Native			0.5	0.3
PC-07	Hakea	varia			No	Native			1	0.5
PC-07	Hyalosperma	demissum			No	Native			+	0.02
PC-07	Hypocalymma	angustifolium			No	Native			25	0.5
PC-07	Hypolaena	exsulca			No	Native			+	0.3
PC-07	Isolepis	congrua			No	Native			+	0.02
PC-07	Jacksonia	furcellata			No	Native			+	0.7
PC-07	Kunzea	recurva			No	Native			+	0.5
PC-07	Levenhookia	pusilla			No	Native			+	0.02
PC-07	Levenhookia	stipitata			No	Native			+	0.2
PC-07	Lyginia	imberbis			No	Native			+	
PC-07	Melaleuca	preissiana			No	Native			8	2-5
PC-07	Millotia	tenuifolia	var.	tenuifolia	No	Native			+	0.2
PC-07	Patersonia	occidentalis			No	Native			+	0.2
PC-07	Phyllangium	paradoxum			No	Native			+	0.2
PC-07	Podotheca	angustifolia			No	Native			+	0.1
PC-07	Quinetia	urvillei			No	Native			+	0.1
PC-07	Rhodanthe	citrina			No	Native			+	0.1
PC-07	Schoenus		sp.	indet	No	Native			+	0.1
PC-07	Siloxerus	filifolius			No	Native			1	0.01
PC-07	Stylidium	repens			No	Native			+	0.2
PC-07	Verticordia	densiflora	var.	densiflora	No	Native			4	0.4
PC-07	Verticordia	lindleyi	subsp.	purpurea	No	Native			+	0.3
PC-07	Wahlenbergia	gracilentia			No	Native			+	0.2
PC-07	Xanthosia	huegelii			No	Native			+	0.2
PC-08	Acacia	stenoptera			No	Native			+	1.5
PC-08	Agrostocrinum	scabrum			No	Native			+	0.3
PC-08	Allocasuarina	fraseriana			No	Native			25	20
PC-08	Astroloma	pallidum			No	Native			+	0.1
PC-08	Astroloma	squamatum			No	Native			+	0.5
PC-08	Banksia	bipinnatifida			No	Native			+	0.1
PC-08	Boronia	crenulata	subsp.	crenulata	No	Native			+	0.2
PC-08	Bossiaea	ornata			No	Native			10	0.3
PC-08	Conostylis	aculeata			No	Native			0.5	0.2
PC-08	Dampiera	linearis			No	Native			+	0.1
PC-08	Desmocladus	fasciculatus			No	Native			0.5	0.1
PC-08	Eucalyptus	marginata	subsp.	marginata	No	Native			30	20
PC-08	Gompholobium	knightianum			No	Native			+	0.3
PC-08	Haemodorum	laxum			No	Native			+	0.4
PC-08	Hibbertia	amplexicaulis			No	Native			+	0.2
PC-08	Hovea	chorizemifolia			No	Native			0.5	0.1
PC-08	Kennedia	coccinea			No	Native			+	0.1
PC-08	Lechenaultia	biloba			No	Native			+	0.1
PC-08	Lepidosperma	leptostachyum			No	Native			+	0.8
PC-08	Lepidosperma	tenue			No	Native			+	0.3

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-08	Lomandra	hermaphrodita			No	Native			+	0.1
PC-08	Lomandra	sericea			No	Native			+	0.2
PC-08	Neurachne	alopecuroidea			No	Native			+	0.1
PC-08	Opercularia	hispidula			No	Native				
PC-08	Patersonia	babionoides			No	Native			+	0.3
PC-08	Persoonia	longifolia			No	Native			1	2.5
PC-08	Scaevola	calliptera			No	Native			+	0.1
PC-08	Stackhousia	huegelii			No	Native			+	0.2
PC-08	Stylidium	piliferum			No	Native			0.5	0.2
PC-08	Styphelia	tenuifolia			No	Native			+	0.3
PC-08	Tetraria		sp.	Jarrah Forest (R. Davis 7391)	No	Native			5	0.5
PC-08	Tetrarrhena	laevis			No	Native			+	0.2
PC-08	Tetradlea	hirsuta	subsp.	viminea	No	Native			+	0.05
PC-08	Trymalium	ledifolium			No	Native			4	0.5
PC-08	Xanthosia	atkinsoniana			No	Native			+	0.4
PC-09	*Aira	caryophyllea			No	Introduced			0.5	0.1
PC-09	*Pinus	radiata			No	Introduced				
PC-09	*Vulpia	bromoides			No	Introduced			+	0.1
PC-09	Aotus	gracillima			No	Native			+	0.4
PC-09	Astartea	scoparia			No	Native			13	0.5-1
PC-09	Austrostipa	compressa			No	Native			+	0.3
PC-09	Boronia	megastigma			No	Native	6	Count	1	0.5-1
PC-09	Boronia	spathulata			No	Native			+	0.3
PC-09	Caesia	micrantha			No	Native			+	0.3
PC-09	Chordifex	laxus			No	Native			0.5	0.4
PC-09	Crassula	decumbens	var.	decumbens	No	Native			+	0.1
PC-09	Cyathochaeta	avenacea			No	Native			4	0.5
PC-09	Eucalyptus	rudis	subsp.	rudis	No	Native			3	5-6
PC-09	Eutaxia	virgata			No	Native			1	0.3
PC-09	Hakea	ceratophylla			No	Native				
PC-09	Hibbertia	stellaris			No	Native			+	0.2
PC-09	Hypocalymma	angustifolium			No	Native			25	0.5
PC-09	Hypolaena	exsulca			No	Native			1.5	0.4
PC-09	Jacksonia	furcellata			No	Native				
PC-09	Kunzea	sulphurea			No	Native				
PC-09	Melaleuca	incana	subsp.	incana	No	Native			6	0.5
PC-09	Melaleuca	preissiana			No	Native			15	2-6
PC-09	Patersonia	occidentalis			No	Native			0.5	0.3
PC-09	Pericalymma	ellipticum	var.	ellipticum	No	Native			+	0.5
PC-09	Scaevola	calliptera			No	Native				
PC-09	Stylidium	spathulatum			No	Native	50	Count		
PC-09	Taxandria	linearifolia			No	Native			2	1-2.5
PC-09	Tremula	tremulina			No	Native			2	0.4
PC-09	Xanthorrhoea	brunonis			No	Native				
PC-09	Xanthorrhoea	preissii			No	Native				
PC-10	Acacia	extensa			No	Native			+	0.6
PC-10	Allocasuarina	fraseriana			No	Native			20	20
PC-10	Astroloma	drummondii			No	Native			+	0.1
PC-10	Austrostipa	mollis			No	Native			+	0.4
PC-10	Boronia	spathulata			No	Native			+	0.3
PC-10	Bossiaea	eriocarpa			No	Native			35	0.3
PC-10	Caladenia	flava			No	Native			+	0.1
PC-10	Calytrix	flavescens			No	Native			15	0.3
PC-10	Conostylis	serrulata			No	Native			+	0.3

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-10	Dampiera	linearis			No	Native			+	0.1
PC-10	Desmodium	fasciculatus			No	Native			+	0.1
PC-10	Drosera	pallida			No	Native			+	0.8
PC-10	Eucalyptus	marginata	subsp.	marginata	No	Native			20	20
PC-10	Hibbertia	vaginata			No	Native			10	0.3
PC-10	Hovea	chorizemifolia			No	Native			+	0.1
PC-10	Kunzea	glabrescens			No	Native			+	1
PC-10	Lepidosperma	squamatum			No	Native			+	0.5
PC-10	Lomandra	caespitosa			No	Native			2	0.2
PC-10	Lomandra	hermaphrodita			No	Native			+	0.2
PC-10	Lomandra	sericea			No	Native			+	0.3
PC-10	Patersonia	babionoides			No	Native			+	0.3
PC-10	Persoonia	longifolia			No	Native			1	1-2
PC-10	Petrophile	linearis			No	Native			0.5	0.3
PC-10	Styphelia	tenuifolia			No	Native			+	0.4
PC-10	Tetraloche	hirsuta	subsp.	viminea	No	Native			+	0.2
PC-10	Xanthorrhoea	gracilis			No	Native			+	0.6
PC-10	Xanthorrhoea	preissii			No	Native			1	1-2
PC-10	Xanthosia	huegelii			No	Native			+	0.1
PC-10	Xylomelum	occidentale			No	Native			5	1-6
PC-11	*Aira	caryophyllea			No	Introduced			+	0.1
PC-11	*Hypochaeris	glabra			No	Introduced			+	0.01
PC-11	*Pentameris	airoides			No	Introduced			+	0.15
PC-11	*Pentameris	airoides			No	Introduced			+	0.05
PC-11	*Ursinia	antheroides			No	Introduced			+	0.2
PC-11	*Vulpia	bromoides			No	Introduced			+	0.1
PC-11	Acacia	pulchella	var.	pulchella	No	Native			+	0.3
PC-11	Adenanthos	obovatus			No	Native			2	0.4
PC-11	Aotus	gracillima			No	Native			+	0.3
PC-11	Astartea	scoparia			No	Native			35	0.4
PC-11	Austrostipa	compressa			No	Native			+	0.1
PC-11	Banksia	littoralis			No	Native				4.5
PC-11	Calothamnus	lehmannii			No	Native			+	0.3
PC-11	Cyathochaeta	avenacea			No	Native			5	0.5
PC-11	Hypocalymma	angustifolium			No	Native			12	0.5
PC-11	Isolepis	congrua			No	Native			+	0.1
PC-11	Jacksonia	furcellata			No	Native			0.5	0.5
PC-11	Melaleuca	incana	subsp.	incana	No	Native			2	0.5
PC-11	Melaleuca	preissiana			No	Native			15	6-10
PC-11	Nuytsia	floribunda			No	Native				
PC-11	Patersonia	occidentalis			No	Native			+	0.23
PC-11	Taxandria	linearifolia			No	Native			1	0.5-1
PC-11	Wahlenbergia	gracilentia			No	Native				
PC-11	Xanthorrhoea	preissii			No	Native			+	0.5-1
PC-12	Babingtonia	camphorosmae			No	Native			+	0.2
PC-12	Banksia	dallanneyi			No	Native			3	0.2
PC-12	Billardiera	variifolia			No	Native			+	1
PC-12	Boronia	crenulata	subsp.	crenulata	No	Native			+	0.2
PC-12	Bossiaea	ericarpa			No	Native			+	0.2
PC-12	Bossiaea	ornata			No	Native			7	0.3
PC-12	Corymbia	calophylla			No	Native			25	25
PC-12	Dampiera	linearis			No	Native			+	0.1
PC-12	Desmodium	fasciculatus			No	Native			0.5	0.1
PC-12	Drosera	pallida			No	Native			+	0.8

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-12	Eucalyptus	marginata	subsp.	marginata	No	Native			30	25
PC-12	Grevillea	quercifolia			No	Native				
PC-12	Hakea	lissocarpha			No	Native			5	0.5
PC-12	Hibbertia	amplexicaulis			No	Native			1	0.2
PC-12	Hibbertia	commutata			No	Native			+	0.2
PC-12	Hibbertia	hypericoides			No	Native			+	0.3
PC-12	Hypocalymma	angustifolium			No	Native			+	0.3
PC-12	Kennedia	coccinea			No	Native			+	0.2
PC-12	Lomandra	hermaphrodita			No	Native			+	0.2
PC-12	Macrozamia	riedlei			No	Native				
PC-12	Patersonia	babionoides			No	Native			+	0.3
PC-12	Petrophile	linearis			No	Native			+	0.5
PC-12	Stylidium	piliferum			No	Native			+	0.1
PC-12	Styphelia	tenuifolia			No	Native			+	0.4
PC-12	Tetraria	octandra			No	Native			+	0.1
PC-12	Tetraria		sp.	Jarrah Forest (R. Davis 7391)	No	Native			+	0.2
PC-12	Xanthorrhoea	preissii			No	Native			12	1-2
PC-12	Xanthosia	huegelii			No	Native			+	0.3
PC-13	*Aira	caryophyllea			No	Introduced			+	0.1
PC-13	*Hypochaeris	glabra			No	Introduced			+	0.15
PC-13	*Ursinia	anthemoides			No	Introduced			0.25	0.1
PC-13	Acacia	extensa			No	Native				
PC-13	Allocasuarina	humilis			No	Native			6	0.5
PC-13	Austrostipa	compressa			No	Native			1	0.2
PC-13	Banksia	attenuata			No	Native				
PC-13	Boronia	spathulata			No	Native			+	
PC-13	Bossiaea	eriocarpa			No	Native			11	0.3
PC-13	Calothamnus	lehmannii			No	Native			1	0.2
PC-13	Calytrix	flavescens			No	Native			5	0.2
PC-13	Chamaescilla	corymbosa			No	Native			+	0.2
PC-13	Comesperma	calymega			No	Native			+	0.2
PC-13	Cyathochaeta	avenacea			No	Native			+	0.2
PC-13	Dasypogon	bromeliifolius			No	Native			10	0.35
PC-13	Desmocladius	fasciculatus			No	Native			4	0.2
PC-13	Desmocladius	flexuosus			No	Native			+	0.25
PC-13	Eucalyptus	marginata	subsp.	marginata	No	Native			5	10-25
PC-13	Gompholobium	tomentosum			No	Native			+	0.1
PC-13	Hemiandra	pungens			No	Native			+	0.05
PC-13	Hibbertia	diamesogenos			No	Native			+	0.1
PC-13	Hyalosperma	demissum			No	Native			+	0.1
PC-13	Hypocalymma	angustifolium			No	Native			2	0.3
PC-13	Hypolaena	exsulca			No	Native			+	0.2
PC-13	Jacksonia	furcellata			No	Native			1	0.5-1
PC-13	Levenhookia	pusilla			No	Native			+	0.05
PC-13	Levenhookia	pusilla			No	Native			+	0.05
PC-13	Lomandra		sp.	indet	No	Native			+	0.1
PC-13	Lomandra		sp.	indet	No	Native			+	0.2
PC-13	Lyginia	imberbis			No	Native			+	0.4
PC-13	Melaleuca	preissiana			No	Native			4	4-8
PC-13	Millotia	tenuifolia	var.	tenuifolia	No	Native			+	0.05
PC-13	Nuytsia	floribunda			No	Native			1	7
PC-13	Phlebocarya	ciliata			No	Native			+	0.1
PC-13	Phyllangium	paradoxum			No	Native			+	0.1
PC-13	Podotheca	angustifolia			No	Native			+	0.05



Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-13	Pseudognaphalium	luteoalbum			No	Native			+	0.05
PC-13	Rhodanthe	citrina			No	Native			+	0.1
PC-13	Scaevola	calliptera			No	Native			+	
PC-13	Stylidium	repens			No	Native			+	0.05
PC-13	Stylidium		sp.	indet	No	Native			+	0.2
PC-13	Thelymitra	graminea			No	Native			+	0.2
PC-13	Trachymene	pilosa			No	Native			+	0.1
PC-13	Verticordia	densiflora	var.	densiflora	No	Native			2	0.5
PC-13	Wahlenbergia	gracilentia			No	Native			+	0.1
PC-13	Xanthorrhoea	preissii			No	Native			5	1-2
PC-13	Xanthosia	huegelii			No	Native			+	0.1
PC-14	Acacia	applanata			No	Native			+	0.1
PC-14	Agrostocrinum	scabrum			No	Native			+	0.8
PC-14	Astroloma	ciliatum			No	Native			+	0.1
PC-14	Astroloma	pallidum			No	Native			0.5	0.1
PC-14	Banksia	bipinnatifida			No	Native			2	0.2
PC-14	Banksia	dallanneyi			No	Native			5	0.2
PC-14	Boronia	crenulata	subsp.	crenulata	No	Native			+	0.6
PC-14	Bossiaea	ornata			No	Native			5	0.3
PC-14	Centrolepis	caespitosa			No	Native			0.5	0.2
PC-14	Conostylis	setigera	subsp.	setigera	No	Native			+	0.1
PC-14	Dampiera	linearis			No	Native			+	0.1
PC-14	Desmocladus	fasciculatus			No	Native			1	0.1
PC-14	Eucalyptus	marginata	subsp.	marginata	No	Native			40	25
PC-14	Grevillea	quercifolia			No	Native				
PC-14	Haemodorum	laxum			No	Native			+	0.3
PC-14	Hakea	ruscifolia			No	Native			+	0.8
PC-14	Hibbertia	amplexicaulis			No	Native			+	0.2
PC-14	Hibbertia	diamesogenos			No	Native			+	0.1
PC-14	Hibbertia	hypericoides			No	Native			+	0.2
PC-14	Hibbertia	lasiopus			No	Native			2	0.3
PC-14	Labichea	punctata			No	Native			+	0.1
PC-14	Lagenophora	huegelii			No	Native			+	0.1
PC-14	Leucopogon	capitellatus			No	Native			+	0.3
PC-14	Lomandra	hermaphrodita			No	Native			+	0.2
PC-14	Neurachne	alopeuroidea			No	Native			+	0.1
PC-14	Patersonia	babionoides			No	Native			+	0.3
PC-14	Pericalymma	ellipticum	var.	ellipticum	No	Native			+	0.8
PC-14	Styphelia	tenuifolia			No	Native			+	0.5
PC-14	Tetralia	octandra			No	Native			+	0.2
PC-14	Tetralia		sp.	Jarrah Forest (R. Davis 7391)	No	Native			2	0.4
PC-14	Tetrarrhena	laevis			No	Native			+	0.2
PC-14	Tetralia	hirsuta	subsp.	viminea	No	Native			+	0.2
PC-14	Trymalium	ledifolium			No	Native			0.5	0.4
PC-14	Xanthorrhoea	brunonis			No	Native			+	1-2
PC-14	Xanthorrhoea	preissii			No	Native			15	1-3
PC-15	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-15	*Pentameris	airoides			No	Introduced			+	0.2
PC-15	*Ursinia	antheroides			No	Introduced			0.5	0.2
PC-15	Austrostipa	compressa			No	Native			+	0.2
PC-15	Babingtonia	camphorosmae			No	Native			+	0.3
PC-15	Boronia	spathulata			No	Native			0.5	0.3
PC-15	Bossiaea	ericarpa			No	Native			8	0.3
PC-15	Calothamnus	lehmannii			No	Native			0.5	0.2

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-15	Cyathochaeta	avenacea			No	Native			+	0.3
PC-15	Dasypogon	bromeliifolius			No	Native			15	0.5
PC-15	Desmocladius	fasciculatus			No	Native			1	0.1
PC-15	Eucalyptus	marginata	subsp.	marginata	No	Native			20	6-25
PC-15	Gompholobium	tomentosum			No	Native			+	0.1
PC-15	Hypocalymma	angustifolium			No	Native			1	0.2
PC-15	Levenhookia	stipitata			No	Native			+	0.1
PC-15	Lindsaea	linearis			No	Native			0.5	0.1
PC-15	Lomandra	hermaphrodita			No	Native			+	0.1
PC-15	Melaleuca	preissiana			No	Native			10	4-6
PC-15	Nuytsia	floribunda			No	Native			2	1-4
PC-15	Orchidaceae		sp.	indet	No	Native			+	0.3
PC-15	Pericalymma	ellipticum	var.	ellipticum	No	Native			+	0.2
PC-15	Phyllangium	paradoxum			No	Native			+	0.1
PC-15	Podolepis	gracilis			No	Native			+	0.2
PC-15	Podotheca	angustifolia			No	Native			+	0.1
PC-15	Pterochaeta	paniculata			No	Native			+	0.1
PC-15	Restionaceae		sp.	indet	No	Native			+	0.1
PC-15	Rhodanthe	citrina			No	Native			+	0.1
PC-15	Siloxerus	filifolius			No	Native			+	0.01
PC-15	Trachymene	pilosa			No	Native			+	0.1
PC-15	Verticordia	densiflora	var.	densiflora	No	Native			0.5	0.5
PC-15	Xanthorrhoea	preissii			No	Native			5	1-2
PC-15	Xanthosia	huegelii			No	Native			+	0.1
PC-16	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-16	*Pinus	radiata			No	Introduced				
PC-16	*Ursinia	anthemoides			No	Introduced			+	0.2
PC-16	Acacia	alata			No	Native			+	1-2
PC-16	Acacia	extensa			No	Native			2	1-1.5
PC-16	Adenanthos	obovatus			No	Native			2	0.5-1
PC-16	Austrostipa	compressa			No	Native			+	0.3
PC-16	Boronia	spathulata			No	Native			+	0.4
PC-16	Caesia	micrantha			No	Native			+	0.3
PC-16	Conostylis	setigera	subsp.	setigera	No	Native			+	0.2
PC-16	Cyathochaeta	avenacea			No	Native			4	0.5
PC-16	Cytogonidium	leptocarpoides			No	Native			+	0.3
PC-16	Dampiera	linearis			No	Native			+	0.3
PC-16	Dasypogon	bromeliifolius			No	Native			25	0.35
PC-16	Desmocladius	fasciculatus			No	Native			12	0.15
PC-16	Eucalyptus	marginata	subsp.	marginata	No	Native			4	8-15
PC-16	Gompholobium	capitatum			No	Native			+	0.1
PC-16	Gompholobium	tomentosum			No	Native			+	0.4
PC-16	Haemodorum	spicatum			No	Native			+	0.4
PC-16	Hemiandra	pungens			No	Native				
PC-16	Hibbertia	vaginata			No	Native			+	0.4
PC-16	Hyalosperma	demissum			No	Native			+	0.05
PC-16	Hypocalymma	angustifolium			No	Native			20	0.4-0.7
PC-16	Hypolaena	exsulca			No	Native			6	0.25
PC-16	Jacksonia	furcellata			No	Native			1	1-2.5
PC-16	Kunzea	glabrescens			No	Native			4	2-4
PC-16	Kunzea	recurva			No	Native			3	1-2.5
PC-16	Lepidosperma	squamatum			No	Native			3	0.6
PC-16	Lindsaea	linearis			No	Native			+	0.1
PC-16	Lomandra	caespitosa			No	Native			+	0.2

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-16	Lomandra	hermaphrodita			No	Native			+	0.2
PC-16	Lomandra	sericea			No	Native			+	0.2
PC-16	Lyginia	imberbis			No	Native			+	0.5
PC-16	Melaleuca	preissiana			No	Native			5	3-5
PC-16	Millotia	tenuifolia	var.	tenuifolia	No	Native			+	0.05
PC-16	Nuytsia	floribunda			No	Native			1	1-6
PC-16	Pericalymma	ellipticum	var.	ellipticum	No	Native			8	0.4-1
PC-16	Phlebocarya	ciliata			No	Native			7	0.25
PC-16	Rhodanthe	citrina			No	Native			+	0.1
PC-16	Scaevola	calliptera			No	Native			+	0.1
PC-16	Stylidium	repens			No	Native			0.5	0.1
PC-16	Stylidium		sp.	indet	No	Native			+	0.3
PC-16	Thelymitra		sp.	indet	No	Native			+	0.3
PC-16	Trachymene	pilosa			No	Native			+	0.1
PC-16	Tremula	tremulina			No	Native			2	0.5-1
PC-17	*Aira	caryophyllea			No	Introduced			+	0.1
PC-17	*Aira	praecox			No	Introduced			+	0.1
PC-17	*Pentameris	airoides			No	Introduced			+	0.2
PC-17	*Vulpia	bromoides			No	Introduced			+	0.2
PC-17	*Vulpia	bromoides			No	Introduced			+	0.1
PC-17	Acacia		cf.	trigonophylla	No	Native			+	0.03
PC-17	Adenanthos	obovatus			No	Native			2	0.5-1
PC-17	Astartea	scoparia			No	Native			1.5	0.5
PC-17	Austrostipa	compressa			No	Native			0.25	0.3
PC-17	Boronia	spathulata			No	Native			0.25	0.2
PC-17	Calothamnus	lehmannii			No	Native			0.5	0.2
PC-17	Cyathochaeta	avenacea			No	Native			8	0.3
PC-17	Dasyogon	bromeliifolius			No	Native			8	0.3
PC-17	Desmocladius	fasciculatus			No	Native				0.1
PC-17	Hakea	varia			No	Native				
PC-17	Hypocalymma	angustifolium			No	Native			20	0.3
PC-17	Isolepis	congrua			No	Native			+	0.05
PC-17	Kunzea	recurva			No	Native			1	0.3
PC-17	Levenhookia	stipitata			No	Native			+	0.1
PC-17	Melaleuca	preissiana			No	Native			3	2-6
PC-17	Millotia	tenuifolia	var.	tenuifolia	No	Native			+	0.05
PC-17	Nuytsia	floribunda			No	Native			2	8
PC-17	Podotheca	angustifolia			No	Native			+	0.1
PC-17	Pseudognaphalium	luteoalbum			No	Native			+	0.1
PC-17	Restionaceae		sp.	indet	No	Native			+	0.15
PC-17	Scaevola	calliptera			No	Native			+	0.05
PC-17	Senecio	diaschides			No	Native			+	0.5
PC-17	Stylidium	dichotomum			No	Native			+	0.05
PC-17	Stylidium	repens			No	Native			+	0.05
PC-17	Verticordia	densiflora	var.	densiflora	No	Native			3	0.4
PC-17	Wahlenbergia	gracilentia			No	Native			+	0.1
PC-17	Waitzia	suaveolens			No	Native			+	0.1
PC-18	*Aira	caryophyllea			No	Introduced			+	0.1
PC-18	*Asparagus	asparagoides			No	Introduced			+	0.2
PC-18	*Lysimachia	avensis			No	Introduced			0.5	0.05
PC-18	Acacia	extensa			No	Native			+	0.6
PC-18	Acacia	pulchella	var.	pulchella	No	Native			0.5	0.8
PC-18	Acacia	saligna			No	Native			+	2
PC-18	Astroloma	ciliatum			No	Native			+	0.1

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-18	Austrostipa	mollis			No	Native				
PC-18	Babingtonia	camphorosmae			No	Native			+	0.2
PC-18	Banksia	dallanneyi			No	Native				
PC-18	Bossiaea	eriocarpa			No	Native			5	0.3
PC-18	Brachyscome	iberidifolia			No	Native			0.5	0.05
PC-18	Conostylis	aculeata			No	Native				
PC-18	Craspedia	variabilis			No	Native				
PC-18	Cyathochaeta	avenacea			No	Native			+	0.3
PC-18	Daviesia	incrassata	subsp.	incrassata	No	Native			0.5	0.6
PC-18	Desmodcladus	fasciculatus			No	Native			+	0.1
PC-18	Eucalyptus	deciens	subsp.	deciens	No	Native			35	<10
PC-18	Eucalyptus	wandoo			No	Native			2	25
PC-18	Gompholobium	marginatum			No	Native			+	0.05
PC-18	Hakea	lissocarpha			No	Native				
PC-18	Hakea	prostrata			No	Native			1	2
PC-18	Hibbertia	commutata			No	Native			+	0.3
PC-18	Hibbertia	diamogenos			No	Native				
PC-18	Hibbertia	vaginata			No	Native			+	0.3
PC-18	Hyalosperma	cotula			No	Native			+	0.1
PC-18	Hypocalymma	angustifolium			No	Native			2	0.4
PC-18	Kennedia	prostrata			No	Native			+	0.1
PC-18	Kunzea	glabrescens			No	Native			1	2
PC-18	Leucopogon	propinquus			No	Native			0.5	0.4
PC-18	Lomandra	huegelii			No	Native			+	0.1
PC-18	Macrozamia	riedlei			No	Native			0.5	1
PC-18	Millotia	tenuifolia	var.	tenuifolia	No	Native			+	0.05
PC-18	Neurachne	alopecuroidea			No	Native			0.5	0.05
PC-18	Olax	benthamiana			No	Native			+	0.4
PC-18	Podolepis	lessonii			No	Native				
PC-18	Ptilotus	manglesii			No	Native			+	0.05
PC-18	Sowerbaea	laxiflora			No	Native			+	0.3
PC-18	Tetralia	octandra			No	Native			+	0.2
PC-18	Tetralia		sp.	Jarrah Forest (R. Davis 7391)	No	Native			+	0.3
PC-18	Thysanotus	tenellus			No	Native			+	0.2
PC-18	Trachymene	pilosa			No	Native			1	0.05
PC-18	Tripterococcus	brunonis			No	Native			+	0.4
PC-18	Trymalium	ledifolium			No	Native			+	0.6
PC-18	Velleia	trinervis			No	Native				
PC-18	Xanthorrhoea	brunonis			No	Native				
PC-18	Xanthorrhoea	preissii			No	Native			5	15-2
PC-19	*Conyza	bonariensis			No	Introduced			+	0.3
PC-19	*Disa	bracteata			No	Introduced			+	0.1
PC-19	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-19	*Pinus	radiata			No	Introduced			3	5
PC-19	*Pseudognaphalium	luteoalbum			No	Introduced			+	0.3
PC-19	Acacia	celastrifolia			No	Native				
PC-19	Acacia	extensa			No	Native			+	1.5
PC-19	Acacia	pulchella	var.	pulchella	No	Native			+	1.5
PC-19	Acacia	trigonophylla			No	Native			1	1-1.5
PC-19	Astartea	scoparia			No	Native			6	1-2
PC-19	Calothamnus	quadrifidus			No	Native				
PC-19	Drosera	pulchella			No	Native			1	0.01
PC-19	Hemigenia	pritzelii			No	Native				
PC-19	Hypocalymma	angustifolium			No	Native			2	0.5

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-19	Kunzea	glabrescens			No	Native				
PC-19	Lagenophora	huegelii			No	Native			+	0.01
PC-19	Melaleuca	incana	subsp.	incana	No	Native			8	1-3
PC-19	Melaleuca	preissiana			No	Native			55	2-6
PC-19	Pericalymma	ellipticum	var.	ellipticum	No	Native			+	0.5
PC-19	Rytidosperma	caespitosum			No	Native			+	0.2
PC-19	Senecio	diaschides			No	Native			+	0.4
PC-19	Senecio	quadridentatus			No	Native			+	0.4
PC-19	Taxandria	linearifolia			No	Native				
PC-19	Thelymitra	graminea			No	Native			+	0.2
PC-19	Trachymene	pilosa			No	Native			+	0.1
PC-20	*Aira	caryophyllea			No	Introduced			+	0.1
PC-20	Acacia	drummondii			No	Native			+	0.1
PC-20	Acacia	urophylla			No	Native				
PC-20	Banksia	bipinnatifida			No	Native			+	0.1
PC-20	Banksia	dallanneyi			No	Native			4	0.2
PC-20	Boronia	crenulata	subsp.	crenulata	No	Native			+	0.3
PC-20	Bossiaea	ornata			No	Native			7	0.3
PC-20	Conostylis	setigera	subsp.	setigera	No	Native			+	0.05
PC-20	Daviesia	preissii			No	Native			0.5	0.5
PC-20	Desmocladus	fasciculatus			No	Native			0.5	0.1
PC-20	Eucalyptus	marginata	subsp.	marginata	No	Native			50	25
PC-20	Hakea	lissocarpha			No	Native			1	1
PC-20	Hemiandra	pungens			No	Native				
PC-20	Hibbertia	amplexicaulis			No	Native			+	0.2
PC-20	Hibbertia	commutata			No	Native			0.5	0.3
PC-20	Hibbertia	diamesogenos			No	Native			+	0.1
PC-20	Hovea	chorizemifolia			No	Native			+	0.2
PC-20	Hypocalymma	angustifolium			No	Native				
PC-20	Kennedia	prostrata			No	Native			+	0.1
PC-20	Labichea	punctata			No	Native			+	0.1
PC-20	Lagenophora	huegelii			No	Native			+	0.1
PC-20	Lechenaultia	biloba			No	Native			+	0.1
PC-20	Lepidosperma	leptostachyum			No	Native			0.5	0.7
PC-20	Lomandra	caespitosa			No	Native			+	0.1
PC-20	Lomandra	hermaphrodita			No	Native			+	0.1
PC-20	Lomandra	purpurea			No	Native			+	0.5
PC-20	Lomandra	sericea			No	Native			+	0.3
PC-20	Macrozamia	riedlei			No	Native			0.5	1
PC-20	Millotia	tenuifolia	var.	tenuifolia	No	Native			+	0.05
PC-20	Patersonia	babionoides			No	Native			+	0.2
PC-20	Persoonia	longifolia			No	Native			+	1
PC-20	Petrophile	linearis			No	Native				
PC-20	Scaevola	calliptera			No	Native			+	0.1
PC-20	Senecio	diaschides			No	Native			+	0.5
PC-20	Stylidium	piliferum			No	Native			+	0.05
PC-20	Tetraria	octandra			No	Native			+	0.1
PC-20	Tetraria		sp.	Jarrah Forest (R. Davis 7391)	No	Native			2	0.4
PC-20	Trachymene	pilosa			No	Native			+	0.05
PC-20	Trymalium	ledifolium			No	Native			1	0.5
PC-20	Xanthorrhoea	gracilis			No	Native			5	<1
PC-21	*Disa	bracteata			No	Introduced			+	+
PC-21	*Pinus	radiata			No	Introduced			1	3
PC-21	Acacia		cf.	trigonophylla	No	Native				

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-21	Adenanthos	obovatus			No	Native			0.5	0.5
PC-21	Boronia	spathulata			No	Native			0.5	0.4
PC-21	Calothamnus	lateralis			No	Native			+	0.35
PC-21	Calothamnus	lehmannii			No	Native			1	0.3
PC-21	Chordifex	laxus			No	Native			2	0.3
PC-21	Cyathochaeta	avenacea			No	Native			2	0.4
PC-21	Cytogonidium	leptocarpoides			No	Native			2	0.4
PC-21	Dampiera	pedunculata			No	Native			+	0.2
PC-21	Dasypogon	bromeliifolius			No	Native			2	0.3
PC-21	Desmocladius	fasciculatus			No	Native			0.5	0.1
PC-21	Eucalyptus	marginata	subsp.	marginata	No	Native				
PC-21	Hakea	ceratophylla			No	Native			0.5	0.5-1
PC-21	Hakea	sulcata			No	Native			1	1
PC-21	Hovea	trisperma			No	Native			+	0.1
PC-21	Hypocalymma	angustifolium			No	Native			10	0.4
PC-21	Hypolaena	exsulca			No	Native			1	0.3
PC-21	Kunzea	glabrescens			No	Native			0.5	2
PC-21	Kunzea	recurva			No	Native			1	1-2
PC-21	Lechenaultia	floribunda			No	Native			+	0.05
PC-21	Lepidosperma		sp.	indet	No	Native			+	0.2
PC-21	Leucopogon	australis			No	Native			+	1
PC-21	Leucopogon	glabellus			No	Native			+	0.4
PC-21	Lomandra	hermaphrodita			No	Native			+	0.1
PC-21	Melaleuca	preissiana			No	Native			5	5-8
PC-21	Nuytsia	floribunda			No	Native			+	0.5
PC-21	Pericalymma	ellipticum	var.	ellipticum	No	Native			25	0.5-1.2
PC-21	Phlebocarya	ciliata			No	Native			+	0.1
PC-21	Pimelea		sp.	indet	No	Native			+	0.1
PC-21	Schoenus	curvifolius			No	Native			+	0.1
PC-21	Stylidium	repens			No	Native			+	0.1
PC-21	Tremula	tremulina			No	Native			30	0.5-1
PC-21	Verticordia	densiflora	var.	densiflora	No	Native			+	0.3
PC-21	Xanthorrhoea	preissii			No	Native				
PC-22	*Aira	caryophyllea			No	Introduced			+	0.1
PC-22	*Briza	maxima			No	Introduced			+	0.2
PC-22	*Hypochaeris	glabra			No	Introduced			+	0.2
PC-22	*Pentameris	airoides			No	Introduced			+	0.2
PC-22	*Ursinia	antheroides			No	Introduced			+	0.2
PC-22	Acacia	extense			No	Native			1.5	1.5
PC-22	Acacia	semitrullata			Yes	Native	1	Count	+	0.3
PC-22	Austrostipa	compressa			No	Native			+	0.2
PC-22	Boronia	spathulata			No	Native			+	0.4
PC-22	Bossiaea	ericarpa			No	Native			4	0.2
PC-22	Calothamnus	lehmannii			No	Native			0.5	0.3
PC-22	Calytrix	flavescens			No	Native			10	0.3
PC-22	Conostylis	setigera	subsp.	setigera	No	Native			0.5	0.2
PC-22	Cyathochaeta	avenacea			No	Native			+	0.3
PC-22	Dasypogon	bromeliifolius			No	Native			32	0.4
PC-22	Desmocladius	fasciculatus			No	Native			1	0.2
PC-22	Eucalyptus	marginata	subsp.	marginata	No	Native			15	4-20
PC-22	Gompholobium	capitatum			No	Native			+	0.1
PC-22	Gompholobium	marginatum			No	Native			+	0.1
PC-22	Hibbertia	vaginata			No	Native			1	0.3
PC-22	Hypocalymma	angustifolium			No	Native			12	0.4-1

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-22	Hypolaena	exsulca			No	Native			+	0.2
PC-22	Kunzea	glabrescens			No	Native			1	2.5
PC-22	Kunzea	recurva			No	Native			+	1
PC-22	Laxamana	sessiliflora			No	Native			+	0.1
PC-22	Leucopogon	oxycedrus			No	Native			0.5	0.4
PC-22	Lomandra	hermaphrodita			No	Native			+	0.1
PC-22	Lomandra	preissii			No	Native			+	0.1
PC-22	Lomandra	sericea			No	Native			+	0.3
PC-22	Lyginia	imberbis			No	Native			0.5	0.3
PC-22	Melaleuca	preissiana			No	Native			5	2-6
PC-22	Nuytsia	floribunda			No	Native			2	0.5-5
PC-22	Pteridium	esculentum			No	Native				
PC-22	Rhodanthe	citrina			No	Native			+	0.1
PC-22	Stylidium	repens			No	Native			+	0.1
PC-22	Stylidium	schoenoides			No	Native			+	0.2
PC-22	Stylidium		sp.	indet	No	Native			+	0.3
PC-22	Tetraria		sp.	Jarrah Forest (R. Davis 7391)	No	Native			+	0.3
PC-22	Trachymene	pilosa			No	Native			+	0.1
PC-22	Verticordia	densiflora	var.	densiflora	No	Native			4	0.2
PC-22	Xanthorrhoea	preissii			No	Native			5	1-2
PC-23	Adenanthos	obovatus			No	Native			4	0.5-1
PC-23	Boronia	spathulata			No	Native			+	0.3
PC-23	Conostylis	pusilla			No	Native			+	0.1
PC-23	Cyathochaeta	avenacea			No	Native			8	0.4
PC-23	Cytogonidium	leptocarpoides			No	Native			2	0.45
PC-23	Cytogonidium	leptocarpoides			No	Native			+	0.4
PC-23	Dasyogon	bromeliifolius			No	Native			7	0.3
PC-23	Desmocladus	fasciculatus			No	Native			+	0.1
PC-23	Drosera		sp.	indet	No	Native			+	0.1
PC-23	Eucalyptus	marginata	subsp.	marginata	No	Native				
PC-23	Hibbertia	pulchra	var.	pulchra	No	Native			0.5	0.2
PC-23	Hypocalymma	angustifolium			No	Native			12	0.4
PC-23	Hypolaena	exsulca			No	Native			+	0.3
PC-23	Kunzea	glabrescens			No	Native			3	1-4
PC-23	Kunzea	recurva			No	Native			2	1-2.5
PC-23	Leucopogon	glabellus			No	Native			+	0.5
PC-23	Lyginia	imberbis			No	Native			1	0.4
PC-23	Lyginia	imberbis			No	Native				
PC-23	Melaleuca	preissiana			No	Native			15	5-10
PC-23	Nuytsia	floribunda			No	Native				
PC-23	Pericalymma	ellipticum	var.	ellipticum	No	Native			5	0.5-1
PC-23	Phlebocarya	ciliata			No	Native			+	0.2
PC-23	Pimelia		sp.	indet	No	Native			+	0.2
PC-23	Pultenaea	ochreatea			No	Native				
PC-23	Pultenaea	ochreatea			No	Native			0.5	0.5-1
PC-23	Schoenus	curvifolius			No	Native			+	0.1
PC-23	Schoenus	efoliatus			No	Native			+	0.3
PC-23	Schoenus		sp.	indet	No	Native			+	0.3
PC-23	Schoenus		sp.	indet	No	Native			+	0.4
PC-23	Stylidium	diversifolium			No	Native			+	0.2
PC-23	Stylidium	repens			No	Native			+	0.1
PC-23	Stylidium	violaceum			No	Native			+	0.3
PC-23	Stylidium		sp.	indet	No	Native			+	0.05
PC-23	Thelymitra	crinita			No	Native			+	0.3

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-23	Tremula	tremulina			No	Native			55	1
PC-23	Xanthorrhoea	brunonis			No	Native			1	1-2
PC-23	Xanthorrhoea	preissii			No	Native			+	1.5-2.5
PC-23	Xanthosia	huegelii			No	Native			+	0.1
PC-24	*Aira	caryophyllea			No	Introduced			+	0.1
PC-24	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-24	*Ursinia	antheroides			No	Introduced			+	0.2
PC-24	Acacia	semitrullata			Yes	Native	8	Count	+	0.2
PC-24	Amphipogon	turbinatus			No	Native			+	0.4
PC-24	Austrostipa	mollis			No	Native			+	0.5
PC-24	Banksia	attenuata			No	Native			2	5
PC-24	Banksia	ilicifolia			No	Native			1	5
PC-24	Burchardia	congesta			No	Native			+	0.4
PC-24	Calytrix	flavescens			No	Native			1	0.3
PC-24	Conostylis	aculeata			No	Native			+	0.4
PC-24	Drosera		sp.	indet	No	Native			+	0.2
PC-24	Eremaea	pauciflora			No	Native			35	0.5-1.5
PC-24	Gompholobium	capitatum			No	Native			+	0.1
PC-24	Hibbertia	subvaginata			No	Native			+	0.2
PC-24	Hovea	trisperma			No	Native			+	0.4
PC-24	Hypolaena	exsulca			No	Native			0.5	0.3
PC-24	Kunzea	glabrescens			No	Native			18	2-3
PC-24	Kunzea	recurva			No	Native			+	1
PC-24	Lechenaultia	floribunda			No	Native				
PC-24	Leucopogon	conostephioides			No	Native			+	0.25
PC-24	Leucopogon	glabellus			No	Native			+	0.5
PC-24	Leucopogon	oxycedrus			No	Native			1	0.2
PC-24	Levenhookia	stipitata			No	Native			+	0.1
PC-24	Lomandra	caespitosa			No	Native			+	0.4
PC-24	Lomandra	caespitosa			No	Native			+	0.3
PC-24	Lyginia	imberbis			No	Native			0.5	0.3
PC-24	Melaleuca	subtrigona			No	Native			5	0.5
PC-24	Phlebocarya	ciliata			No	Native			0.5	0.3
PC-24	Phylangium	paradoxum			No	Native			+	0.1
PC-24	Phyllota	gracilis			No	Native			4	0.3
PC-24	Podotheca	angustifolia			No	Native			+	0.1
PC-24	Restionaceae		sp.	indet	No	Native			+	0.6
PC-24	Rhodanthe	citrina			No	Native			+	0.1
PC-24	Stylidium	pilferum			No	Native			+	0.3
PC-24	Tetrapora	glomerata			No	Native			0.5	0.2
PC-24	Xanthosia	huegelii			No	Native			+	0.1
PC-25	*Aira	cupaniana			No	Introduced			+	0.1
PC-25	*Hypochaeris	glabra			No	Introduced				
PC-25	*Pentameris	airoides			No	Introduced			+	0.15
PC-25	*Ursinia	antheroides			No	Introduced			0.5	0.15
PC-25	*Vulpia	bromoides			No	Introduced			+	0.1
PC-25	Acacia	semitrullata			Yes	Native	25	Count	0.5	0.3
PC-25	Acacia	stenoptera			No	Native			+	1
PC-25	Allocasuarina	fraseriana			No	Native			1	5
PC-25	Banksia	attenuata			No	Native				
PC-25	Boronia	spathulata			No	Native			+	0.5
PC-25	Bossiaea	eriocarpa			No	Native			2	0.35
PC-25	Calytrix	flavescens			No	Native			4	0.2
PC-25	Cassytha	flava			No	Native			+	Cr



Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-25	Centrolepis	pilosa			No	Native			+	0.02
PC-25	Conostylis	serrulata			No	Native			+	0.3
PC-25	Dasypogon	bromeliifolius			No	Native			25	0.3
PC-25	Desmocladius	fasciculatus			No	Native			1	0.1
PC-25	Eremaea	pauciflora			No	Native			30	1-2
PC-25	Gompholobium	capitatum			No	Native				
PC-25	Gompholobium	tomentosum			No	Native			+	0.25
PC-25	Hypocalymma	angustifolium			No	Native			+	0.2
PC-25	Hypolaena	exsulca			No	Native			+	0.1
PC-25	Hypolaena	exsulca			No	Native			1	0.4
PC-25	Kunzea	glabrescens			No	Native			20	2-5
PC-25	Laxamania	sessiliflora			No	Native			+	0.1
PC-25	Leucopogon	conostephioides			No	Native			0.5	0.35
PC-25	Leucopogon	oxycedrus			No	Native			0.5	0.3
PC-25	Levenhookia	stipitata			No	Native			+	0.03
PC-25	Lomandra	caespitosa			No					
PC-25	Lomandra	hermaphrodita			No	Native			+	0.15
PC-25	Lyginia	imberbis			No	Native			2	0.4
PC-25	Melaleuca	subtrigona			No	Native			5	0.4-0.7
PC-25	Phlebocarya	ciliata			No	Native			+	0.2
PC-25	Podotheca	angustifolia			No	Native			+	0.05
PC-25	Quinetia	urvillei			No	Native			+	0.03
PC-25	Rhodanthe	citrina			No	Native			+	0.1
PC-25	Stylidium	piliferum			No	Native			+	0.1
PC-25	Stylidium	repens			No	Native			+	0.1
PC-25	Trachymene	pilosa			No	Native			+	0.05
PC-25	Xanthorrhoea	brunonis			No	Native			+	1
PC-25	Xanthosia	huegelii			No	Native			+	0.1
PC-25	Xylomelum	occidentale			No	Native				
PC-26	?Asparagaceae		sp.	indet	No	Native			+	0.15
PC-26	Acacia	extensa			No	Native			0.25	1
PC-26	Agrostocrinum	scabrum			No	Native			+	0.5
PC-26	Allocasuarina	fraseriana			No	Native			8	3-20
PC-26	Austrostipa	compressa			No	Native			+	0.3
PC-26	Banksia	attenuata			No	Native			3	6
PC-26	Boronia	spathulata			No	Native			+	0.3
PC-26	Bossiaea	eriocarpa			No	Native			20	0.5
PC-26	Burchardia	congesta			No	Native			+	
PC-26	Calytrix	flavescens			No	Native				
PC-26	Conostylis	serrulata			No	Native			+	0.2
PC-26	Desmocladius	fasciculatus			No	Native			0.5	0.2
PC-26	Eucalyptus	marginata	subsp.	marginata	No	Native			7	10-25
PC-26	Gompholobium	capitatum			No	Native			+	0.1
PC-26	Hibbertia	subvaginata			No	Native			5	0.2
PC-26	Hovea	trisperma			No	Native			+	0.2
PC-26	Isotoma	hypocrateriformis			No	Native			+	0.2
PC-26	Kunzea	glabrescens			No	Native			+	1.8
PC-26	Laxamania	sessiliflora			No	Native			+	0.1
PC-26	Leucopogon	oxycedrus			No	Native			5	0.6
PC-26	Lomandra	caespitosa			No	Native			3	0.4
PC-26	Lomandra	hermaphrodita			No	Native			+	0.2
PC-26	Lomandra	sericea			No	Native			1	0.2
PC-26	Loxocarya	cinerea			No	Native			+	0.1
PC-26	Lyginia	imberbis			No	Native			+	0.7

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-26	Nuytsia	floribunda			No	Native			+	2-6
PC-26	Orchidaceae		sp.	indet	No	Native			+	0.2
PC-26	Persoonia	longifolia			No	Native			0.25	0.4-3
PC-26	Petrophile	linearis			No	Native			2	0.5
PC-26	Phlebocarya	ciliata			No	Native			1	0.3
PC-26	Rhodanthe	citrina			No	Native			+	0.1
PC-26	Stylidium	violaceum			No	Native			+	0.4
PC-26	Xanthosia	huegelii			No	Native			+	0.15
PC-26	Xylomelum	occidentale			No	Native			10	5-8
PC-27	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-27	*Pentameris	airoides			No	Introduced			+	0.1
PC-27	*Pinus	radiata			No	Introduced				
PC-27	*Vulpia	bromoides			No	Introduced			+	0.1
PC-27	Acacia	celastrifolia			No	Native			1	1-2
PC-27	Acacia		cf.	trigonophylla	No	Native			1	1-2
PC-27	Adenanthos	obovatus			No	Native			1	0.5
PC-27	Astartea	scoparia			No	Native			0.5	1-2
PC-27	Billardiera	heterophylla			No	Native			+	0.25
PC-27	Boronia	spathulata			No	Native			+	0.3
PC-27	Caesia	occidentalis			No	Native			+	0.3
PC-27	Chordifex	laxus			No	Native			2	0.3
PC-27	Cyathochaeta	avenacea			No	Native			0.5	0.4
PC-27	Dasyopogon	bromeliifolius			No	Native			1	0.4
PC-27	Hibbertia	pulchra	var.	pulchra	No	Native			1	0.15
PC-27	Hibbertia	vaginata			No	Native			+	0.25
PC-27	Hypocalymma	angustifolium			No	Native			35	0.5-1
PC-27	Hypolaena	exsulca			No	Native			+	0.3
PC-27	Isolepis	congrua			No	Native			+	0.03
PC-27	Kunzea	glabrescens			No	Native			1	1-2
PC-27	Leucopogon	glabellus			No	Native			0.5	0.5-1
PC-27	Levenhookia	pusilla			No	Native			+	0.05
PC-27	Lyginia	imberbis			No	Native			+	0.4
PC-27	Melaleuca	preissiana			No	Native			50	3-10
PC-27	Podotheca	angustifolia			No	Native			+	0.1
PC-27	Poranthera	microphylla			No	Native			+	0.02
PC-27	Pterostylis		sp.	crinkled leaf	No	Native			+	0.2
PC-27	Rhodanthe	citrina			No	Native			+	0.05
PC-27	Stylidium	repens			No	Native			0.25	0.05
PC-27	Stylidium	violaceum			No	Native			+	0.3
PC-27	Thysanotus	tenellus			No	Native			+	0.2
PC-27	Trachymene	pilosa			No	Native			+	0.1
PC-27	Tremula	tremulina			No	Native			25	0.5-1
PC-27	Xanthorrhoea	brunonis			No	Native			+	1
PC-27	Xanthosia	huegelii			No	Native			+	0.1
PC-28	*Aira	caryophyllea			No	Introduced			+	0.1
PC-28	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-28	*Pentameris	airoides			No	Introduced			+	0.2
PC-28	*Ursinia	antheroides			No	Introduced			+	0.1
PC-28	*Vulpia	bromoides			No	Introduced			+	0.2
PC-28	Acacia	alata			No	Native			+	0.1
PC-28	Acacia	pulchella	var.	pulchella	No	Native			+	0.3
PC-28	Aotus	gracillima			No	Native				
PC-28	Aotus	procumbens			No	Native			+	0.6
PC-28	Astartea	scoparia			No	Native			2	1.5-2

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-28	Austrostipa	compressa			No	Native			+	0.2
PC-28	Boronia	spathulata			No	Native			+	0.2
PC-28	Caesia	micrantha			No	Native			+	0.4
PC-28	Conospermum	flexuosum			No	Native			0.5	0.5
PC-28	Conostylis	aculeata			No	Native			+	0.3
PC-28	Cyathochaeta	avenacea			No	Native			2	0.3
PC-28	Cytogonidium	leptocarpoides			No	Native			+	0.4
PC-28	Dampiera	pedunculata			No	Native			+	0.2
PC-28	Darwinia	oederoides			No	Native			+	0.2
PC-28	Dasypogon	bromeliifolius			No	Native			+	0.3
PC-28	Gompholobium	capitatum			No	Native			+	0.1
PC-28	Hibbertia	vaginata			No	Native			+	0.3
PC-28	Hibbertia	vaginata			No	Native				
PC-28	Hypocalymma	angustifolium			No	Native			45	0.5-0.8
PC-28	Kunzea	recurva			No	Native			2	1-1.5
PC-28	Laxmania	sessiliflora			No	Native			+	0.1
PC-28	Leucopogon	pendulus			No	Native			+	0.3
PC-28	Melaleuca	preissiana			No	Native			35	2-8
PC-28	Orchidaceae		sp.	indet	No	Native			+	0.2
PC-28	Pericalymma	ellipticum	var.	ellipticum	No	Native			+	0.5
PC-28	Phlebocarya	ciliata			No	Native			+	0.2
PC-28	Phyllangium	paradoxum			No	Native			+	0.1
PC-28	Podolepis	gracilis			No	Native			+	0.1
PC-28	Podotheca	angustifolia			No	Native			+	0.1
PC-28	Restionaceae		sp.	indet	No	Native			0.5	0.1
PC-28	Rhodanthe	citrina			No	Native			+	0.2
PC-28	Stackhousia	huegelii			No	Native			+	0.3
PC-28	Stylidium	repens			No	Native			+	0.1
PC-28	Tremula	tremulina			No	Native			7	0.5
PC-28	Xanthorrhoea	gracilis			No	Native			+	0.3
PC-28	Xanthosia	huegelii			No	Native			+	0.1
PC-29	*Aira	caryophyllea			No	Introduced			+	0.1
PC-29	*Briza	maxima			No	Introduced			+	0.2
PC-29	*Briza	minor			No	Introduced			+	0.1
PC-29	*Lysimachia	arvensis			No	Introduced				
PC-29	*Pentameris	airoides			No	Introduced			+	0.1
PC-29	*Pinus	radiata			No	Introduced			0.5	1-2
PC-29	*Sonchus	oleraceus			No	Introduced				
PC-29	*Vulpia	bromoides			No	Introduced			+	0.1
PC-29	Acacia	celastrifolia			No	Native			2	2-3
PC-29	Acacia	incurva			No	Native			+	0.2
PC-29	Acacia		cf.	trigonophylla	No	Native				
PC-29	Aotus	gracillima			No	Native			+	0.4
PC-29	Astartea	scoparia			No	Native			3	1-2
PC-29	Billardiera	heterophylla			No	Native			+	0.1
PC-29	Caesia	occidentalis			No	Native			+	0.35
PC-29	Chordifex	laxus			No	Native				
PC-29	Cyathochaeta	avenacea			No	Native			7	0.3
PC-29	Eucalyptus	rudis	subsp.	rudis	No	Native			5	5-10
PC-29	Eutaxia	virgata			No	Native			+	0.3
PC-29	Gompholobium	marginatum			No	Native			+	0.1
PC-29	Hakea	varia			No	Native			2	2-3
PC-29	Hibbertia	stellaris			No	Native			0.5	0.1
PC-29	Hydrocotyle	callicarpa			No	Native				

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-29	Hypocalymma	angustifolium			No	Native			15	0.5
PC-29	Hypolaena	exsulca			No	Native			1	0.35
PC-29	Lomandra	hermaphrodita			No	Native			+	0.1
PC-29	Melaleuca	incana	subsp.	incana	No	Native			15	0.5-1.5
PC-29	Melaleuca	preissiana			No	Native			2	5-10
PC-29	Mirbelia	dilatata			No	Native			+	1
PC-29	Patersonia	occidentalis			No	Native			2	0.3
PC-29	Pericalymma	ellipticum	var.	ellipticum	No	Native			3	0.3-0.6
PC-29	Rytidosperma	setaceum			No	Native			+	0.2
PC-29	Scaevola	calliptera			No	Native			+	0.1
PC-29	Stylidium	crassifolium			No	Native			+	0.1
PC-29	Taxandria	linearifolia			No	Native			15	2-3
PC-29	Thelymitra	crinita			No	Native			+	0.3
PC-29	Tremula	tremulina			No	Native			2	0.5-1
PC-29	Velleia	trinervis			No	Native			+	0.1
PC-30	*Aira	caryophyllea			No	Introduced			+	0.1
PC-30	*Disa	bracteata			No	Introduced			+	0.1
PC-30	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-30	*Ursinia	anthemoides			No	Introduced			+	0.2
PC-30	Acacia	extensa			No	Native			+	0.6
PC-30	Acacia		cf.	trigonophylla	No	Native			+	0.1
PC-30	Allocasuarina	fraseriana			No	Native			2	4
PC-30	Austrostipa	compressa			No	Native			+	0.2
PC-30	Babingtonia	camphorosmae			No	Native			+	0.3
PC-30	Bossiaea	eriocarpa			No	Native			2	0.3
PC-30	Calytrix	flavescens			No	Native			4	0.3
PC-30	Conostylis	aculeata			No	Native			+	0.3
PC-30	Conostylis	serrulata			No	Native			+	0.1
PC-30	Crassula	colorata	var.	colorata	No	Native			+	0.02
PC-30	Dasypogon	bromeliifolius			No	Native			7	0.5
PC-30	Desmocladius	fasciculatus			No	Native			+	0.3
PC-30	Eucalyptus	marginata	subsp.	marginata	No	Native			15	6-25
PC-30	Gompholobium	tomentosum			No	Native			+	0.1
PC-30	Hemiandra	pungens			No	Native			+	0.1
PC-30	Hibbertia	vaginata			No	Native			+	0.2
PC-30	Hyalosperma	demissum			No	Native			+	0.02
PC-30	Hypocalymma	angustifolium			No	Native			+	0.4
PC-30	Isotoma	hypocrateriformis			No	Native			+	0.1
PC-30	Kennedia	prostrata			No	Native			+	0.1
PC-30	Lagenophora	huegelii			No	Native			+	0.1
PC-30	Leptospermum	erubescens			No	Native				
PC-30	Loxocarya	cinerea			No	Native			+	0.1
PC-30	Millotia	tenuifolia	var.	tenuifolia	No	Native			+	0.1
PC-30	Nuytsia	floribunda			No	Native			2	1-5
PC-30	Phyllanthum	paradoxum			No	Native			+	0.05
PC-30	Podotrochea	angustifolia			No	Native			+	0.1
PC-30	Rhodanthe	citrina			No	Native			+	0.1
PC-30	Scaevola	calliptera			No	Native			+	0.1
PC-30	Stylidium		sp.	indet	No	Native			+	0.2
PC-30	Trachymene	pilosa			No	Native			+	0.1
PC-30	Verticordia	densiflora	var.	densiflora	No	Native			+	0.5
PC-30	Xanthorrhoea	brunonis			No	Native			+	2
PC-30	Xanthorrhoea	preissii			No	Native			4	1-2.5
PC-31	*Aira	caryophyllea			No	Introduced			+	0.1

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-31	*Hypochaeris	glabra			No	Introduced			+	0.1
PC-31	*Pentameris	airoides			No	Introduced			+	0.2
PC-31	*Pentameris	airoides			No	Introduced			+	0.1
PC-31	*Ursinia	anthemoides			No	Introduced			+	0.1
PC-31	Adenanthos	obovatus			No	Native			1	0.3-0.6
PC-31	Austrostipa	compressa			No	Native			+	0.2
PC-31	Austrostipa	mollis			No	Native				
PC-31	Calothamnus	lehmannii			No	Native			+	0.2
PC-31	Cassytha	flava			No	Native			+	0.1
PC-31	Crassula	colorata	var.	colorata	No	Native			+	0.01
PC-31	Dasypogon	bromeliifolius			No	Native			35	0.5
PC-31	Gompholobium	capitatum			No	Native			+	0.15
PC-31	Gompholobium	tomentosum			No	Native			+	0.2
PC-31	Hemiandra	pungens			No	Native			+	0.1
PC-31	Hypolaena	exsulca			No	Native			5	0.4
PC-31	Kunzea	glabrescens			No	Native			6	1-2.5
PC-31	Kunzea	recurva			No	Native			4	1-2
PC-31	Lepidosperma	squamatum			No	Native			+	0.2
PC-31	Leucopogon	conostephioides			No	Native			+	0.2
PC-31	Loxocarya	cinerea			No	Native			+	0.1
PC-31	Lyginia	imberbis			No	Native			+	0.2
PC-31	Lyginia	imberbis			No	Native			+	0.4
PC-31	Melaleuca	preissiana			No	Native			2	3
PC-31	Melaleuca	trichophylla			No	Native			3	0.5
PC-31	Nuytsia	floribunda			No	Native			1	3.5
PC-31	Pericalymma	ellipticum	var.	ellipticum	No	Native			3	0.5-1
PC-31	Phlebocarya	ciliata			No	Native			16	0.3
PC-31	Rhodanthe	citrina			No	Native			+	0.1
PC-31	Stylidium	repens			No	Native			+	0.1
PC-31	Stylidium		sp.	indet	No	Native			+	0.2
PC-31	Trachymene	pilosa			No	Native			+	0.1
PC-31	Xanthosia	huegelii			No	Native			+	0.1
PC-31	Xylomelum	occidentale			No	Native			+	0.5
PC-31	*Aira	caryophyllea			No	Introduced			<1	0.1
PC-31	*Hypochaeris	glabra			No	Introduced			<1	0.1
PC-31	*Pentameris	airoides			No	Introduced			<1	0.2
PC-31	*Pentameris	airoides			No	Introduced			<1	0.1
PC-31	*Ursinia	anthemoides			No	Introduced			<1	0.1
PC-31	Adenanthos	obovatus			No	Native			1	0.3-0.6
PC-31	Austrostipa	compressa			No	Native			<1	0.2
PC-31	Austrostipa	mollis			No	Native				
PC-31	Calothamnus	lehmannii			No	Native			<1	0.2
PC-31	Cassytha	flava			No	Native			<1	0.1
PC-31	Crassula	colorata	var.	colorata	No	Native			<1	0.01
PC-31	Dasypogon	bromeliifolius			No	Native			35	0.5
PC-31	Gompholobium	capitatum			No	Native			<1	0.15
PC-31	Gompholobium	tomentosum			No	Native			<1	0.2
PC-31	Hemiandra	pungens			No	Native			<1	0.1
PC-31	Hypolaena	exsulca			No	Native			5	0.4
PC-31	Kunzea	glabrescens			No	Native			6	1-2.5
PC-31	Kunzea	recurva			No	Native			4	1-2
PC-31	Lepidosperma	squamatum			No	Native			<1	0.2
PC-31	Loxocarya	cinerea			No	Native			<1	0.1
PC-31	Lyginia	imberbis			No	Native			<1	0.2

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-31	Lyginia	imberbis			No	Native			<1	0.4
PC-31	Melaleuca	preissiana			No	Native			2	3
PC-31	Melaleuca	trichophylla			No	Native			3	0.5
PC-31	Nuytsia	floribunda			No	Native			1	3.5
PC-31	Pericalymma	ellipticum	var.	ellipticum	No	Native			3	0.5-1
PC-31	Phlebocarya	ciliata			No	Native			16	0.3
PC-31	Rhodanthe	citrina			No	Native			<1	0.1
PC-31	Stylidium	repens			No	Native			<1	0.1
PC-31	Stylidium		sp.	indet	No	Native			<1	0.2
PC-31	Styphelia	conostephioides			No	Native			<1	0.2
PC-31	Trachymene	pilosa			No	Native			<1	0.1
PC-31	Xanthosia	huegelii			No	Native			<1	0.1
PC-31	Xylomelum	occidentale			No	Native			<1	0.5
PC-32	*Pentameris	airoides			No	Introduced		Estimate	<1	0.1
PC-32	*Vulpia	bromoides			No	Introduced		Estimate	<1	0.2
PC-32	Acacia	pulchella	var.	pulchella	No	Native		Estimate	0.5	1
PC-32	Acacia	stenoptera			No	Native		Estimate	<1	0.3
PC-32	Allocauarina	humilis			No	Native		Estimate	5	1-2
PC-32	Amphipogon	debilis			No	Native		Estimate	<1	0.3
PC-32	Austrostipa	mollis			No	Native		Estimate	<1	0.5
PC-32	Babingtonia	camphorosmae			No	Native		Estimate	10	0.3
PC-32	Banksia	bipinnatifida			No	Native		Estimate	<1	0.2
PC-32	Banksia	dallanneyi			No	Native		Estimate	1	0.2
PC-32	Calytrix	flavescens			No	Native		Estimate	<1	0.3
PC-32	Cyanothamnus	ramosus	subsp.	anethifolius	No	Native		Estimate	1	0.1
PC-32	Daviesia	decurrens	subsp.	hamata	No	Native		Estimate	<1	0.5
PC-32	Daviesia	preissii			No	Native		Estimate	<1	0.3
PC-32	Desmocladus	fasciculatus			No	Native		Estimate	1	0.1
PC-32	Eucalyptus	marginata	subsp.	marginata	No	Native		Estimate	5	5-15
PC-32	Glischrocaryon	aureum			No	Native		Estimate	<1	0.6
PC-32	Gompholobium	tomentosum			No	Native		Estimate	<1	0.2
PC-32	Gompholobium	tomentosum			No	Native		Estimate	<1	0.5
PC-32	Grevillea	quercifolia			No	Native		Estimate	<1	0.3
PC-32	Hakea	prostrata			No	Native		Estimate	1.5	1
PC-32	Hibbertia	vaginata			No	Native		Estimate	<1	0.3
PC-32	Hovea	chorizemifolia			No	Native		Estimate	<1	0.2
PC-32	Hybanthus	floribundus	subsp.	floribundus	No	Native		Estimate	<1	0.15
PC-32	Hypocalymma	angustifolium			No	Native		Estimate	<1	0.4
PC-32	Labichea	punctata			No	Native		Estimate	<1	0.1
PC-32	Lepidosperma	pubisquameum			No	Native		Estimate	1	0.35
PC-32	Lepidosperma	squamatum			No	Native		Estimate	0.5	0.6
PC-32	Leptospermum	erubescens			No	Native		Estimate	50	0.5-2.5
PC-32	Levenhookia	pusilla			No	Native		Estimate	<1	0.05
PC-32	Lomandra	caespitosa			No	Native		Estimate	<1	0.2
PC-32	Mesomelaena	tetragona			No	Native		Estimate	5	0.5
PC-32	Mesomelaena	tetragona			No	Native		Estimate	-	-
PC-32	Millotia	tenuifolia	var.	tenuifolia	No	Native		Estimate	<1	0.1
PC-32	Morelotia	octandra			No	Native		Estimate	<1	0.4
PC-32	Netrostylis		sp.	Jarrah Forest (R. Davis 7391)	No	Native		Estimate	0.25	0.04
PC-32	Neurachne	alopeuroidea			No	Native		Estimate	<1	0.3
PC-32	Podotheca	angustifolia			No	Native		Estimate	<1	0.1
PC-32	Pterochaeta	paniculata			No	Native		Estimate	0.5	0.1
PC-32	Rhytidisperma	setaceum			No	Native		Estimate	<1	0.4
PC-32	Rinzia	fumana			No	Native		Estimate	0.5	0.15

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-32	Stirlingia	seselifolia			No	Native		Estimate	-	-
PC-32	Stylidium	tenue	subsp.	tenue	No	Native		Estimate	<1	0.1
PC-32	Styphelia	erubescens			No	Native		Estimate	<1	0.3
PC-32	Styphelia	pallida			No	Native		Estimate	<1	0.1
PC-32	Thysanotus	sparteus			No	Native	1	Count	<1	0.6
PC-32	Xanthorrhoea	preissii			No	Native		Estimate	0.5	1-2.5
PC-33	Allocasuarina	fraseriana			No	Native		Estimate	-	-
PC-33	Allocasuarina	humilis			No	Native		Estimate	2	1-2
PC-33	Banksia	bipinnatifida			No	Native		Estimate	0.5	0.15
PC-33	Banksia	dallanneyi			No	Native		Estimate	16	0.15
PC-33	Billardiera	variifolia			No	Native		Estimate	<1	Cl
PC-33	Bossiaea	ornata			No	Native		Estimate	2	0.3
PC-33	Cassytha	glabella			No	Native		Estimate	<1	Cl
PC-33	Daviesia	preissii			No	Native		Estimate	<1	0.2
PC-33	Desmocladius	fasciculatus			No	Native		Estimate	0.5	0.1
PC-33	Eucalyptus	marginata	subsp.	marginata	No	Native		Estimate	11	15-30
PC-33	Eucalyptus	wandoo			No	Native		Estimate	15	15-30
PC-33	Gahnia	aristata			No	Native		Estimate	2	0.3
PC-33	Hakea	lissocarpha			No	Native		Estimate	4	0.5-1
PC-33	Hibbertia	commutata			No	Native		Estimate	1	0.3
PC-33	Hovea	chorizemifolia			No	Native		Estimate	<1	0.2
PC-33	Labichea	punctata			No	Native		Estimate	<1	0.1
PC-33	Lepidosperma	leptostachyum			No	Native		Estimate	2	0.65
PC-33	Lepidosperma	pubisquamum			No	Native		Estimate	<1	0.3
PC-33	Levenhookia	pusilla			No	Native		Estimate	<1	0.05
PC-33	Lobelia	gibbosa			No	Native	2	Count	<1	0.4
PC-33	Lomandra	sericea			No	Native		Estimate	<1	0.6
PC-33	Netrostylis		sp.	Jarrah Forest (R. Davis 7391)	No	Native		Estimate	0.5	0.4
PC-33	Patersonia	pygmaea			No	Native		Estimate	<1	0.05
PC-33	Petrophile	linearis			No	Native		Estimate	0.5	0.5
PC-33	Pterochaeta	paniculata			No	Native		Estimate	<1	0.1
PC-33	Rytidosperma	setaceum			No	Native		Estimate	<1	0.2
PC-33	Styphelia	pallida			No	Native		Estimate	<1	0.1
PC-33	Trymalium	ledifolium			No	Native		Estimate	<1	0.6
PC-34	*Acacia	pycnantha			No	Introduced		Estimate	1	0.5-8
PC-34	*Pentameris	airoides			No	Introduced		Estimate	<1	0.1
PC-34	*Ursinia	anthemoides			No	Introduced		Estimate	1	0.2
PC-34	Acacia	extensa			No	Native		Estimate	1	1-2
PC-34	Acacia	insolita	subsp.	insolita	No	Native		Estimate	-	-
PC-34	Acacia	stenoptera			No	Native		Estimate	<1	0.2
PC-34	Actinotus	glomeratus			No	Native		Estimate	<1	0.1
PC-34	Adenanthos	obovatus			No	Native		Estimate	1	0.4
PC-34	Allocasuarina	humilis			No	Native		Estimate	<1	1-2
PC-34	Babingtonia	camphorosmae			No	Native		Estimate	-	-
PC-34	Banksia	attenuata			No	Native		Estimate	1	3
PC-34	Banksia	dallanneyi			No	Native		Estimate	<1	0.15
PC-34	Billardiera	laxiflora			No	Native		Estimate	<1	Cl
PC-34	Boronia	spathulata			No	Native		Estimate	<1	0.2
PC-34	Bossiaea	ericarpa			No	Native		Estimate	2	0.3
PC-34	Burchardia	congesta			No	Native		Estimate	<1	0.5
PC-34	Caladenia	flava			No	Native		Estimate	3	0.3
PC-34	Cassytha	racemosa			No	Native		Estimate	0.5	Cl
PC-34	Conostylis	aculeata			No	Native		Estimate	<1	0.5
PC-34	Dasypogon	bromeliifolius			No	Native		Estimate	8	0.5

Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-34	Daviesia	incrassata	subsp.	incrassata	No	Native		Estimate	-	-
PC-34	Desmodcladus	fasciculatus			No	Native		Estimate	2	0.1
PC-34	Eucalyptus	marginata	subsp.	marginata	No	Native		Estimate	15	2-20
PC-34	Gompholobium	ovatum			No	Native		Estimate	<1	0.1
PC-34	Gompholobium	tomentosum			No	Native		Estimate	0.5	0.3
PC-34	Hakea	prostrata			No	Native		Estimate	-	-
PC-34	Hemiandra	pungens			No	Native		Estimate	<1	0.1
PC-34	Hibbertia	subvaginata			No	Native		Estimate	<1	0.2
PC-34	Hypocalymma	angustifolium			No	Native		Estimate	1	0.5-1
PC-34	Hypolaena	exsulca			No	Native		Estimate	<1	0.3
PC-34	Kunzea	glabrescens			No	Native		Estimate	<1	2-3
PC-34	Kunzea	recurva			No	Native		Estimate	0.5	1
PC-34	Lepidosperma	squamatum			No	Native		Estimate	3	0.6
PC-34	Leptospermum	erubescens			No	Native		Estimate	40	0.5-3
PC-34	Lomandra	nigricans			No	Native		Estimate	<1	0.2
PC-34	Lyginia	imberbis			No	Native		Estimate	3	0.5
PC-34	Macrozamia	riedlei			No	Native		Estimate	1	1
PC-34	Millotia	tenuifolia	var.	tenuifolia	No	Native		Estimate	<1	0.1
PC-34	Netrostylis		sp.	Jarrah Forest (R. Davis 7391)	No	Native		Estimate	<1	0.3
PC-34	Phyllangium	paradoxum			No	Native		Estimate	<1	0.1
PC-34	Podotheca	angustifolia			No	Native		Estimate	<1	0.1
PC-34	Pterochaeta	paniculata			No	Native		Estimate	<1	0.1
PC-34	Styphelia	erubescens			No	Native		Estimate	1.5	0.4-0.7
PC-34	Trachymene	pilosa			No	Native		Estimate	<1	0.1
PC-34	Xanthorrhoea	gracilis			No	Native		Estimate	1	1
PC-34	Xanthorrhoea	preissii			No	Native		Estimate	2	1-2
PC-34	Xanthosia	huegelii			No	Native		Estimate	<1	0.1
PC-34	Xylomelum	occidentale			No	Native		Estimate	4	0.5-1.5
PC-35	*Acacia	pycnantha			No	Introduced		Estimate	1	5
PC-35	Acacia	extensa			No	Native		Estimate	1	2.5
PC-35	Acacia	saligna			No	Native		Estimate	1	1-5
PC-35	Aotus	gracillima			No	Native		Estimate	<1	0.5-1
PC-35	Astartea	scoparia			No	Native		Estimate	10	1-2.5
PC-35	Billardiera	fusiformis			No	Native		Estimate	-	-
PC-35	Callistemon	glaucus			No	Native		Estimate	1	2-4
PC-35	Cassytha	racemosa			No	Native		Estimate	<1	Cl
PC-35	Corymbia	calophylla			No	Native		Estimate	1	1-10
PC-35	Cyathochaeta	avenacea			No	Native		Estimate	4	1
PC-35	Dampiera	pedunculata			No	Native		Estimate	<1	0.3
PC-35	Hypocalymma	angustifolium			No	Native		Estimate	3	0.6-1
PC-35	Juncus	pallidus			No	Native		Estimate	1	1.2
PC-35	Leptocarpus	tenax			No	Native		Estimate	3	1.5
PC-35	Machaerina	juncea			No	Native		Estimate	2	1-2
PC-35	Melaleuca	incana	subsp.	incana	No	Native		Estimate	2	1-2.5
PC-35	Melaleuca	preissiana			No	Native		Estimate	60	5-10
PC-35	Pericalymma	ellipticum	var.	ellipticum	No	Native		Estimate	<1	0.5-1
PC-35	Taxandria	linearifolia			No	Native		Estimate	20	1-6
PC-35	Tremula	tremulina			No	Native		Estimate	0.5	1-2
PC-35	Verticordia	densiflora	var.	cespitosa	No	Native		Estimate	-	-
PC-36	*Acacia	pycnantha			No	Introduced		Estimate	-	-
PC-36	Acacia	extensa			No	Native		Estimate	<1	1
PC-36	Adenanthos	obovatus			No	Native		Estimate	3	0.4-1
PC-36	Boronia	spathulata			No	Native		Estimate	<1	0.3
PC-36	Bossiaea	eriocarpa			No	Native		Estimate	<1	0.4



Site	Genus	Species	Infra Rank	Infra Name	Significant	Introduced/Native	No. Individuals	Count/Estimate	% Coverage	Plant Height (m)
PC-36	Calothamnus	sanguineus			No	Native		Estimate	2	0.3
PC-36	Calytrix	flavescens			No	Native		Estimate	<1	0.3
PC-36	Cassytha	flava			No	Native		Estimate	<1	Cl
PC-36	Cassytha	racemosa			No	Native		Estimate	<1	Cl
PC-36	Cyathochaeta	avenacea			No	Native		Estimate	2	0.5-1
PC-36	Dasypogon	bromeliifolius			No	Native		Estimate	35	0.5
PC-36	Desmodcladus	fasciculatus			No	Native		Estimate	5	0.15
PC-36	Eucalyptus	marginata	subsp.	marginata	No	Native		Estimate	9	10-20
PC-36	Gompholobium	burtonioides			No	Native		Estimate	<1	0.2
PC-36	Gompholobium	tomentosum			No	Native		Estimate	<1	0.4
PC-36	Hakea	ceratophylla			No	Native		Estimate	0.5	1
PC-36	Hibbertia	vaginata			No	Native		Estimate	<1	0.35
PC-36	Hypocalymma	angustifolium			No	Native		Estimate	26	0.5-1.3
PC-36	Hypolaena	exsulca			No	Native		Estimate	8	0.3
PC-36	Kunzea	glabrescens			No	Native		Estimate	1.5	2.5
PC-36	Kunzea	recurva			No	Native		Estimate	2	0.5-1.5
PC-36	Lepidosperma	squamatum			No	Native		Estimate	1	0.4
PC-36	Leucopogon	australis			No	Native		Estimate	0.5	0.5-1
PC-36	Lindsaea	linearis			No	Native		Estimate	<1	0.1
PC-36	Lyginia	imberbis			No	Native		Estimate	1	0.5
PC-36	Machaerina	juncea			No	Native		Estimate	1	1
PC-36	Melaleuca	preissiana			No	Native		Estimate	4	4-10
PC-36	Nuytsia	floribunda			No	Native		Estimate	-	-
PC-36	Pericalymma	ellipticum	var.	ellipticum	No	Native		Estimate	5	0.5-1
PC-36	Phlebocarya	ciliata			No	Native		Estimate	1.5	0.3
PC-36	Styphelia	erubescens			No	Native		Estimate	<1	0.3
PC-36	Verticordia	densiflora	var.	cespitosa	No	Native		Estimate	1	0.7
PC-36	Xanthorrhoea	preissii			No	Native		Estimate	1	1-2