



# Detailed Flora and Vegetation Survey

## Additional Areas North

Prepared for Talison Lithium Australia  
26 February 2024



Document Status						
Rev No.	Authors	Reviewer/s	Date	Approved for Issue		
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# EXECUTIVE SUMMARY

Talison Lithium Pty Ltd (Talison) currently operates a lithium mine at Greenbushes, situated approximately 250 km south of Perth in south-west Western Australia. Talison is proposing to increase output from the Greenbushes Mine over coming years and will need to extend infrastructure into areas situated adjacent to the existing mining operations. To inform longer term mine planning decisions, Onshore Environmental Consultants Pty Ltd (Onshore Environmental) was commissioned by Talison to undertake a single season detailed flora and vegetation survey of native vegetation situated east of the current mining operation and forming part of the Greenbushes State Forest block. Herein this is referred to as the study area.

The flora and vegetation survey was completed by a Principal Botanist between the 15<sup>th</sup> and 23<sup>rd</sup> of November 2023 under good seasonal conditions. A total number of 330 plant taxa (including varieties and subspecies) from 74 families and 217 genera were recorded from the study area. Species representation was greatest among the Fabaceae, Poaceae, Asteraceae, Myrtaceae, Asparagaceae, Cyperaceae, Haemodoraceae, Proteaceae and Stylidiaceae families. The most speciose genera were *Acacia*, *Stylium*, *Juncus*, *Lomandra*, *Conostylis*, *Gompholobium*, *Hakea* and *Melaleuca*.

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 the Western Australian *Biodiversity Conservation Act 2016* (BC Act). Additionally, no species were listed as Priority flora by the Department of Biodiversity Conservation and Attractions (DBCA) or were considered to represent significant range extensions. One plant taxon was considered to be a species of interest: *Lepidosperma* sp. ONS6731, which is currently being evaluated for its taxonomic status.

The total flora included 75 introduced plant species (weeds), with three species listed as Declared Pests under the *Biosecurity and Agriculture Management Act 2007* (BAM Act): *Gomphocarpus fruticosus* (Narrowleaf Cottonbush), *Rubus anglocandicans* (Blackberry) and *Asparagus asparagoides* (Bridal Creeper). One of these species, Narrowleaf Cottonbush, was listed under a control category: C3 Management.

A total of nine vegetation types were described and mapped from the study area. None of the vegetation types were aligned with any Commonwealth or State listed Threatened Ecological Communities (TECs) or State listed Priority Ecological Communities (PECs).

Vegetation condition was rated as either *very good* or *good* across the majority of the study area, however there were localised areas where vegetation was in a *degraded* or *completely degraded* condition. Vegetation structure was obviously altered in the north-west sector by historical mining, rehabilitation, road access and damming of the Lyons River. Heavy weed infestation, especially by Blackberry, was evident throughout riparian vegetation and was most prominent along drainage lines in the far south and wetlands in the north-west of the study area. Slightly reduced vegetation condition was evident wherever native vegetation adjoined cleared farmland, railway sidings and gazetted roads throughout the study area.

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# 1.0 INTRODUCTION

## 1.1 Preamble

Talison is a Western Australian mining company with operations based adjacent to the town of Greenbushes in south-west Western Australia. The Greenbushes Mine is located approximately 250 km south of Perth and 80 km south-east of the port of Bunbury (Figure 1).

The site comprises a number of open cut mining operations for tantalum, tin and spodumene (lithium). An underground tantalum operation has also been developed but is currently under care and maintenance. The Greenbushes pegmatite is the world's largest hard rock tantalum resource and the largest and highest-grade lithium minerals resource in the world. Minerals produced at Talison's Greenbushes Mine can be found in many different applications including mobile phones, computers, surgical implants, electronic devices, glassware, ceramics and batteries.

Talison has recently commenced an expansion at the Greenbushes Mine aimed at increasing supply of lithium to the world market. Longer term mine planning has identified the requirement for additional storage capacity for waste rock from mining operations. To inform longer term mine planning decisions, Onshore Environmental was commissioned by Talison to undertake a single season detailed flora and vegetation survey of the study area (Figure 1) situated immediately east of the approved Mine Development Envelope (MDE) and within the Greenbushes State Forest block.

## 1.2 Biogeographic Regions

The latest version of the Interim Biogeographic Regionalisation for Australia divides Australia into 89 bioregions based on climate, geology, landform, native vegetation and species information, and includes 419 sub-regions (Department of the Environment and Energy 2013). The bioregions and sub-regions are the reporting unit for assessing the status of native ecosystems and their level of protection in the National Reserve System. The study area is located within the Southern Jarrah Forest (JF2) sub-region within the Jarrah Forest bioregion. The Southern Jarrah Forest sub-region is described as "Duricrusted plateau of Yilgarn Craton characterised by Jarrah-Marri forest on laterite gravels and, in the eastern part, by Marri-Wandoo 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. The climate is Warm Mediterranean" (Hearn *et al.* 2002). The vegetation of the sub-region is described as "Jarrah-Marri forest in the west grading to Marri and Wandoo woodlands in the east. There are extensive areas of swamp vegetation in the south-east, dominated by Paperbarks and Swamp Yate. The understorey component of the forest and woodland reflects the more mesic nature of this area. The majority of the diversity in the communities occurs on the lower slopes or near granite soils where there are rapid changes in site conditions" (Hearn *et al.* 2002).

## TALISON LITHIUM Additional Areas North

**Figure 1**  
**Location of the Study Area**

### Legend

- Additional Areas North Study Area
- State Forest
- Talison Lithium Tenements



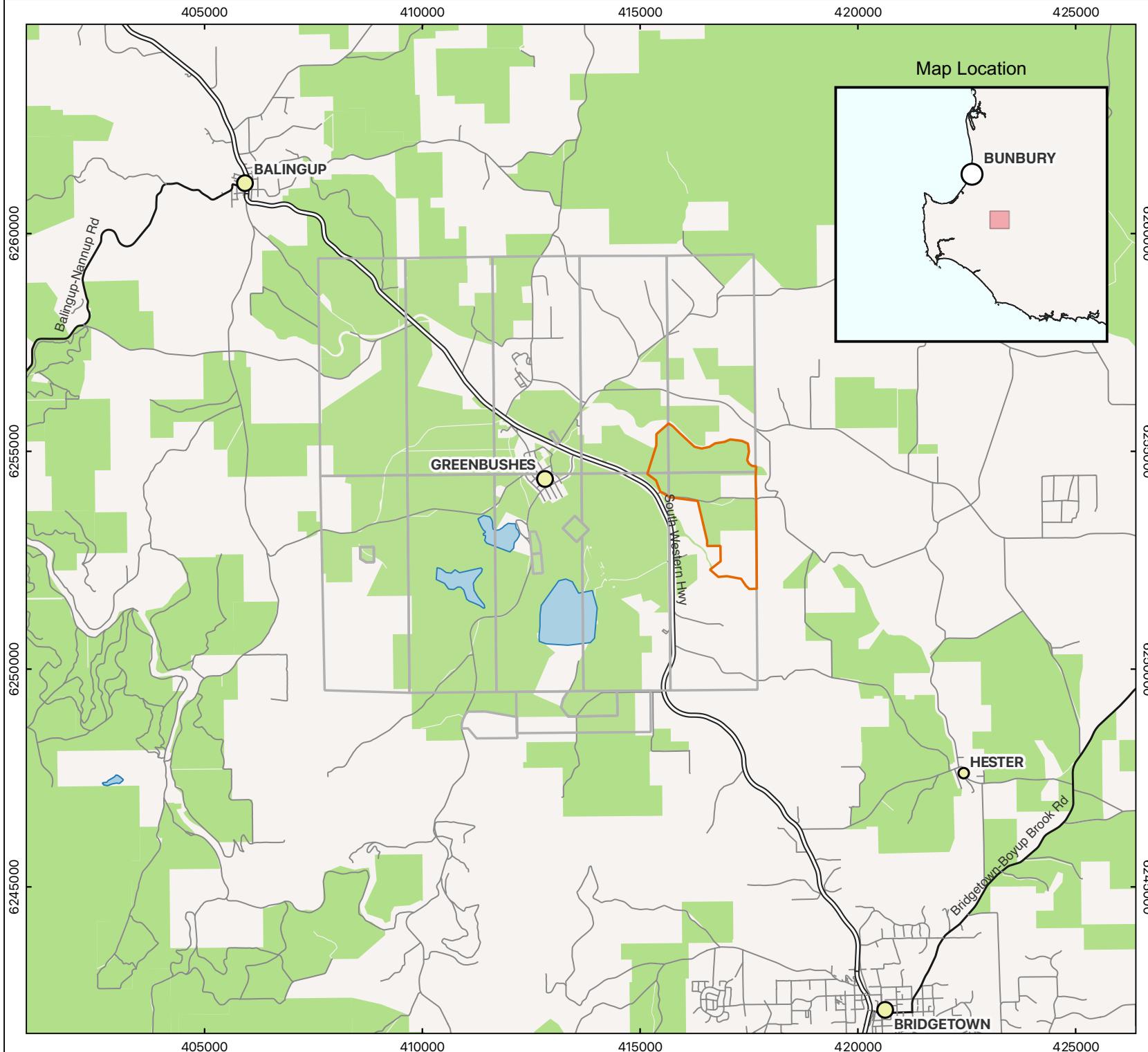
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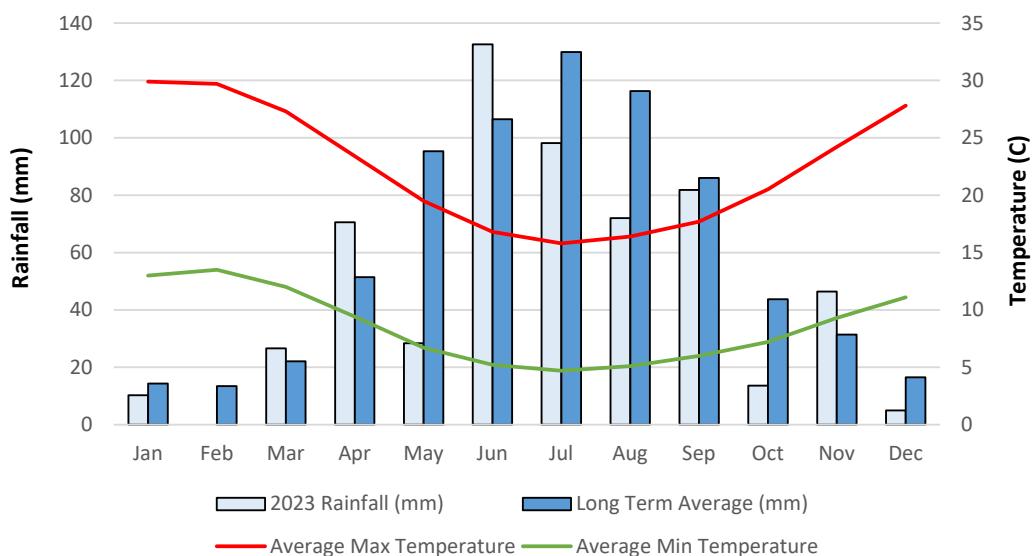
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## 1.3 Climate

The study area occurs on a boundary between the dry Mediterranean region to the north which experiences six dry months per year, and the moderate Mediterranean region to the south which experiences four dry months per year (Beard 1981). The Greenbushes region has cool wet winters and hot dry summers. No rainfall data for 2023 was recorded at the Greenbushes weather station. The nearest available rainfall data is from Bridgetown (approximately 10 km south-east of the study area). Average annual rainfall for Bridgetown is 726.8 mm (1998-2023) (Bureau of Meteorology [BOM] 2023),, with the majority of falls occurring during the winter months of June and July associated with cold fronts moving across the south-west of Western Australia. The annual total for 2023 was 726.8 mm, approximately 76% of the long term average. The rainfall total at Bridgetown for the three-month period prior to the November 2023 field survey was 246.0 mm, compared to the long term average of 334.8 mm for the same period (Figure 2). Despite below average rainfall prior to the field survey, seasonal conditions were rated as good in late Spring 2023.



**Figure 2** Rainfall and temperature data from the Bridgetown Weather Station (Bureau of Meteorology 2023).

## 1.4 Land Use

The major land uses in the Greenbushes region are state forest, residential, mining and agriculture. The study area occurs predominantly within the Greenbushes State Forest, with a privately owned lot in the south supporting a mix of Blue Gum and Pine plantation. Nearby towns include Bridgetown (approximately 10 km to the south-east) and Balingup (approximately 10 km to the north-west).

## 1.5 Landforms, Soils

Tille (1996) has mapped soils of the Wellington-Blackwood District, which includes the town sites of Greenbushes and Bridgetown on its southern boundary. The study area

occurs within the Hester Sub-system of the Darling Plateau System, and consists of undulating ridges and hill crests formed on laterite and gneiss which typically slope downwards off the main plateau into the surrounding Lowden Valleys System. The soils are mostly loamy gravels, sandy gravels and loamy earths.

The geology of the Greenbushes area is described as Archean granite of the Yilgarn Block (Wilde and Walker 1982) and the major soil types have been mapped by Tille (1961). The study area occurs across four subsystem of the Darling Plateau system within the Western darling Range zone:

- Balingup (BL) subsystem: moderately to steeply sloping, deeply incised valleys with loams;
- Dwellingup (DW) subsystem: broad, undulating lateritic divides with gravels and sands;
- Grimwade (GR) subsystem: valleys (30-70 m deep) with low gradients (5-20°), loams and loamy gravels; and
- Yarragil (YG) subsystem: minor valleys with swampy floors. The soils are mainly gravels with some sands and loams.

## 1.6 Flora and Vegetation

### 1.6.1 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 (state-wide, 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.

### 1.6.2 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 Heddle *et al.* (1980) and updated 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 four

vegetation complexes (as described and mapped by Mattiske and Havel 1998) intersecting the study area (Table 1, Figure 4).

**Table 1 Vegetation complexes, as mapped by Mattiske and Havel (1998), represented within the study area.**

Vegetation Complex	Vegetation Description
<b>Darling Plateau</b>	
Balingup (BL)	Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> on slopes and woodland of <i>Eucalyptus rudis</i> on the valley floor in the humid zone.
Catterick (CC1)	Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> mixed with <i>Eucalyptus patens</i> on slopes, <i>Eucalyptus rudis</i> and <i>Banksia littoralis</i> on valley floors in the humid zone.
Dwellingup (D1)	Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> on lateritic uplands in mainly humid and subhumid zones.
Grimwade (GR)	Tall open forest to open forest of <i>Corymbia calophylla</i> - <i>Eucalyptus marginata</i> subsp. <i>marginata</i> with <i>Eucalyptus patens</i> on slopes and <i>Eucalyptus rudis</i> over some <i>Agonis flexuosa</i> on lower slopes in the humid zone.

## TALISON LITHIUM Additional Areas North

**Figure 3**  
**Beard (1981) vegetation  
associations represented within  
the study area**

### Legend

-  Additional Areas North Study Area
-  Beard Vegetation Associations
-  BRIDGETOWN\_3



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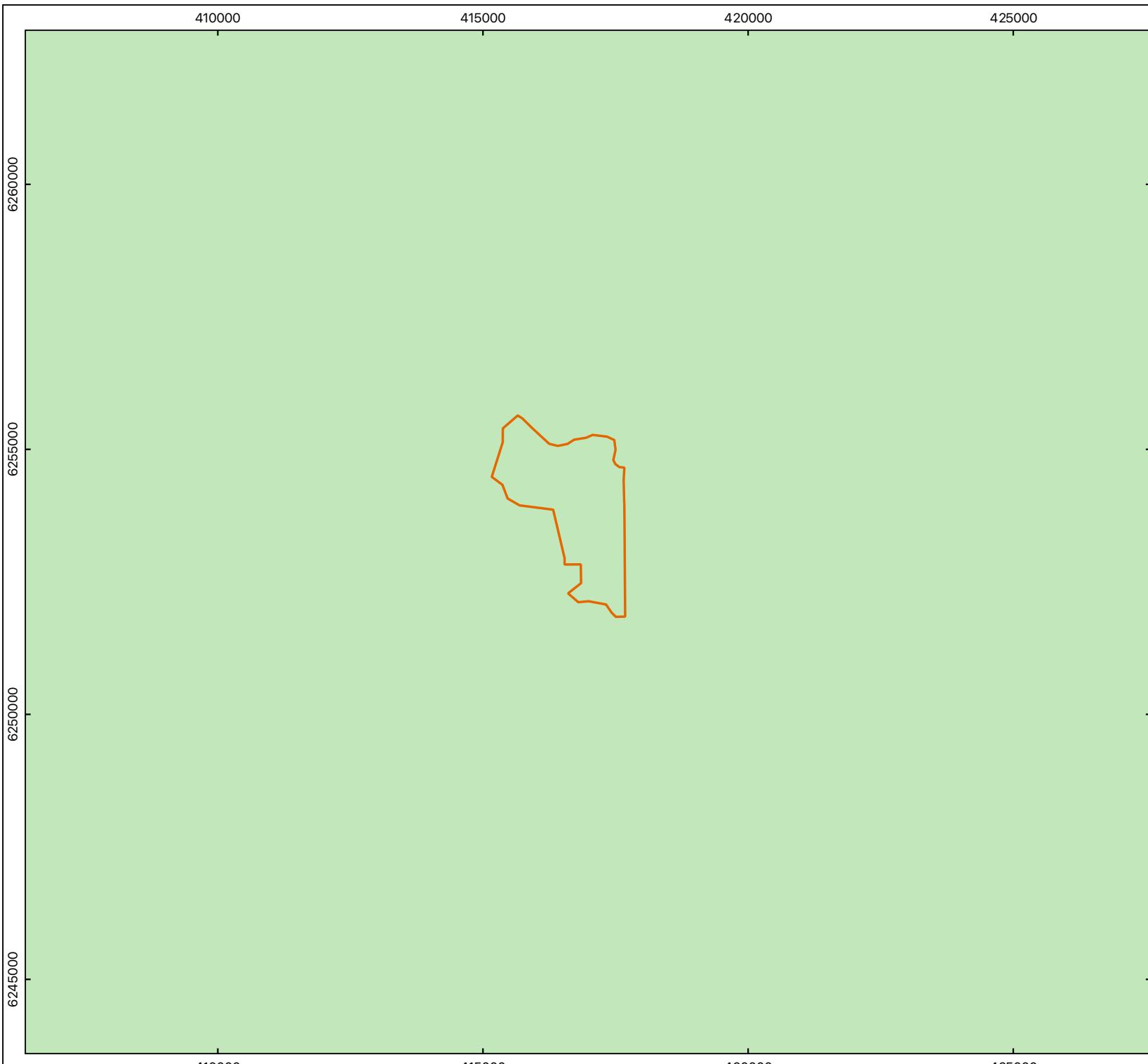
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## TALISON LITHIUM Additional Areas North

**Figure 4**  
**Mattiske and Havel (1998)**  
 vegetation complexes  
 represented within the study  
 area.

### Legend

- Additional Areas North Study Area
- Vegetation Complexes
  - Balingup
  - Catterick
  - Dwellingup
  - Goonaping
  - Grimwade
  - Hester

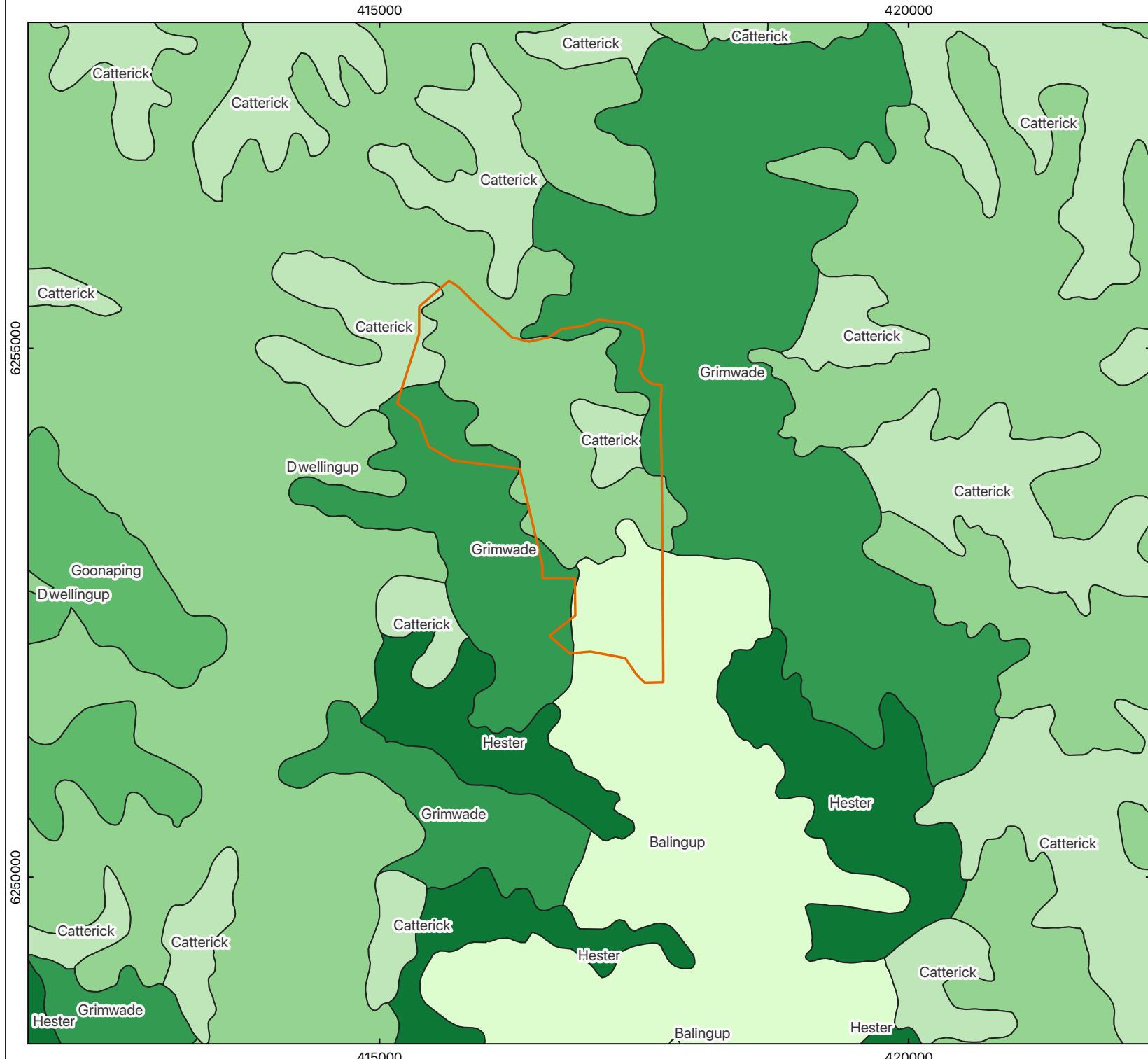


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## 2.0 METHODOLOGY

### 2.1 Legislation and Guidance Statements

The detailed flora and vegetation survey was carried out in a manner that is 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);
- Environmental Factor Guideline: Flora and Vegetation (EPA 2016b); and
- Statement of Environmental Principles, Factors and Objectives (EPA 2020).

### 2.2 Desktop Assessment

#### 2.2.1 Literature Review

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

- a summary of bioregional data (Hearn *et al.* 2002); and
- vegetation description and mapping by Beard (1981), and more recently by Heddle, Loneragan and Havel (1980), and by Mattiske and Havel (1998).

In addition, there was a review of all publicly available literature and internal reports commissioned and held by Talison. There were 18 flora and vegetation surveys previously completed between 1991 and 2023 in the vicinity of the study area. As part of the desktop review total flora lists for these surveys were reviewed to ensure nomenclature was accurate, consistent and current. 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. The search was extended beyond the study area to place flora values into a local and regional context. The following databases were searched:

- DBCA's Threatened and Priority flora database was searched to confirm the Naturemap results (40 km radial search) (DBCA 2023a);
- DBCA's TEC, PEC and Environmentally Sensitive Areas (ESAs) database was searched to identify significant communities (50 km radial search) (DBCA 2023b);
- Environmental Protection and Biodiversity Conservation (EPBC) Act Protected Matters Database (30 km radial search) (DCCEEW 2023);
- Atlas of Living Australia (ALA) spatial database search of the study area boundary (ALA 2023); and
- International Union for Conservation of Nature (IUCN) database (IUCN 2023).

### 2.2.3 Assessment of Conservation Significance

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

International Level:

- IUCN: The IUCN 'Red List' lists species at risk under nine categories (status codes) (Appendix 1).

Commonwealth Level:

- EPBC Act: The DCCEEW lists Threatened flora 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 1).

State Level:

- BC Act: At a State level, native flora species are protected under the BC Act – Wildlife Conservation Notice. 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 (Appendix 1); and
- DBCA Priority list: DBCA produces a list of Priority species and ecological communities that have not been assigned statutory protection under the WC 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 1). 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.

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

A list of conservation significant flora species occurring within a 50 km radius of the study area was compiled during the literature review and database searches. The likelihood of each taxon occurring within the study area was assessed using a set of rankings and criteria (as described in Table 2). The criteria are based on presence of suitable landform (inferred from aerial imagery with contours overlayed, and from knowledge of the adjacent areas) and distance to known records.

**Table 2 Ranking system used to assign the likelihood that a flora 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/habitat which is present within the study area, and there are previous records within a 10 km radius of the study area.
Possible to occur	The species has previously been recorded from a landform/habitat which is present within the study area, and there are previous records within a 30 km radius of the study area.
Unlikely to occur	The landform/habitat from which the species has previously been recorded is absent within the study area.

## 2.3 Survey Methodology

### 2.3.1 Timing and Personnel

The single season detailed flora and vegetation survey was completed by Principal Botanist Dr Jerome Bull between the 15<sup>th</sup> and 23<sup>rd</sup> of November 2023. The survey timing was recommended by the EPA technical guidance for flora and vegetation surveys (EPA 2016a).

### 2.3.2 Sampling of Study Sites

The field survey involved systematic sampling using quadrats (referred to as study sites). The study sites were 10 metres by 10 metres in size which is standard for the Jarrah Forest bioregion. A total of 40 quadrats were formally assessed (Figure 5). Study site locations were chosen based on consideration of the following requirements as per the technical guidelines for flora and vegetation surveys (EPA 2016a):

- A minimum of three quadrats in each vegetation type observed within the study area;
- Vegetation within the quadrat was representative of the typical vegetation occurring within a vegetation type (i.e. quadrats were not placed within an area of transition between vegetation types or in close proximity to tracks or other significant disturbance);
- Quadrats were positioned to provide adequate spatial coverage across the study area; and
- Quadrats were positioned to capture the typical range of variability in landforms, geology, soils, vegetation and other physical characteristics that were present across a vegetation type.

In addition to quadrats, relevé vegetation descriptions were made to increase the accuracy of vegetation mapping and capture additional information on the flora and vegetation of the study area. Relevé vegetation descriptions were utilised to target unusual areas or specific features of geology, soil, landforms or vegetation. They were also conducted in areas where conservation significant flora or previously unrecorded species were observed outside formal quadrats.

## TALISON LITHIUM Additional Areas North

**Figure 4**  
**Mattiske and Havel (1998)**  
 vegetation complexes  
 represented within the study  
 area.

### Legend

- Additional Areas North Study Area
- Quadrat Locations



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 Figure: 5

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

- Landform and habitat;
- Aspect;
- Soil colour and soil type;
- Rock type;
- Slope (angle);
- 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 (taken from north-west corner).

Vegetation condition for each of the study sites was determined using a recognised rating scale (based on Keighery 1994, see Appendix 2).

### 2.3.3 Targeted Surveys for Conservation Significant Species

Ground truthing conducted across the study area and between quadrats provided an opportunity to record opportunistic locations for conservation significant flora and to undertake closer examination of specific landforms where conservation significant flora would be expected to occur. Targeted searches for species of conservation significance were completed at habitats where it was anticipated that significant flora might occur based on habitat preferences (according to the database searches) and from previous knowledge of the species. These habitats were intensively covered during the field survey due to their increased likelihood to support a number of conservation significant species. Where species of conservation significance were identified during the survey a relevé was conducted to record details of the species and the associated habitat. Relevé information formed the basis for additional targeted searches within the wider study area based on soils, landforms, vegetation and microhabitats.

### 2.3.4 Weed Survey and Mapping

Introduced species were recorded from the quadrats formally 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 (40 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 245 taxa x 40 quadrat dataset using the program PATN (Belbin 2003). The flexible unweighted pair group method with arithmetic mean (UPGMA) classification strategy was used ( $\beta = -0.1$ ), together with the Bray-Curtis site similarity measure. The number of groups to be determined was set at nine. The primary output of the classification was in the form of a dendrogram (Appendix 3).

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.

### 2.3.6 Vegetation Type Mapping

The classification of vegetation types within the study area follow the height, life form and density classes of Muir (1997) (see Appendix 4). 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 3). Vegetation types recorded within the study area are grouped according to 'broad floristic formation' (refer to Table 3). A broad floristic formation describes the dominant growth form, cover and height as well as the dominant land cover genus for the dominant stratum (Department of Environment and Heritage (DEH) 2003). A vegetation type code was applied to each vegetation type. This code is comprised of the dominant landform on which the vegetation type occurs (i.e. HC = hill crest, HS = hill slope) and the characteristic plant taxa within the dominant vegetation strata.

The vegetation mapping utilised high-resolution aerial photography of the entire study area at a scale of 1:5,000, 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 40 study sites were overlaid on the aerial photography, and associated flora and vegetation data was used to provide vegetation type descriptions for individual polygons defined.

**Table 3 Vegetation type descriptions (based on the methods used under the National Vegetation Information System, DEH 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>Eucalyptus</i> Forest
Vegetation type	Up to three dominant species listed for each stratum, e.g. <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i>	One cover class code for each stratum, e.g. Forest, Scrub, Dwarf Scrub D	State soil colour and type, e.g. brown sandy loam	Include the landscape position, e.g. hill crest	Forest of <i>Eucalyptus</i> over Scrub of <i>Bossiaea linophylla</i> over Dwarf Scrub D of <i>Bossiaea ornata</i> on brown sandy loam on hill slopes

### 2.3.7 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.

### 2.3.8 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	There has been 18 previous flora and vegetation surveys completed within State forest adjacent to the study area, providing a comprehensive local database. A variety of databases comprising previous rare flora and communities was also searched to provide additional context.
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 was recorded given the high intensity sampling completed by the Principal Botanist, good seasonal conditions, and relatively homogenous nature of vegetation within the study area.
Survey timing, rainfall, season of survey	The field survey was completed during the recommended Spring period, although the November timing may have been too late for a number of the early flowering orchid species. It is noted that flowering occurs later at Greenbushes being located in the lower south-west region within a typically wetter and colder climate.

Constraint	Relevance
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 were restricted to hardwood logging, forestry tracks, weed encroachment along boundaries with cleared farmland, within plantation plots, and along disturbed sections of the Lyons River. Historical alluvial mining for tin along the Lyons River and subsequent rehabilitation was also observed.
Was the appropriate area fully surveyed (effort and extent)	One Principal Botanist formally assessed vegetation within 40 quadrats supplemented by numerous relevé sites. The nine day field assessment represented an extensive survey effort.
Access restrictions within the survey area	The study area was accessed on foot, noting that vegetation mapping was facilitated by high-resolution aerial photography. Access did not pose any restrictions to undertaking the field survey.
Competency/experience of the team carrying out the survey, including experience in the bioregion surveyed	The Principal Botanist working on the survey (Dr Jerome Bull) has over 25 years' experience working locally and has completed numerous surveys around Greenbushes annually since 2012.

## 3.0 RESULTS

### 3.1 Desktop Review

#### 3.1.1 Previous Flora Surveys within the study area

The results from previous flora and vegetation surveys completed within close proximity to the study area are presented in Table 5 and summarised below. The 18 surveys have recorded one Threatened Flora taxon and six Priority flora taxa within a 20 km radius of the study area:

- *Caladenia harringtoniae* (Threatened, Vulnerable);
- *Caladenia validinervia* (Priority 1);
- *Eucalyptus relicta* (Priority 2);
- *Melaleuca viminalis* (Priority 2)<sup>1</sup>;
- *Dillwynia* sp. Capel (P.A. Jurjevich 1771) (Priority 3);
- *Tetratheca parvifolia* (Priority 3); and
- *Acacia semitrullata* (Priority 4).

Two species have been identified as occurring outside of their known distribution (i.e. range extensions):

- \**Cyperus involucratus* (80 km south-east of nearest known population); and
- *Hybanthus epacroides* (180 km west of nearest known population).

Vegetation types recorded during the previous surveys are not aligned with any Commonwealth or State listed TECs or DBCA listed PECs, and are regarded as well represented and adequately reserved.

The previous surveys have typically recorded a high representation of introduced species within the total flora, reflecting heavy logging and surface disturbances linked to historical alluvial mining for tin within the state forest precinct around Greenbushes.

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<sup>1</sup> Likely introduced through revegetation around the Greenbushes Swimming Pool

**Table 5 Results from flora and vegetation surveys previously completed within, or in close proximity to, the study area.**

Survey	Consultant	Year	Field Survey Date	Flora Statistics	Significant Flora / Communities	Introduced (Weed) Taxa
A Flora and Vegetation Survey of Part of the Greenbushes Leases	Trudgen and Morgan	1991	13-14 April 1991	91 plant taxa 35 families 65 genera	None	9 introduced taxa including one Declared Plant listed under the BAM Act; * <i>Rubus anglocandicans</i> (Blackberry)
Flora and Vegetation Survey Greenbushes Mine Site: Vegetation surrounding south east corner of the TSF	Onshore Environmental Consultants	2006	13 <sup>th</sup> April 2006	135 plant taxa 37 families 97 genera	None	27 introduced taxa including one Declared Plant listed under the BAM Act; * <i>Rubus anglocandicans</i> (Blackberry)
Bridgetown RWSS Pipelines Millstream Dam to Greenbushes Link Biological Survey	AECOM Australia Pty Ltd	2010	Spring 2009	86 plant taxa 37 families 70 genera	None	29 introduced taxa including three Declared Plant listed under the BAM Act; * <i>Rubus ulmifolius</i> (Blackberry), * <i>Asparagus asparoides</i> (Bridal Creeper), * <i>Echium plantagineum</i> (Paterson's Curse)
Flora and Vegetation Survey Greenbushes Mining Leases	Onshore Environmental Consultants	2012	13-21 October 2011	368 plant taxa 73 families 208 genera	<i>Caladenia harringtoniae</i> (T); <i>Tetrapetra parvifolia</i> (P3)	86 introduced taxa including three Declared Plants listed under the BAM Act; * <i>Asparagus asparagooides</i> (Bridal Creeper), * <i>Galium aparine</i> (Goosegrass), * <i>Rubus ulmifolius</i> (Blackberry)
Greenbushes Mining Operations Detailed Flora and Vegetation Survey	Onshore Environmental Consultants	2018	27 February - 2 March and 26 September, 4, 16-18 October 2018	365 plant taxa 63 families 200 genera	<i>Acacia semitrullata</i> (P4), * <i>Cyperus involucratus</i> (range extension)	66 introduced taxa, including three Declared Plants listed under the BAM Act; * <i>Asparagus asparagooides</i> (Bridal Creeper), * <i>Rubus anglocandicans</i> (Blackberry) and * <i>Rumex acetosella</i> (Sorrell)

Survey	Consultant	Year	Field Survey Date	Flora Statistics	Significant Flora / Communities	Introduced (Weed) Taxa
Greenbushes Infrastructure Corridors Detailed Flora and Vegetation Survey	Onshore Environmental Consultants	2019a	30 July - 6 August and 26-27, 29-30 September, 3-4 and 18 October 2018	280 plant taxa 60 families 157 genera	<i>Acacia semitrullata</i> (P4), <i>Melaleuca virinalis</i> (P2), <i>Hybanthus epacroides</i> (range extension)	45 introduced taxa, including two Declared Plants listed under the BAM Act; * <i>Asparagus asparagoides</i> (Bridal Creeper) and * <i>Rubus anglocandicans</i> (Blackberry)
Targeted Flora Survey Greenbushes Lithium Mine	Onshore Environmental Consultants	2019b	19-20 September and 10 October 2019	Not assessed	<i>Acacia semitrullata</i> (P4)	Not assessed
Targeted Survey for <i>Eucalyptus relicta</i> Greenbushes Lithium Operations	Onshore Environmental Consultants	2020	20-24 July and 5-15 August 2020	Not assessed	<i>Eucalyptus relicta</i> (P2)	Not assessed
Detailed Flora and Vegetation Survey Greenbushes Mine Expansion Area 2 and Area 4	Onshore Environmental Consultants	2021	26-31 of October 2021	272 plant taxa, 60 families and 162 genera	None	49 introduced taxa
Greenbushes Proposed Village - Reconnaissance Flora and Vegetation Survey	Onshore Environmental Consultants	2022a	20 September 2022	Not recorded	None	One Declared Plant listed under the BAM Act; * <i>Rubus ulmifolius</i> (Blackberry)
Greenbushes Mine Access Road - Reconnaissance Flora and Vegetation Survey	Onshore Environmental Consultants	2022b	19-20 September 2022	Not recorded	None	Three plant taxa were listed as Declared Plants under the BAM Act; * <i>Rubus ulmifolius</i> (Blackberry), * <i>Asparagus asparagoides</i> (Bridal Creeper) and * <i>Zantedeschia aethiopica</i> (Arum Lilly)
Greenbushes Rehabilitation Materials Stockpiles - Reconnaissance Flora and Vegetation Survey	Onshore Environmental Consultants	2022c	21 September 2022	Not recorded	None	One Declared Plant listed under the BAM Act; * <i>Rubus ulmifolius</i> (Blackberry)

Survey	Consultant	Year	Field Survey Date	Flora Statistics	Significant Flora / Communities	Introduced (Weed) Taxa
Floyd's Waste Rock Landform Extension Detailed Flora and Vegetation Survey	Onshore Environmental Consultants	2022d	26-30 September 2022	132 plant taxa, 45 families and 102 genera	None	14 introduced taxa
New Water Storages Detailed Flora and Vegetation Survey	Onshore Environmental Consultants	2022e	1-5 October 2022	236 plant taxa, 55 families and 142 genera	None	33 introduced taxa including four Declared Plant listed under the BAM Act; <i>*Asparagus asparagoides</i> (Bridal Creeper), <i>*Galium aparine</i> (Goosegrass), <i>*Rubus anglocandicans</i> (Blackberry), <i>*Zantedeschia aethiopica</i> (Arum Lily)
Additional Areas at Water Storages Reconnaissance Flora and Vegetation Survey	Onshore Environmental Consultants	2023a	7-8, 15-16 December 2022	Not recorded	<i>Acacia semitrullata</i> (Priority 4)	Not recorded
Salt Water Gully Downstream Reconnaissance Flora and Vegetation Survey	Onshore Environmental Consultants	2023b	5-7 May 2023	99 plant taxa, 34 families and 76 genera	None	28 introduced taxa including four Declared Plant listed under the BAM Act; <i>*Asparagus asparagoides</i> (Bridal Creeper), <i>*Cirsium arvense</i> (Canada Thistle), <i>*Rubus anglocandicans</i> (Blackberry), <i>*Zantedeschia aethiopica</i> (Arum Lily)
Reconnaissance Flora and Vegetation Survey S8 Landform	Onshore Environmental Consultants	2023c	7-8 May 2023	98 plant taxa, 40 families and 78 genera	None	Six introduced taxa including one Declared Plant listed under the BAM Act; <i>*Rubus anglocandicans</i> (Blackberry)
Targeted Flora Survey New Zealand Gully	Onshore Environmental Consultants	2023d	5-9 September 2023	Not recorded	<i>Caladenia validinervia</i> (Priority 1), <i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771) (Priority 3)	Not recorded

### 3.1.2 Threatened Flora listed under the EPBC Act

A search of the EPBC Protected Matters database was undertaken for a 10 km radius around the study area (DCCEEW 2023). The search identified three records of Threatened flora potentially occurring within the buffer of the study area; *Caladenia hoffmanii* (Endangered), *Caladenia harringtoniae* and *Diuris micrantha* (Vulnerable) (Table 6).

### 3.1.3 Threatened Flora listed under the BC Act

A total of three Threatened Flora taxa were identified from the DBCA rare flora database search (DBCA 2023a) as occurring within a 40 km radius of the study area; *Caladenia harringtoniae*, *Caladenia christineae* and *Diuris drummondii* (Table 6).

### 3.1.4 Priority Flora recognised by the DBCA

A total of 24 Priority flora taxa were identified as potentially occurring within a 40 km radius of the study area (DBCA 2023a) (Table 6).

### 3.1.5 Likelihood of Occurrence

The combined database searches resulted in a list of 27 species of conservation significance with the potential to occur within the study area (Table 6). Seven of the 26 taxa were considered ‘likely’ to occur within the study area (as per criteria set out in Table 2) based on occurrence of habitat and proximity of previous records (Table 6). One taxon was considered ‘possible’ to occur within the study area, and the remaining 19 taxa were determined as ‘unlikely’ to occur within the study area.

### 3.1.6 TECs listed under State and Federal Legislation

A search of the EPBC Protected Matters database (DCCEEW 2023) confirmed there were no Commonwealth listed TECs previously recorded within a 30 km radius of the study area.

A search of the DBCA ecological community database (DBCA 2023b) confirmed there were no state listed TEC records within a 50 km radius of the study area.

### 3.1.7 PECs recognised by DBCA

A search of DBCA’s ecological community database (DBCA 2023b) confirmed that there were no PECs occurring within a 50 km radius of the study area.

### 3.1.8 Environmentally Sensitive Areas

There was one Environmentally Sensitive Area (ESA) identified approximately 6 km southwest of the study area, and 560 m northwest from the intersection of Huitson Road and Maranup Ford Road. The ESA incorporates the winter-wet dampland supporting the Threatened orchid species *Caladenia harringtoniae*. This landform was not represented within the study area. While this landform was evident within the study area, targeted searches did not record any evidence of *Caladenia harringtoniae*.

**Table 6 Significant flora potentially occurring within a 40 km radius of the study area (from database searches), and the likelihood of these taxa occurring within the study area.**

Taxon	Code	Habitat Preference	Likelihood
<i>Acacia parkerae</i>	3	Loam soils.	Unlikely
<i>Acacia semitrullata</i>	4	Grey sand.	Likely
<i>Acacia tayloriana</i>	4	Grey or yellow/orange sandy soils, lateritic gravel, clay loam.	Unlikely
<i>Andersonia barbata</i>	2	White sand. Swampy areas.	Unlikely
<i>Aponogeton hexatepalus</i>	4	Freshwater: ponds, rivers, claypans.	Unlikely
<i>Caladenia christineae</i>	T (V)	Winter- wet flats (on the margins as well as in standing water) in heath and tall scrub.	Unlikely
<i>Caladenia harringtoniae</i>	T (V)	Swamps and flats which are inundated for several months of the year; creek lines.	Likely
<i>Caladenia uliginosa</i> subsp. <i>patulens</i>	1	Clay loam and gravel. Well drained soils amongst dense shrubs.	Unlikely
<i>Caladenia validivervia</i>	1	Jarrah-Marri woodland	Likely
<i>Carex tereticaulis</i>	3	Black peaty sand.	Unlikely
<i>Chorizema carinatum</i>	3	Sand, sandy clay.	Unlikely
<i>Dampiera heteroptera</i>	3	Sandy soils. Swampy areas.	Possible
<i>Dillwynia</i> sp. Capel (P.A. Jurjevich 1771)	1	Littered grey loamy sand, rocky soils. Valleys, rangelands.	Unlikely
<i>Diuris drummondii</i>	T (V)	Low-lying depressions in peaty and sandy clay swamps.	Unlikely
<i>Eucalyptus relicta</i>	2	Grey clay-loam. Undulating upper slopes, along creeklines.	Likely
<i>Gastrolobium formosum</i>	3	Clay loam. Along river banks or in swamps.	Unlikely
<i>Grevillea bronwenae</i>	3	Grey sand over laterite, lateritic loam. Hillslopes.	Unlikely
<i>Grevillea ripicola</i>	4	Sandy clay, clay or gravelly loam. Swampy flats, granite outcrops, drainages.	Likely
<i>Melaleuca viminalis</i>	2	Drainage lines and flats.	Likely
<i>Pultenaea skinneri</i>	4	Sandy or clayey soils. Winter-wet depressions.	Unlikely
<i>Scaevola ballajupensis</i>	1	Brown sandy gravel, laterite, granite. Outcrops.	Unlikely
<i>Synaphea otostigma</i>	3	Clayey laterite, gravelly loam, sand.	Unlikely
<i>Netrostylis</i> sp. Blackwood River (A.R. Annels 3043)	3	Loam soil.	Unlikely
<i>Netrostylis</i> sp. Nannup (P.A. Jurjevich 1133)	1	Laterite.	Unlikely
<i>Tetratheca parvifolia</i>	3	Loam soils.	Likely
<i>Thysanotus formosus</i>	1	Clayey sand, sandy loam. In situations often inundated in winter.	Unlikely
<i>Thysanotus gageoides</i>	3	Sand, clay, granite, sandstone, laterite.	Unlikely

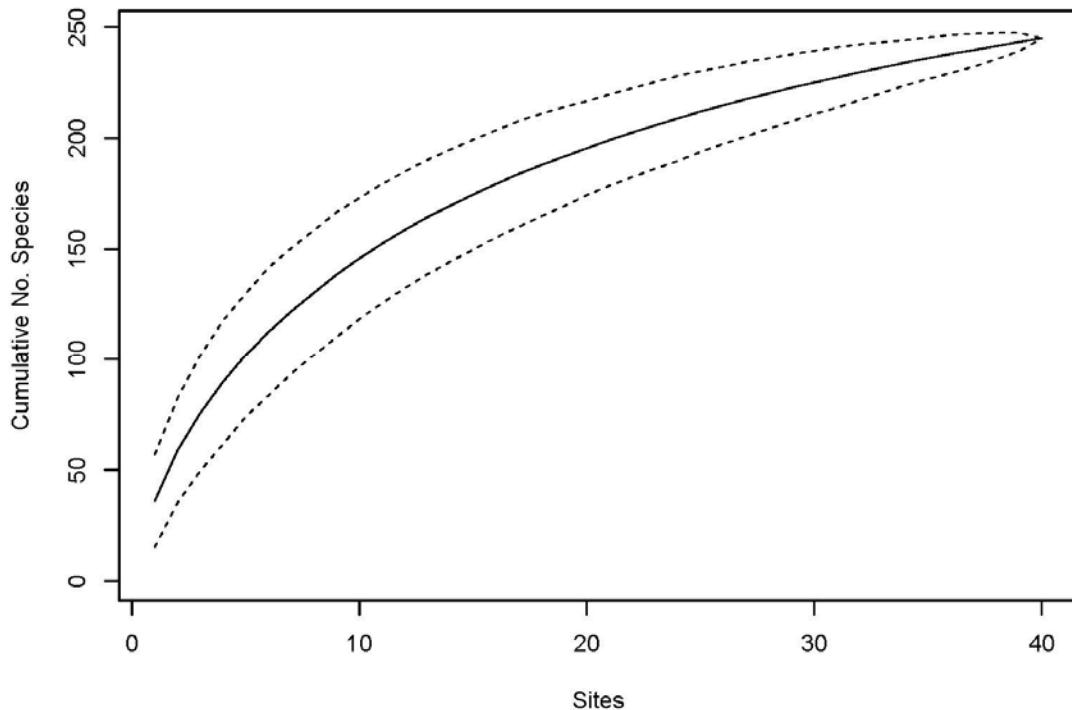
## 3.2 Flora Species

A total number of 330 plant taxa (including varieties and subspecies) from 74 families and 217 genera were recorded from the study area (Table 7, Appendix 5). Species representation was greatest among the Fabaceae, Poaceae, Asteraceae, Myrtaceae, Asparagaceae, Cyperaceae, Haemodoraceae, Proteaceae and Stylidiaceae families. The most speciose genera were *Acacia* (15 taxa), *Stylium* (eight taxa), *Juncus* and *Lomandra* (six taxa each), followed by *Conostylis*, *Gompholobium*, *Hakea* and *Melaleuca* (five taxa each).

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

Overview		No. Taxa
Families		74
Genera		217
Taxa (species, subspecies, varieties)		330
Native Taxa		256
Introduced Taxa		75
Threatened Flora		0
Priority Flora		0
Range Extensions		0
Species of Interest		1
Speciose Families		No. Taxa
Fabaceae		46
Poaceae		31
Asteraceae		27
Myrtaceae		16
Asparagaceae		16
Cyperaceae		13
Haemodoraceae		10
Proteaceae		10
Stylidiaceae		10
Goodeniaceae		8
Orchidaceae		7
Iridaceae		6
Juncaceae		6
Speciose Genera		No. Taxa
<i>Acacia</i>		15
<i>Stylium</i>		8
<i>Juncus</i>		8
<i>Lomandra</i>		6
<i>Conostylis</i>		5
<i>Gompholobium</i>		5
<i>Hakea</i>		5
<i>Melaleuca</i>		4
<i>Eucalyptus</i>		4
<i>Comesperma</i>		4
<i>Goodenia</i>		4
<i>Hibbertia</i>		4
<i>Styphelia</i>		4
<i>Thysanotus</i>		4

The species accumulation curve demonstrates a decline in the number of new species recorded approaching the total sample area of 4,000 m<sup>2</sup>, with a 10% increase in the final quadrats assessed yielding <3% new taxa (Figure 6). The locations of all quadrats are provided in Figure 5. A total of 245 species were recorded from the quadrats with an additional 85 species recorded from relevés and opportunistic observations outside the 40 formal quadrats. All vegetation types occurring within the study area were considered to be adequately sampled based on the heterogeneity and geographic distribution of these vegetation types.



**Figure 6 Species accumulation curve for the 40 quadrats formally assessed within the study area.**

### 3.3 Significant Flora

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

None of the plant taxa recorded from the study area were listed as Threatened Flora under the Commonwealth EPBC Act or the Western Australian BC Act.

#### 3.3.2 Significant Flora

None of the plant taxa recorded from the study area were listed by the DBCA as Priority Flora.

#### 3.3.3 Species of Interest

One potential new taxon was recorded from the study area: *Lepidosperma* sp. ONS6731. The collection is currently being taxonomically investigated by Onshore Environmental and once processed, will be submitted to the WA Herbarium for further evaluation.

*Lepidosperma* sp. ONS-6731 (Family: Cyperaceae, the sedges) is a robust, medium-sized, long-lived sedge growing in lax clumps of up to 1.3 m tall and 1.5 m wide (Plate 1). It has pliable, flat, glossy, bright green leaves up to 145 cm long and 4-5.5 mm wide with thin, smooth, tapered and sharp leaf margins. The flowering stems are distinctively biconvex (i.e. having a bulging central portion which contains the vascular tissue) which contrasts with the flattened leaves (Plate 2). The flower heads are dull brown, 8-17 cm long, relatively open and consist of 1-3 major panicle branches composed of clustered slender brown spikelets (i.e. the flowers). Fruits are whitish grey, ovoid-shaped nuts approximately 3-5 mm long. Flowering has been recorded in early May, while fruiting has been observed in November.

*Lepidosperma* sp. ONS-6731 was recorded as 14 plants from two spot locations along a medium sized drainage line in the far southern extent of the study area (Figure 7, Appendix 6). An additional 38 plants from six nearby locations (Figure 7, Appendix 6) were recorded along the same drainage line in May 2023 during a reconnaissance flora and vegetation survey of the Salt Water Gully Downstream project area (Onshore Environmental 2023b).

Within the study area *Lepidosperma* sp. ONS-6731 was recorded along seasonally wet levee banks and lower valley slopes associated with granitic outcropping. Opportunistic collections described the habitat as 'lower rocky slopes adjacent to drainage lines' and 'at the base of granitic outcrops adjacent to streams'. Soils were typically brown sandy loams, loams and clay loams.

The primary associated vegetation type for this taxon within the study area comprised 'Forest of *Eucalyptus rufa* subsp. *rufa* and \**Pinus radiata* over Open Low Woodland A of *Acacia saligna* and *Melaleuca rhaphiophylla* over Open Scrub of *Taxandria linearifolia* over Low Scrub A of \**Rubus anglocandicans* over Open Tall Grass of \**Holcus lanatus*, \**Phalaris aquatica* and \**Avena barbata* over Very Open Tall Sedges of *Juncus pallidus* on brown sandy clay loam and clay loam on medium drainage lines, with occasional granitic outcropping'.

Although *Lepidosperma* sp. ONS-6731 was recorded within this broad vegetation type, it was never found inhabiting wet channel beds, creek banks or wet flats in association with hygrophilous species such as *Melaleuca rhaphiophylla* and *Juncus pallidus*. Instead it preferred near creek environments where there was granitic outcropping, growing in association with a variety of near riverine and lower rocky slope species such as *Eucalyptus rufa* subsp. *rufa* (Flooded Gum), \**Rubus anglocandicans* (Blackberry), *Pteridium esculentum* (Bracken), *Hypocalymma angustifolium* (White Myrtle) and a variety of weedy grasses and herbs.

The population of *Lepidosperma* sp. ONS-6731 occurring within the study area was severely impacted by weed invasion, especially Blackberry which is a dominant weed occurring along degraded streams throughout the south-west. It was also absent from the heavily grazed (unfenced) sections of the drainage line, which suggests that *Lepidosperma* sp. ONS-6731 may be palatable to stock.



Plate 1     Habit of *Lepidosperma* sp. ONS-6731.



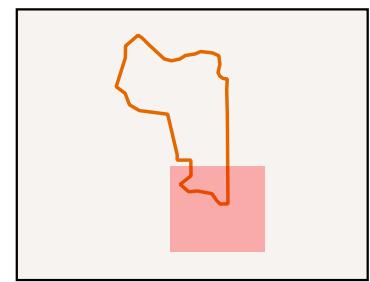
Plate 2     Flowering stem of *Lepidosperma* sp. ONS-6731.

## TALISON LITHIUM Additional Areas North

**Figure 7**  
**Significant flora recorded within  
the study area**

### Legend

- Study Area
- Lepidosperma sp. ONS-6731



0      250      500 m

1:10,000

Datum: GDA 94  
Projection: MGA Zone 50

Date: 22/02/2024  
Status: Final  
Figure: 7  
Sheet Size: A4

File Name Reference: TA\_AANF\_FigX\_sig\_flora.pdf  
Drawn by: JW  
Requested by: DB



## 3.4 Introduced Flora

A total of 75 introduced species (weeds) were recorded from the study area (Table 8). Three of these weed species are listed as Declared Pests under the BAM Act:

- *Gomphocarpus fruticosus* (Narrowleaf Cottonbush) - Declared Pest - s22(2) C3;
- *Asparagus asparagoides* (Bridal Creeper) - Declared Pest - s22(2) (Exempt); and
- *Rubus anglocandicans* (Blackberry) Declared Pest - s22(2) (Exempt).

*Gomphocarpus fruticosus* is listed under the C3 Management control category within the BAM Act is defined as “Organisms that should have some form of management applied that will alleviate the harmful impact of the organism, reduce the numbers or distribution of the organism or prevent or contain the spread of the organism.” (WAOL 2024). *Gomphocarpus fruticosus* is a small to medium sized, upright, long-lived shrub usually growing 0.5-2 m tall. Its green stems exude a milky sap and it has narrow, oppositely arranged leaves, small waxy white flowers with reflexed petals and inflated bristly fruits. Within the study area a total of 15 individual plants of *Gomphocarpus fruticosus* were recorded from one location in the south-west sector of the study area (50 H 416569E 6252931N).

*Asparagus asparagoides* was scattered throughout the study area recorded as small populations in a variety of habitats. *Rubus anglocandicans* was an aggressive and dominant weed occurring in damp riverine and near riverine habitats, most commonly recorded along drainage lines and valley slopes in the far south of the study area, and the drainage flats and historical rehabilitation in the north-west sector of the study area. Currently both species are exempt from legal management responsibility under the BAM Act.

**Table 8      Introduced flora recorded from the study area.**

Taxon	Taxon
* <i>Acacia dealbata</i>	* <i>Linum trigynum</i>
* <i>Acacia decurrens</i>	* <i>Lolium rigidum</i>
* <i>Aira cupaniana</i>	* <i>Lotus subbiflorus</i>
* <i>Allium triquetrum</i>	* <i>Lysimachia arvensis</i>
* <i>Aristida ramosa</i>	* <i>Lythrum hyssopifolia</i>
* <i>Asparagus asparagoides</i> Declared Pest s22(2) Exempt	* <i>Olea europaea</i>
* <i>Avena barbata</i>	* <i>Orobanche minor</i>
* <i>Brassica tournefortii</i>	* <i>Oxalis glabra</i>
* <i>Briza maxima</i>	* <i>Oxalis incarnata</i>
* <i>Briza minor</i>	* <i>Parentucellia latifolia</i>
* <i>Bromus diandrus</i>	* <i>Petrorhagia dubia</i>
* <i>Bromus hordeaceus</i>	* <i>Phalaris aquatica</i>
* <i>Carduus pycnocephalus</i>	* <i>Picris angustifolia</i>
* <i>Centaurea melitensis</i>	* <i>Pinus radiata</i>
* <i>Centaurium erythraea</i>	* <i>Plantago lanceolata</i>
* <i>Chamaecytisus palmensis</i>	* <i>Polypogon monspeliensis</i>
* <i>Chasmanthe floribunda</i>	* <i>Prunus</i> sp. indet.
* <i>Cortaderia selloana</i> subsp. <i>selloana</i>	* <i>Raphanus raphanistrum</i>
* <i>Cynodon dactylon</i>	* <i>Robinia pseudoacacia</i>
* <i>Cynosurus echinatus</i>	* <i>Romulea rosea</i>
* <i>Cyperus congestus</i>	* <i>Rorippa nasturtium-aquaticum</i>

Taxon	Taxon
* <i>Disa bracteata</i>	* <i>Rubus anglocandicans</i> Declared Pest s22(2) Exempt
* <i>Ehrharta longiflora</i>	* <i>Rumex acetosella</i>
* <i>Erigeron bonariensis</i>	* <i>Rumex conglomeratus</i>
* <i>Eucalyptus resinifera</i>	* <i>Silene gallica</i>
* <i>Fumaria capreolata</i>	* <i>Solanum nigrum</i>
* <i>Galium divaricatum</i>	* <i>Sonchus asper</i>
* <i>Gladiolus undulatus</i>	* <i>Sonchus oleraceus</i>
* <i>Gomphocarpus fruticosus</i> Declared Pest s22(2) C3	* <i>Stenotaphrum secundatum</i>
* <i>Holcus lanatus</i>	* <i>Sympyotrichum squamatum</i>
* <i>Hordeum leporinum</i>	* <i>Tolpis virgata</i>
* <i>Hordeum marinum</i>	* <i>Trifolium ligusticum</i>
* <i>Hypericum perforatum</i>	* <i>Trifolium subterraneum</i>
* <i>Hypochaeris glabra</i>	* <i>Ursinia anthemoides</i>
* <i>Isolepis prolifera</i>	* <i>Vinca major</i>
* <i>Juncus oxycarpus</i>	* <i>Vulpia bromoides</i>
* <i>Juncus sp. indet</i>	* <i>Yucca aloifolia</i>
* <i>Lavandula stoechas</i> subsp. <i>stoechas</i>	

### 3.5 Vegetation Condition

Vegetation condition across the majority of the study area comprising Jarrah-Marri forest on lateritic hills was rated as *very good* (323.9 ha or 63%) or *good* (40.3 ha or 8%), with disturbances including historical logging of native hardwood and presence of non-aggressive weeds (Figure 8, Table 9). There were also edge effects evidenced by elevated weed cover adjacent to cleared farmland (rated as *completely degraded*) in the central eastern sector of the study area (Figure 8).

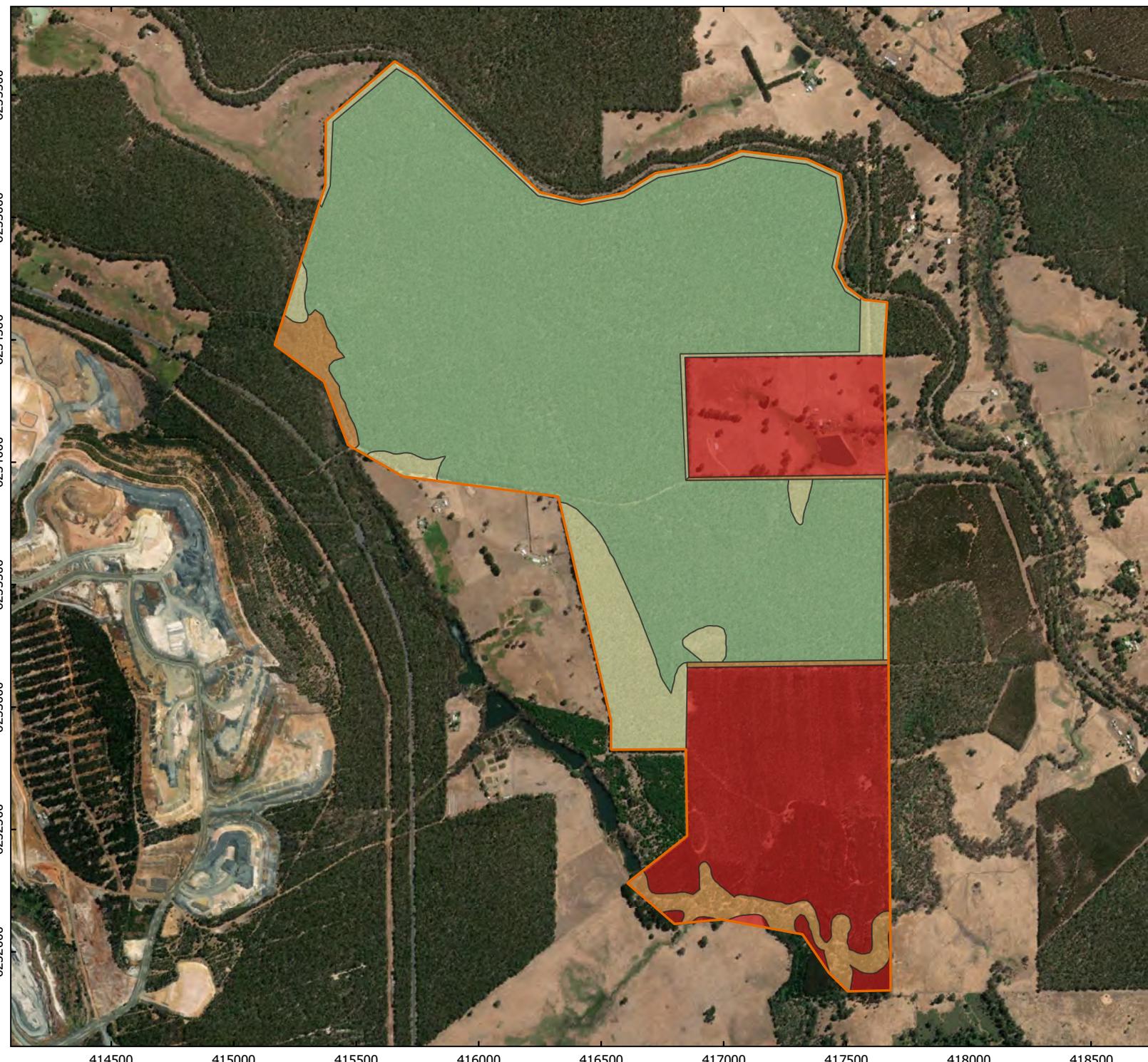
Vegetation structure and composition was obviously significantly altered in the far north-west sector of the study area due to historical soil disturbances from alluvial tin mining activities and subsequent rehabilitation, alteration to natural flows along the Lyons River including construction of dams, and construction of forestry tracks. Vegetation condition in this area varied from *good* to *completely degraded* (Figure 8). Two smaller patches of historical rehabilitation (<1 ha in area) were recorded in the far east and central southern sectors of the study area. These areas were characterised by light soil scarification and natural native forest regeneration with vegetation condition rated as *good*. The southern extent of the study area supported hardwood and softwood plantations with heavy weed loading. The adjacent drainage line and fringing granite outcrops in the far south of the study area were rated as *degraded* or *completely degraded* (Figure 8) due to the aggressive weed cover that included Blackberry, Pine trees, Iris and weedy grasses, combined with grazing impacts from domestic stock.

**Table 9** Vegetation condition within the study area.

Condition	Area (ha)	% of Total
Very Good	323.85	63.2
Good	40.34	7.9
Degraded	21.06	4.1
Completely Degraded	127.46	24.9
<b>Total</b>	<b>512.71</b>	<b>100.0</b>

## TALISON LITHIUM Additional Areas North

**Figure 8**  
Vegetation Condition recorded  
within the study area.



### Legend

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



0 250 500 m

1:22,000

Datum: GDA 94  
Projection: MGA Zone 50

Date: 22/02/2024

Status: Final

Figure: 8

Sheet Size: A4

File Name Reference: TA\_AANF\_Fig8\_veg\_cond.pdf  
Drawn by: JW  
Requested by: DB

## 3.6 Vegetation

A total of nine vegetation types classified as four broad floristic formations were described and mapped from the study area (Figure 9, Table 10). A species by site matrix and raw data for the 40 study sites is presented in Appendices 7 and 8 respectively. Vegetation over much of the study area broadly comprised Jarrah (*Eucalyptus marginata*) and Marri (*Corymbia calophylla*) forest on lateritic hill crests, hill slopes and foot slopes, with vegetation types differentiated by subtle differences in understorey composition including the occurrence of the low tree *Banksia grandis*, the tall shrub *Bossiaea linophylla* and tall shrubs *Xanthorrhoea preissii* and *Hakea prostrata*. Although still technically Jarrah-Marri forest, vegetation across the sandy hill slopes and foot slopes were dominated by Marri. Yarri (*Eucalyptus patens*) became a codominant tree species with Marri and Jarrah on a localised broad drainage floor and adjacent hill slopes in the eastern sector of the study area. This vegetation type covered a small area and hence was sampled by one quadrat.

Vegetation types occurring in medium sized drainage lines, wetlands and drainage areas were characterised by the presence of Flooded Gum (*Eucalyptus rudis* subsp. *rudis*), sometimes with a subcanopy of scattered lower trees including *Melaleuca rhiphiophylla* and *Acacia saligna*. The understorey composition and structure was variable. Vegetation along drainage lines in the far southern sector of the study area was characterised by a tall forest canopy of Flooded Gum and Pine trees over dense Blackberry and/or pasture weeds, with scattered native shrubs and sedges. Wetlands and drainage areas in the north-west sector of the study area supported typical wetland species in the understorey including *Melaleuca lateritia*, *Melaleuca viminea*, *Melaleuca rhiphiophylla* and sedges such as *Machaerina rubiginosa* and *Leptocarpus kraussii*. The drainage areas were heavily influenced by historical alluvial mining and subsequent rehabilitation mixes as evidenced by the presence of introduced and non-endemic species including *Eucalyptus resinifera* and *Acacia celastrifolia*.

In the far southern sector of the study area there were small areas of exposed granite on valley slopes. Associated vegetation comprised stunted Yarri and Marri woodland with a distinctive assemblage of understorey shrubs including *Xanthorrhoea preissii*, *Hakea lissocarpa*, *Hemigenia incana*, *Hypocalymma angustifolium*, *Stylidium affine*, *Conostylis aculeata* subsp. *preissii* and *Stypandra glauca*.

None of the nine vegetation types described and mapped from the study area were aligned with any TECs or PECs documented from the Jarrah Forest bioregion.

**Table 10 Vegetation types mapped within the study area.**

Vegetation Code	Broad Floristic Formation	Description	Condition	Area (ha) and of study area	Quadrats
HC EmCc Bo	<i>Eucalyptus</i> Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Low Woodland B of <i>Persoonia longifolia</i> , <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> (saplings) over Open Dwarf Scrub C of <i>Macrozamia riedlei</i> , <i>Pteridium esculentum</i> and <i>Xanthorrhoea gracilis</i> over Low Heath D of <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> and <i>Hibbertia commutata</i> (+/- <i>Opercularia hispidula</i> , <i>Hibbertia amplexicaulis</i> and <i>Hibbertia hypericoides</i> ) over Very Open Low Sedges of <i>Desmocladus fascicularis</i> and <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391) on brown sandy loams and loamy sands on lateritic hill crests and upper hill slopes	Very Good	216.01 ha (42.1%)	AN01, AN03, AN05, AN06, AN08, AN13, AN14, AN15, AN18, AN20, AN26, AN28, AN29, AN36, AN40
HC CcEm Bl Pe LcBo	<i>Corymbia</i> Forest	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over a Thicket of <i>Bossiaea linophylla</i> over Low Scrub A of <i>Pteridium esculentum</i> over Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> and <i>Hibbertia amplexicaulis</i> (+/- <i>Hibbertia hypericoides</i> ) over Very Open Climbers of <i>Clematis pubescens</i> , <i>Hardenbergia comptoniana</i> and <i>Cassytha racemosa</i> on brown and grey loamy sands on lateritic hill crests and upper hill slopes	Very Good	62.25 ha (12.1%)	AN16, AN17, AN27, AN30, AN37
HC EmCc Bg LcBo	<i>Eucalyptus</i> Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Low Woodland A of <i>Banksia grandis</i> (+/- <i>Persoonia longifolia</i> ) over Open Scrub of <i>Bossiaea linophylla</i> over Low Scrub A of <i>Pteridium esculentum</i> over Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> and <i>Hibbertia commutata</i> on brown loamy sands on lateritic hill crests and upper hill slopes	Very Good	78.74 ha (15.4%)	AN02, AN04, AN07, AN19, AN39
ME Er Mr TI	<i>Eucalyptus</i> Forest	Forest of <i>Eucalyptus rudis</i> subsp. <i>rudis</i> and * <i>Pinus radiata</i> over Open Low Woodland A of <i>Acacia saligna</i> and <i>Melaleuca rhamphophylla</i> over Open Scrub of <i>Taxandria linearifolia</i> over Low Scrub A of * <i>Rubus anglocandicans</i> over Open Tall Grass of * <i>Holcus lanatus</i> , * <i>Phalaris aquatica</i> and * <i>Avena barbata</i> over Very Open Tall Sedges of <i>Juncus pallidus</i> on brown clay loam and sandy clay loam on medium drainage lines	Degraded, Completely Degraded	9.38 ha (1.8%)	AN09, AN10, AN24
HS EmCc Xp HhHaBd	<i>Eucalyptus</i> Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Low Woodland B of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Scrub of <i>Hakea prostrata</i> over Low Scrub A of <i>Xanthorrhoea preissii</i> and <i>Acacia pulchella</i> over Dwarf Scrub D of <i>Hibbertia hypericoides</i> , <i>Hypocalymma angustifolium</i> and <i>Banksia dallanneyi</i> (+/- <i>Babingtonia camphorosmae</i> ) over Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391), <i>Desmocladus fascicularis</i> and <i>Lepidosperma leptostachyum</i> on brown sandy loams on footslopes	Very Good	7.09 ha (1.4%)	AN32, AN33, AN35

Vegetation Code	Broad Floristic Formation	Description	Condition	Area (ha) and of study area	Quadrats
WE ErCc TlAsCl Mr	<i>Eucalyptus</i> Woodland	Woodland of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> (+/- <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> ) over Open Low Woodland B of <i>Acacia saligna</i> and <i>Callistachys lanceolata</i> over Scrub of <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> over Open Low Scrub A of <i>Hakea varia</i> , <i>Acacia celastrifolia</i> and <i>Billardiera fusiformis</i> over Open Tall Sedges of <i>Machaerina rubiginosa</i> , <i>Leptocarpus kraussii</i> and * <i>Juncus holoschoenus</i> (+/- <i>Juncus pallidus</i> and <i>Chorizandra enodis</i> ) over Very Open Herbs of <i>Lobelia anceps</i> and <i>Ornduffia parnassifolia</i> on grey clayey sand and clay loam on wetlands	Good, Degraded	2.48 ha (0.5%)	AN11, AN34, AN38
FP ErEpCc GbGsAc	<i>Eucalyptus</i> Forest	Forest of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> , <i>Eucalyptus patens</i> and <i>Corymbia calophylla</i> (+/- * <i>Eucalyptus resinifera</i> ) over Scrub of <i>Gastrolobium bilobum</i> , <i>Gastrolobium spinosum</i> and <i>Acacia celastrifolia</i> over Low Scrub A of <i>Acacia pulchella</i> , <i>Acacia latericola</i> and <i>Billardiera fusiformis</i> over Dwarf Scrub C of <i>Hypocalymma angustifolium</i> over Very Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis) over Very Open Herbs of <i>Dampiera alata</i> and <i>Stylium spathulatum</i> on brown loamy sands on drainage areas / floodplains	Good, Degraded	4.77 ha (0.9%)	AN12, AN31
HS CcEp TdLc	<i>Corymbia</i> Forest	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over Dwarf Scrub D of <i>Tremandra diffusa</i> , <i>Leucopogon capitellatus</i> and <i>Lysiandra calycina</i> over Open Low Sedges of <i>Desmodiastrum fasciculatum</i> , <i>Hypolaena exsulca</i> and <i>Cyathochaeta aenacea</i> over Very Open Low Grass of * <i>Briza maxima</i> on brown sandy loams on hill slopes	Very Good	1.37 ha (0.3%)	AN21
GR CcEp XpHl Hi	<i>Corymbia</i> Woodland	Low Woodland A of <i>Corymbia calophylla</i> , <i>Eucalyptus patens</i> and * <i>Pinus radiata</i> over Open Low Scrub A of <i>Xanthorrhoea preissii</i> , <i>Acacia pulchella</i> and <i>Hakea lissocarpa</i> over Low Scrub B of <i>Hemigenia incana</i> and * <i>Rubus anglochindicus</i> over Dwarf Scrub D of <i>Hypocalymma angustifolium</i> , <i>Stylium affine</i> and <i>Hibbertia communis</i> over Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391), <i>Lepidosperma leptostachyum</i> and <i>Stypandra glauca</i> over Open Low Grass of * <i>Briza maxima</i> , * <i>Avena barbata</i> and <i>Austrostipa campylachne</i> on brown sandy and silty loams on granitic boulders/ rockpiles	Degraded, Good	3.18 ha (0.6%)	AN22, AN23, AN25
PL Pr		Closed Forest Plantation of * <i>Pinus radiata</i>	Completely Degraded	31.80 ha (6.2%)	
PL Eg		Closed Forest Plantation of * <i>Eucalyptus globulus</i>	Completely Degraded	55.21 ha (10.8%)	
Paddock		Paddock	Completely Degraded	40.45 ha (7.9%)	

## TALISON LITHIUM Additional Areas North

**Figure 9**  
**Vegetation Types recorded within  
the study area.**

### Legend

	Study Area
<b>Vegetation Associations</b>	
	FP ErEpCc GbGsAc
	GR CcEp XpHI Hi
	HC CcEm BI Pe LcBo
	HC EmCc Bg LcBo
	HC EmCc Bo
	HS CcEp TdLc
	HS EmCc Xp HhHaBd
	ME Er Mr TI
	Paddock
	PL Eg
	PL Pr
	WE ErCc TIAsCl Mr

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1:22,000

Datum: GDA 94  
Projection: MGA Zone 50

Date: 22/02/2024

Status: Final

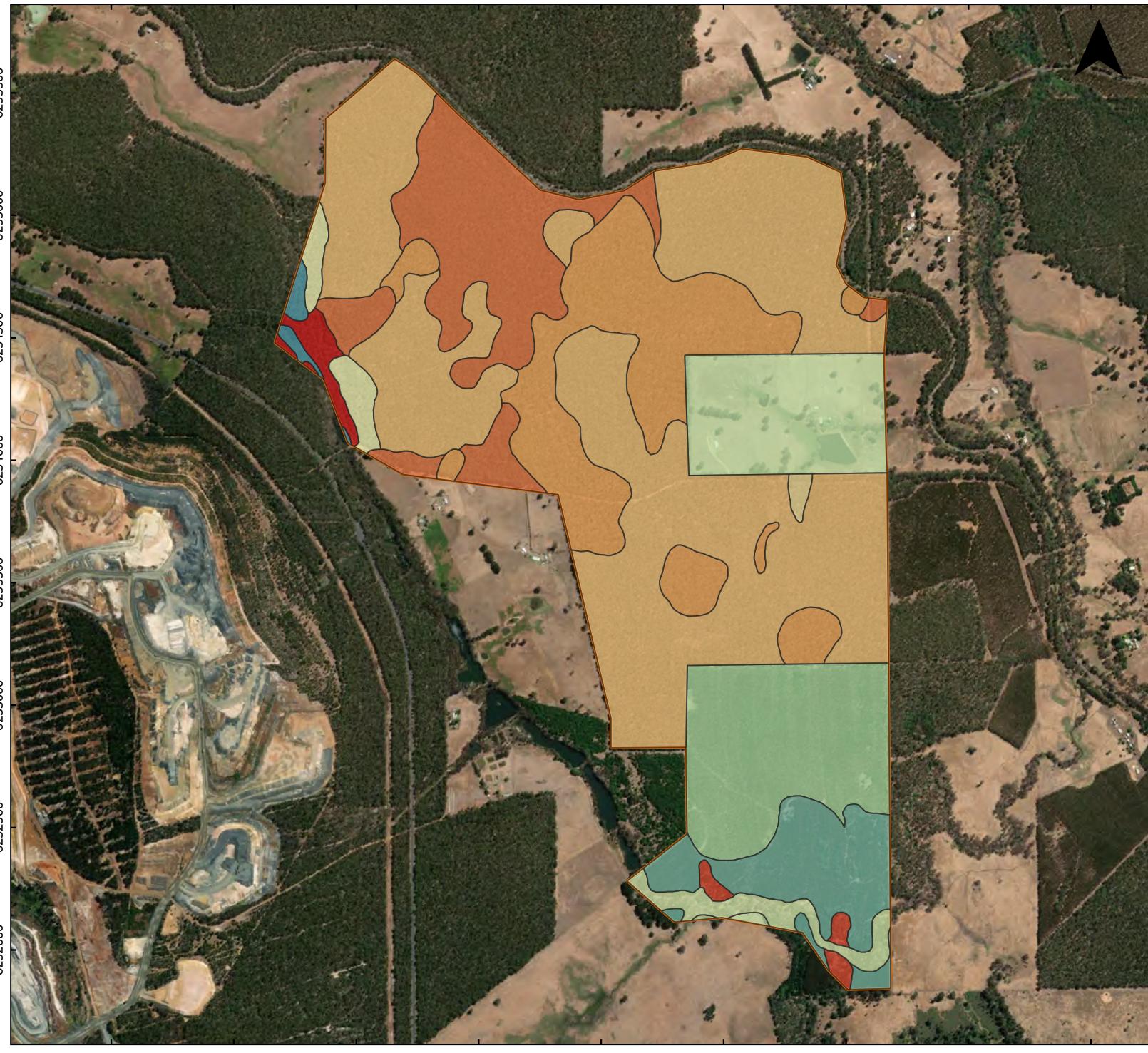
Figure: 9

Sheet Size: A4

File Name Reference: TA\_AANF\_Fig9\_veg\_map.pdf

Drawn by: JW

Requested by: DB



Code	HS EmCc Bo
Broad Floristic Formation	<i>Eucalyptus</i> Forest
Vegetation Type	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Low Woodland B of <i>Persoonia longifolia</i> , <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> (saplings) over Open Dwarf Scrub C of <i>Macrozamia riedlei</i> , <i>Pteridium esculentum</i> and <i>Xanthorrhoea gracilis</i> over Low Heath D of <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> and <i>Hibbertia communis</i> (+/- <i>Opercularia hispidula</i> , <i>Hibbertia amplexicaulis</i> , <i>Hibbertia hypericoides</i> ) over Very Open Low Sedges of <i>Desmocladus fascicularis</i> and <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391) on brown sandy loams and loamy sands on lateritic hill crests and upper hill slopes



Quadrats Sampled	AN01, AN03, AN05, AN06, AN08, AN13, AN14, AN15, AN18, AN20, AN26, AN28, AN29, AN36, AN40
Area (ha)	216.01 ha (42.1% of the study area)
Soils and Geology	Brown sandy loams and loamy sands
Land Form	Hillcrest/ upper hillslope
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Very Good
Disturbances	Historical logging, road/ access tracks, weeds, frequent fire, adjacent to farmland
Average Fire Age	Moderate (3 to 5 yr), Old (>6 years)

Code	HC CcEm Bl Pe LcBo
Broad Floristic Formation	<i>Corymbia</i> Forest
Vegetation Type	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over a Thicket of <i>Bossiaea linophylla</i> over Low Scrub A of <i>Pteridium esculentum</i> over Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> and <i>Hibbertia amplexicaulis</i> (+/- <i>Hibbertia hypericoides</i> ) over Very Open Climbers of <i>Clematis pubescens</i> , <i> Hardenbergia comptoniana</i> and <i>Cassytha racemosa</i> on brown and grey loamy sands on lateritic hill crests and upper hill slopes



Quadrats Sampled	AN16, AN17, AN27, AN30, AN37
Area (ha)	62.25 ha (12.1% of the study area)
Soils and Geology	Brown and grey loamy sand
Land Form	Hill slopes, lateritic hill crests and upper hill slopes
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Very Good
Disturbances	Historical logging (heavily logged), weeds
Average Fire Age	Old (>6 years)

Code	HC EmCc Bg LcBo
Broad Floristic Formation	<i>Eucalyptus</i> Forest
Vegetation Type	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Low Woodland A of <i>Banksia grandis</i> (+/- <i>Persoonia longifolia</i> ) over Open Scrub of <i>Bossiaea linophylla</i> over Low Scrub A of <i>Pteridium esculentum</i> over Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> and <i>Hibbertia commutata</i> on brown loamy sands on lateritic hill crests and upper hill slopes



Quadrats Sampled	AN02, AN04, AN07, AN19, AN39
Area (ha)	78.74 ha (15.4% of the study area)
Soils and Geology	Brown loamy sands
Land Form	Lateritic hill crests and upper hill slopes
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Very Good
Disturbances	Historical logging, road/ access track, weed invasion
Average Fire Age	Old (>6 years)

Code	ME Er Mr TI
Broad Floristic Formation	<i>Eucalyptus</i> Forest
Vegetation Type	Forest of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> and * <i>Pinus radiata</i> over Open Low Woodland A of <i>Acacia saligna</i> and <i>Melaleuca rhaphiophylla</i> over Open Scrub of <i>Taxandria linearifolia</i> over Low Scrub A of * <i>Rubus anglochindicus</i> over Open Tall Grass of * <i>Holcus lanatus</i> , * <i>Phalaris aquatica</i> and * <i>Avena barbata</i> over Very Open Tall Sedges of <i>Juncus pallidus</i> on brown clay loam and sandy clay loam on medium drainage lines



Quadrats Sampled	AN09, AN10, AN24
Area (ha)	9.38 ha (1.8% of the study area)
Soils and Geology	Brown clay loam and sandy clay loam
Land Form	Medium drainage line
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Degraded, Completely Degraded
Disturbances	Historical logging, road/ access tracks, weed invasion, pine plantation, farm adjacent, cattle grazing
Average Fire Age	Old (>6 years)

Code	HS EmCc Xp HhHaBd
Broad Floristic Formation	<i>Eucalyptus</i> Forest
Vegetation Type	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Low Woodland B of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Scrub of <i>Hakea prostrata</i> over Low Scrub A of <i>Xanthorrhoea preissii</i> and <i>Acacia pulchella</i> over Dwarf Scrub D of <i>Hibbertia hypericoides</i> , <i>Hypocalymma angustifolium</i> and <i>Banksia dallanneyi</i> (+/- <i>Babingtonia camphorosmae</i> ) over Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391), <i>Desmocladus fasciculatus</i> and <i>Lepidosperma leptostachyum</i> on brown sandy loam on footslopes



Quadrats Sampled	AN32, AN33, AN35
Area (ha)	7.09 ha (1.4% of the study area)
Soils and Geology	Brown sandy loams
Land Form	Foothslopes, hill slopes
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Very Good
Disturbances	Historical logging, weeds, mining exploration, historical soil disturbance, road/ access tracks
Average Fire Age	Old (>6 years)

Code	WE ErCc TIAsCl Mr
Broad Floristic Formation	<i>Eucalyptus</i> Woodland
Vegetation Type	Woodland of <i>Eucalyptus rudis</i> subsp. <i>rudis</i> (+/- <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> ) over Open Low Woodland B of <i>Acacia saligna</i> and <i>Callistachys lanceolata</i> over Scrub of <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> over Open Low Scrub A of <i>Hakea varia</i> , <i>Acacia celsastrifolia</i> and <i>Billardiera fusiformis</i> over Open Tall Sedges of <i>Machaerina rubiginosa</i> , <i>Leptocarpus kraussii</i> and * <i>Juncus holoschoenus</i> (+/- <i>Juncus pallidus</i> and <i>Chorizandra enodis</i> ) over Very Open Herbs of <i>Lobelia anceps</i> and <i>Ornduffia parnassifolia</i> on grey clayey sand and clay loam on wetlands



Quadrats Sampled	AN11, AN34, AN38
Area (ha)	2.48 ha (0.5% of the study area)
Soils and Geology	Grey clayey sand and clay loam
Land Form	Wetland
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Good, Degraded
Disturbances	Historical logging, road/ access track, weed invasion, old rehabilitation area, historical soil disturbance, mining exploration
Average Fire Age	Old (>6 years)

Code	FP ErEpCc GbGsAc
Broad Floristic Formation	<i>Eucalyptus</i> Forest
Vegetation Type	Forest of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> , <i>Eucalyptus patens</i> and <i>Corymbia calophylla</i> (+/- * <i>Eucalyptus resinifera</i> ) over Scrub of <i>Gastrolobium bilobum</i> , <i>Gastrolobium spinosum</i> and <i>Acacia celastrifolia</i> over Low Scrub A of <i>Acacia pulchella</i> , <i>Acacia latericola</i> and <i>Billardiera fusiformis</i> over Dwarf Scrub C of <i>Hypocalymma angustifolium</i> over Very Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis) over Very Open Herbs of <i>Dampiera alata</i> and <i>Stylium spathulatum</i> on brown loamy sands on drainage area / floodplain



Quadrats Sampled	AN12, AN31
Area (ha)	4.77 ha (0.9% of the study area)
Soils and Geology	Brown loamy sands
Land Form	Drainage area/ floodplain
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Good, Degraded
Disturbances	Historical logging, road/ access tracks, weed invasion, historical soil disturbance, mining exploration, rubbish
Average Fire Age	Old (>6 years)

Code	HS CcEp TdLc
Broad Floristic Formation	<i>Corymbia</i> Forest
Vegetation Type	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over Dwarf Scrub D of <i>Tremandra diffusa</i> , <i>Leucopogon capitellatus</i> and <i>Lysiandra calycina</i> over Open Low Sedges of <i>Desmocladus fasciculatus</i> , <i>Hypolaena exsulca</i> and <i>Cyathochaeta avenacea</i> over Very Open Low Grass of * <i>Briza maxima</i> on brown sandy loams on lower hill slopes



Quadrats Sampled	AN21
Area (ha)	1.37 ha (0.3% of the study area)
Soils and Geology	Brown sandy loams
Land Form	Lower hill slopes
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Very Good
Disturbances	Historical logging, road/ access tracks, weed invasion, historical soil disturbance, rubbish dumping, adjacent to farmland
Average Fire Age	Old (>6 years)

Code	GR CcEp XpHI Hi
Broad Floristic Formation	<i>Corymbia</i> Woodland
Vegetation Type	Low Woodland A of <i>Corymbia calophylla</i> , <i>Eucalyptus patens</i> and * <i>Pinus radiata</i> over Open Low Scrub A of <i>Xanthorrhoea preissii</i> , <i>Acacia pulchella</i> and <i>Hakea lissocarpa</i> over Low Scrub B of <i>Hemigenia incana</i> and * <i>Rubus anglocandicans</i> over Dwarf Scrub D of <i>Hypocalymma angustifolium</i> , <i>Stylium affine</i> and <i>Hibbertia commutata</i> over Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391), <i>Lepidosperma leptostachyum</i> and <i>Stypandra glauca</i> over Open Low Grass of * <i>Briza maxima</i> , * <i>Avena barbata</i> and <i>Austrostipa campylachne</i> on brown sandy and silty loams on granitic boulders/ rockpiles



Quadrats Sampled	AN22, AN23, AN25
Area (ha)	3.18 ha (0.6% of the study area)
Soils and Geology	Brown sandy and silty loams
Land Form	Granitic boulders/ rockpiles
Priority Ecological Community	No
Conservation Significant Flora	None
Vegetation Condition	Degraded, Good
Disturbances	Historical logging, road/ access tracks, weed invasion, pine plantation
Average Fire Age	Moderate (3 to 5 yr)

## 3.7 Representation and Reservation of Vegetation

### 3.7.1 Beard (1981) Vegetation Associations

Regional vegetation mapping completed by Beard (1981) was utilised to assess representation of vegetation within the study area. A single Beard vegetation association was represented within the study area; 3 Medium forest; jarrah-marri (Table 11, Figure 3). 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 at pre-European settlement (Department of Natural Resources and Environment 2002, EPA 2000). When considering representation at the State level, Beard vegetation association 3 currently has 67.76% of the pre-European extent remaining (Table 11, 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 1.3). When considering the representation of vegetation association 3 at the IBRA regional and sub-regional levels, 67.10% and 59.40% of the pre-European extent remains respectively (Table 11). The study area falls entirely within the Shire of Bridgetown-Greenbushes. At this local level 56.35% of the pre-European extent remains for vegetation association 3 (Table 11). Vegetation within the study area is therefore determined to be well represented at all levels (state-wide, bioregional [IBRA region and IBRA sub-region] and local government authority).

In terms of reservation, there is a benchmark for a minimum of 15% of each Beard (1981) vegetation association to be protected in Class I-IV reserves (Commonwealth of Australia 1997). The proportion of the current extent of vegetation association 3 occurring within Class I-IV reserves at a state-wide, bioregional and local government authority level ranges between 23.44% and 31.13%, noting that larger proportions (ranging from 78.50% to 86.77%) occur within DBCA managed lands (Table 11). Hence the reservation status is determined to be above the minimum benchmark confirming adequate reservation for vegetation association 3.

### 3.7.2 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. Interrogation of this database confirmed there were four vegetation complexes intersecting the study area (Table 11, Figure 4):

- BL (Balingup) - Tall open forest to open forest of *Corymbia calophylla-Eucalyptus marginata* with *Eucalyptus patens* on slopes and *Eucalyptus rudis* over some *Agonis flexuosa* on lower slopes in the humid zone;
- CC1 (Catterick) - Open forest of *Eucalyptus marginata-Corymbia calophylla* mixed with *Eucalyptus patens* on slopes, *Eucalyptus rudis* and *Banksia littoralis* on valley floors in the humid zone;
- D1 (Dwellingup) - Open forest of *Eucalyptus marginata-Corymbia calophylla* on lateritic uplands in mainly humid and subhumid zones; and
- GR (Grimwade) - Open forest of *Eucalyptus marginata-Corymbia calophylla* mixed with *Eucalyptus patens* on slopes, *Eucalyptus rudis* and *Banksia littoralis* on valley floors in the humid zone.

The CC1, D1 and GR complexes currently have between 50.3% and 86.8% of the pre-European extent remaining within the South West Forest Region, between 5.9% and 8.4% of the current extent within Class I-IV conservation reserves, and between 43.3% and 82.3% of the current extent within DBCA managed lands (Table 11). The BL complex has marginally less than 30% of the pre-European extent remaining within the South West Forest Region (29.4%) and the 1.5% of the current extent within Class I-IV conservation reserves and 15.3% of the current extent within DBCA managed lands. On this basis vegetation within the study area is generally determined to be well represented in terms of pre-European extent and occurrence within DBCA managed lands, but would benefit from increased formal reservation within Class I-IV reserves.

**Table 11 Pre-European extent of vegetation represented on the basis of identified datasets (Government of Western Australia 2018).**

Vegetation System / Association	Pre-European Extent (ha)	Current Extent (ha)	% Pre-European Extent Remaining	Current Extent in Class I-IV Reserves (ha)	% Current Extent in Class I-IV Reserves	Current Extent DBCA Managed Lands (ha)	% Current Extent DBCA Managed Lands
<b>State-wide</b>							
3 Medium forest; jarrah-marri	2,661,404.62	1,803,437.48	67.76	485,223.00	26.91	1,469,765.60	81.50
<b>Beard Vegetation System</b>							
3 Bridgetown	700,920.83	455,092.38	64.93	131,748.88	28.95	377,759.27	83.01
<b>IBRA Region</b>							
3 Jarrah Forest	2,390,591.54	1,604,101.56	67.10	385,183.08	24.01	1,299,263.74	81.00
<b>IBRA Sub-Region</b>							
3 Southern Jarrah Forest	1,482,491.85	880,655.65	59.40	274,167.05	31.13	691,319.44	78.50
<b>Local Government Authority</b>							
Shire of Bridgetown-Greenbushes	121,152.70	68,275.41	56.35	16,006.81	23.44	59,243.12	86.77
<b>Mattiske &amp; Havel Complexes</b>							
Balingup, BL	59,446.57	17,466.47	29.38	883.65	1.49	9,120.37	15.34
Catterick, CC1	27,385.55	16,733.59	61.10	1,875.21	6.85	15,210.18	55.54
Dwellingup, D1	208,490.90	181,038.81	86.83	17,407.23	8.35	171,561.01	82.29
Grimwade GR	22,046.59	11,083.33	50.27	1,307.17	5.93	9,556.20	43.35

## 3.8 Conservation Significance of Vegetation

### 3.8.1 National Significance

None of the nine vegetation types recorded from the study area supported Threatened Flora listed under the EPBC Act, or were aligned with any Commonwealth listed TECs. Therefore, vegetation within the study area was not considered to be of national significance.

### 3.8.2 State Significance

None of the nine vegetation types recorded from the study area supported Threatened Flora listed under the Western Australian BC Act or were aligned with any state listed TEC or DBCA listed PEC. As well, vegetation types did not support Priority flora taxa listed by the DBCA. Therefore, vegetation within the study area was not considered to be of state significance.

### 3.8.3 Local Significance

Vegetation within the study area supports one species of interest: *Lepidosperma* sp. ONS-6731. This is a sedge species restricted to drainage line vegetation associated with granite outcropping in the far southern extent of the study area, described as:

- ME Er Mr TI - Forest of *Eucalyptus rufa* subsp. *rufa* and \**Pinus radiata* over Open Low Woodland A of *Acacia saligna* and *Melaleuca rhaphiophylla* over Open Scrub of *Taxandria linearifolia* over Low Scrub A of \**Rubus anglocandicans* over Open Tall Grass of \**Holcus lanatus*, \**Phalaris aquatica* and \**Avena barbata* over Very Open Tall Sedges of *Juncus pallidus* on brown clay loam and sandy clay loam on medium drainage lines.

*Lepidosperma* sp. ONS-6731 does not match any currently described *Lepidosperma* in southwestern Australia and may be of conservation significance. Hence, the associated vegetation type is considered to be of local conservation significance. It is noted that vegetation supporting this taxon was rated as degraded to completely degraded reducing the potential conservation significance of the unit.

## 4.0 SUMMARY

A single season detailed flora and vegetation survey of native vegetation situated east of the MDE and predominantly within the Greenbushes State Forest occurred under good seasonal conditions in November 2023.

A total number of 330 plant taxa from 74 families and 217 genera were recorded from the study area. None of the plant taxa were listed as Threatened Flora under the Commonwealth EPBC Act or the Western Australian BC Act. Additionally, no species were listed as Priority flora by the DBCA or were considered to represent significant range extensions. One plant taxon was considered to be a species of interest and is currently being evaluated to confirm its taxonomic status: *Lepidosperma* sp. ONS6731. A total of 17 plants were recorded from localised areas of granitic outcropping above the levee bank of a medium drainage line in the southern extent of the study area. Associated vegetation condition was rated as degraded or completely degraded.

There was 75 introduced plant species (weeds) recorded from the study area, reflecting heavy disturbance along the Lyons River. Three species were listed as Declared Pests under the BAM Act: *Gomphocarpus fruticosus* (Narrowleaf Cottonbush), *Rubus anglocandicans* (Blackberry) and *Asparagus asparagoides* (Bridal Creeper).

A total of nine vegetation types were described and mapped from the study area. None of the vegetation types were aligned with any Commonwealth or State listed TECs or DBCA listed PECs. Vegetation condition was rated as *very good* or *good* across the majority of the study area, with localised areas rated as *degraded* or *completely degraded*. Vegetation structure was obviously altered in the north-west sector by historical mining, rehabilitation, road access and damming of the Lyons River. Heavy weed infestation, especially by Blackberry, was evident throughout the riparian vegetation types and was most prominent along drainage lines in the far south and wetlands in the north-west of the study area. Slightly reduced vegetation condition was evident wherever native vegetation adjoined cleared farmland, railway sidings and gazetted roads throughout the study area.

## 5.0 STUDY TEAM

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

Onshore Environmental Consultants P/L  
ABN 41 095 837 120  
PO Box 227  
YALLINGUP WA 6282  
M 0427 339 842  
Email info@onshoreenvironmental.com.au

### **Project Staff**

Dr Darren Brearley	PhD	Project Manager
Dr Jerome Bull	PhD	Principal Botanist (Flora licence number: FB62000102-2)
Mrs Kerry Keenan		Data Analyst
Ms Jessica Waters		Principal Ecologist / GIS Specialist

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# APPENDIX 1

## Conservation Codes

## Conservation codes for Western Australian Flora and Fauna



Department of **Biodiversity,  
Conservation and Attractions**

GOVERNMENT OF  
WESTERN AUSTRALIA

# CONSERVATION CODES

## For Western Australian Flora and Fauna

Threatened, Extinct and Specially Protected fauna or flora<sup>1</sup> are species<sup>2</sup> which have been adequately searched for and are deemed to be, in the wild, threatened, extinct or in need of special protection, and have been gazetted as such.

**The Wildlife Conservation (Specially Protected Fauna) Notice 2018 and the Wildlife Conservation (Rare Flora) Notice 2018 have been transitioned under regulations 170, 171 and 172 of the Biodiversity Conservation Regulations 2018 to be the lists of Threatened, Extinct and Specially Protected species under Part 2 of the Biodiversity Conservation Act 2016.**

Categories of Threatened, Extinct and Specially Protected fauna and flora are:

**T      Threatened species**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

**Threatened fauna** is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

**Threatened flora** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

**CR      Critically endangered species**

Threatened species considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

**EN      Endangered species**

Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

**VU      Vulnerable species**

Threatened species considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

*Conservation codes for Western Australian flora and fauna*

**Extinct species**

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

**EX Extinct species**

Species where "there is no reasonable doubt that the last member of the species has died", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

**EW Extinct in the wild species**

Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

**Specially protected species**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

**MI Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes 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 fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**CD Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**OS Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

*Conservation codes for Western Australian flora and fauna*

**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 fauna or flora.

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 1: Poorly-known species**

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

**2      Priority 2: Poorly-known species**

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

**3      Priority 3: Poorly-known species**

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

**4      Priority 4: Rare, Near Threatened and other species in need of monitoring**

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

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.

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

<sup>1</sup>The definition of flora includes algae, fungi and lichens

<sup>2</sup>Species includes all taxa (plural of taxon - a classificatory group of any taxonomic rank, e.g. a family, genus, species or any infraspecific category i.e. subspecies or variety, or a distinct population).

**Conservation categories for flora described under the EPBC Act**

Category	Description
<b>Extinct (Ex)</b>	A species is extinct if there is no reasonable doubt that the last member of the species has died.
<b>Extinct in the Wild (EW)</b>	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.
<b>Critically Endangered (CE)</b>	The species is facing an extremely high risk of extinction in the wild and in the immediate future.
<b>Endangered (EN)</b>	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.
<b>Vulnerable (VU)</b>	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.
<b>Conservation Dependent (CD)</b>	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.

**Conservation categories for species described under the IUCN**

Category	Description
<b>Extinct (Ex)</b>	A taxon is Extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed Extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
<b>Extinct in the Wild (EW)</b>	A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range. A taxon is presumed Extinct in the Wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.
<b>Critically Endangered (CE)</b>	A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild.
<b>Endangered (EN)</b>	A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a very high risk of extinction in the wild.
<b>Vulnerable (VU)</b>	A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A to E for Vulnerable, and it is therefore considered to be facing a high risk of extinction in the wild.
<b>Near Threatened (NT)</b>	A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future.
<b>Data Deficient (DD)</b>	A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that threatened classification is appropriate. It is important to make positive use of whatever data are available. In many cases great care should be exercised in choosing between DD and a threatened status. If the range of a taxon is suspected to be relatively circumscribed, and a considerable period of time has elapsed since the last record of the taxon, threatened status may well be justified.

# APPENDIX 2

Vegetation condition scale  
(as developed by Keighery 1994)

Condition	Code	Description
Pristine	1	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.
Excellent	2	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
Very Good	3	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	4	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Degraded	5	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.
Completely Degraded	6	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.

# APPENDIX 3

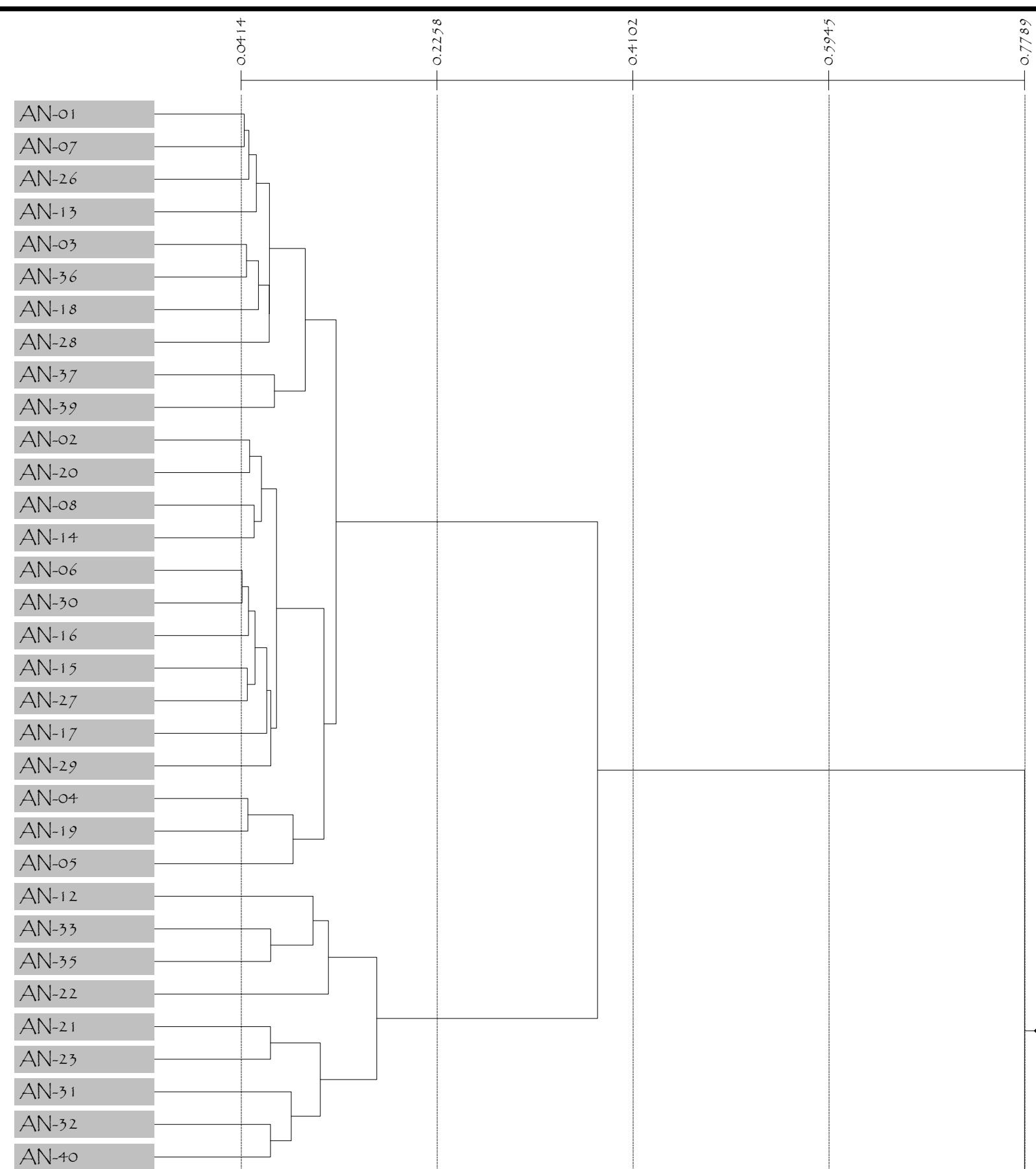
## Column Fusion Dendrogram

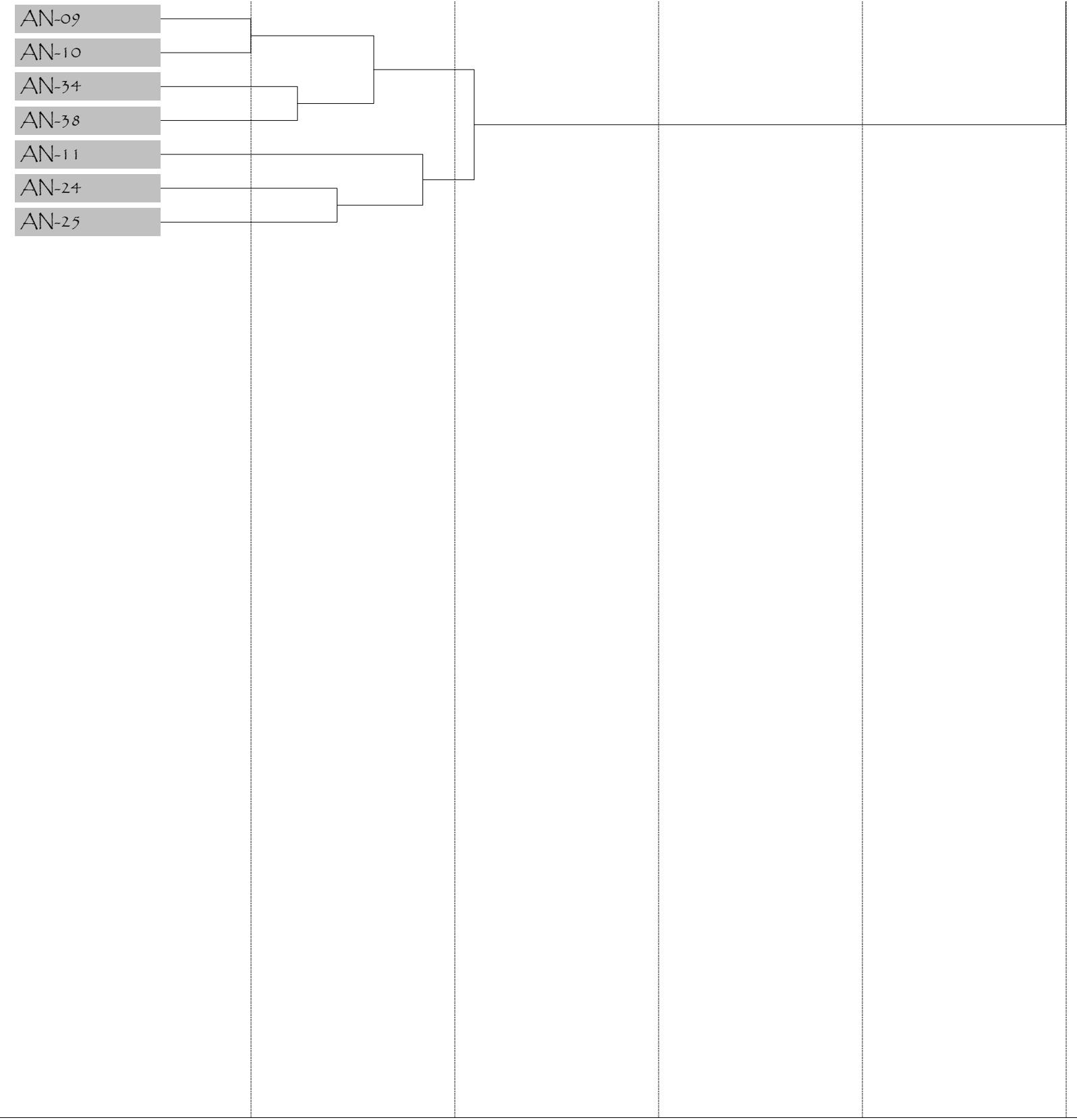
Table 1

Fusion Type: Flexible UPGMA Beta = -0.10

On Association: Two-Step (Columns) Created on: 09:41:53, February 26, 2024

## Column Fusion Dendrogram





# APPENDIX 4

Vegetation classifications for the study area based on Muir (1997).

LIFE FORM / HEIGHT		Canopy Cover			
CLASS		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 5

## Total flora list from the study area

\* Denotes introduced flora species

Family	Genus	Species	Rank	Infra Name
Alliaceae	*Allium	triquetrum		
Amaranthaceae	Alternanthera	denticulata		
Amaranthaceae	Ptilotus	drummondii		
Amaranthaceae	Ptilotus	manglesii		
Anarthriaceae	Lyginia	imberbis		
Apiaceae	Apium	prostratum	subsp.	prostratum var. prostratum
Apiaceae	Daucus	glochidiatus		
Apiaceae	Pentapeltis	silvatica		
Apiaceae	Xanthosia	atkinsoniana		
Apiaceae	Xanthosia	candida		
Apiaceae	Xanthosia	huegelii		
Apocynaceae	*Gomphocarpus	fruticosus		
Apocynaceae	*Vinca	major		
Araliaceae	Hydrocotyle	callicarpa		
Araliaceae	Trachymene	pilosa		
Asparagaceae	*Asparagus	asparagooides		
Asparagaceae	*Yucca	aloifolia		
Asparagaceae	Dichopogon	preissii		
Asparagaceae	Dichopogon		sp.	indet
Asparagaceae	Laxmannia	squarrosa		
Asparagaceae	Lomandra	caespitosa		
Asparagaceae	Lomandra	cf. drummondii		
Asparagaceae	Lomandra	hermaphrodita		
Asparagaceae	Lomandra	integra		
Asparagaceae	Lomandra	pauciflora		
Asparagaceae	Lomandra	sericea		
Asparagaceae	Sowerbaea	laxiflora		
Asparagaceae	Thysanotus	multiflorus		
Asparagaceae	Thysanotus	patersonii		
Asparagaceae	Thysanotus	sparteus		
Asparagaceae	Thysanotus	tenellus		
Asteraceae	*Carduus	pycnocephalus		
Asteraceae	*Centaurea	melitensis		
Asteraceae	*Erigeron	bonariensis		
Asteraceae	*Hypochaeris	glabra		
Asteraceae	*Picris	angustifolia		
Asteraceae	*Sonchus	asper		
Asteraceae	*Sonchus	oleraceus		
Asteraceae	*Symphyotrichum	squamatum		
Asteraceae	*Tolpis	virgata		
Asteraceae	*Ursinia	anthemoides		
Asteraceae	Brachyscome	iberidifolia		
Asteraceae	Craspedia	variabilis		
Asteraceae	Euchiton	collinus		
Asteraceae	Hyalosperma	cotula		
Asteraceae	Lagenophora	huegelii		
Asteraceae	Millotia	tenuifolia		
Asteraceae	Pithocarpa	ramosa		
Asteraceae	Podolepis	gracilis		
Asteraceae	Podotheca	angustifolia		

Family	Genus	Species	Rank	Infra Name
Asteraceae	Pterochaeta	paniculata		
Asteraceae	Rhodanthe	citrina		
Asteraceae	Senecio	glomeratus		
Asteraceae	Senecio	multicaulis		
Asteraceae	Senecio	quadridentatus		
Asteraceae	Siloxerus	filifolius		
Asteraceae	Trichoclone	spathulata		
Asteraceae	Waitzia	suaveolens	var.	suaveolens
Brassicaceae	*Brassica	tournefortii		
Brassicaceae	*Raphanus	raphanistrum		
Brassicaceae	*Rorippa	nasturtium-aquaticum		
Campanulaceae	Isotoma	hypocrateriformis		
Campanulaceae	Lobelia	anceps		
Campanulaceae	Wahlenbergia	capillaris		
Caryophyllaceae	*Petrerhagia	dubia		
Caryophyllaceae	*Silene	gallica		
Casuarinaceae	Allocasuarina	fraseriana		
Casuarinaceae	Allocasuarina	humilis		
Celastraceae	Stackhousia	huegelii		
Celastraceae	Tripterooccus	brunonis		
Centrolepidaceae	Centrolepis	pilosa		
Colchicaceae	Burchardia	congesta		
Convolvulaceae	Dichondra	repens		
Cyperaceae	*Cyperus	congestus		
Cyperaceae	*Isolepis	prolifera		
Cyperaceae	Chorizandra	enodis		
Cyperaceae	Cyathochaeta	avenacea		
Cyperaceae	Ficinia	nodosa		
Cyperaceae	Gahnia	aristata		
Cyperaceae	Isolepis	cernua	var.	setifolia
Cyperaceae	Lepidosperma	effusum		
Cyperaceae	Lepidosperma	leptostachyum		
Cyperaceae	Lepidosperma	sp. nov.		
Cyperaceae	Machaerina	rubiginosa		
Cyperaceae	Morelotia	octandra		
Cyperaceae	Netrostylis		sp.	Jarra Forest (R. Davis 7391)
Dennstaedtiaceae	Pteridium	esculentum		
Dilleniaceae	Hibbertia	amplexicaulis		
Dilleniaceae	Hibbertia	commutata		
Dilleniaceae	Hibbertia	diamesogenos		
Dilleniaceae	Hibbertia	hypericoides		
Droseraceae	Drosera	pallida		
Elaeocarpaceae	Tetrapetra	affinis		
Elaeocarpaceae	Tetrapetra	hirsuta	subsp.	viminea
Elaeocarpaceae	Tetrapetra	hispidissima		
Elaeocarpaceae	Tremandra	diffusa		
Ericaceae	Leucopogon	capitellatus		
Ericaceae	Leucopogon	verticillatus		
Ericaceae	Styphelia	discolor		
Ericaceae	Styphelia	erectifolia		

Family	Genus	Species	Rank	Infra Name
Ericaceae	Styphelia	pallida		
Ericaceae	Styphelia	propinqua		
Euphorbiaceae	Monotaxis	occidentalis		
Fabaceae	*Acacia	dealbata		
Fabaceae	*Acacia	decurrens		
Fabaceae	*Chamaecytisus	palmensis		
Fabaceae	*Lotus	subbiflorus		
Fabaceae	*Robinia	pseudoacacia		
Fabaceae	*Trifolium	ligusticum		
Fabaceae	*Trifolium	subterraneum		
Fabaceae	Acacia	browniana	var.	endlicheri
Fabaceae	Acacia	celastrifolia		
Fabaceae	Acacia	dentifera		
Fabaceae	Acacia	drummondii	subsp.	elegans
Fabaceae	Acacia	extensa		
Fabaceae	Acacia	insolita		
Fabaceae	Acacia	latericola		
Fabaceae	Acacia	nervosa		
Fabaceae	Acacia	pulchella		
Fabaceae	Acacia	saligna		
Fabaceae	Acacia	stenoptera		
Fabaceae	Acacia	trigonophylla		
Fabaceae	Acacia	urophylla		
Fabaceae	Bossiaea	aquifolium		
Fabaceae	Bossiaea	linophylla		
Fabaceae	Bossiaea	ornata		
Fabaceae	Callistachys	lanceolata		
Fabaceae	Chorizema	cordatum		
Fabaceae	Daviesia	decurrens	subsp.	decurrens
Fabaceae	Daviesia	physodes		
Fabaceae	Daviesia	preissii		
Fabaceae	Gastrolobium	bilobum		
Fabaceae	Gastrolobium	spinosum		
Fabaceae	Gompholobium	confertum		
Fabaceae	Gompholobium	marginatum		
Fabaceae	Gompholobium	polymorphum		
Fabaceae	Gompholobium	preissii		
Fabaceae	Gompholobium	tomentosum		
Fabaceae	Hardenbergia	comptoniana		
Fabaceae	Hovea	chorizemifolia		
Fabaceae	Hovea	trisperma		
Fabaceae	Isotropis	cuneifolia		
Fabaceae	Jacksonia	horrida		
Fabaceae	Kennedia	carinata		
Fabaceae	Kennedia	coccinea		
Fabaceae	Kennedia	prostrata		
Fabaceae	Labichea	punctata		
Fabaceae	Mirbelia	dilatata		
Fabaceae	Sphaerolobium	medium		
Gentianaceae	*Centaurium	erythraea		

Family	Genus	Species	Rank	Infra Name
Geraniaceae	Geranium	solanderi		
Geraniaceae	Pelagonium	littorale		
Goodeniaceae	Dampiera	alata		
Goodeniaceae	Dampiera	linearis		
Goodeniaceae	Goodenia	coerulea		
Goodeniaceae	Goodenia	eatoniana		
Goodeniaceae	Goodenia	pusilla		
Goodeniaceae	Goodenia	trinervis		
Goodeniaceae	Lechenaultia	expansa		
Goodeniaceae	Scaevola	calliptera		
Haemodoraceae	Anigozanthos	flavidus		
Haemodoraceae	Anigozanthos	manglesii	subsp.	manglesii
Haemodoraceae	Anigozanthos		sp.	indet
Haemodoraceae	Conostylis	aculeata	subsp.	aculeata
Haemodoraceae	Conostylis	aculeata	subsp.	preissii
Haemodoraceae	Conostylis	pusilla		
Haemodoraceae	Conostylis	serrulata		
Haemodoraceae	Conostylis	setigera		
Haemodoraceae	Haemodorum	laxum		
Haemodoraceae	Haemodorum	spicatum		
Haloragaceae	Glischrocaryon	angustifolium		
Haloragaceae	Myriophyllum	crispatum		
Hemerocallidaceae	Agrostocrinum	hirsutum		
Hemerocallidaceae	Caesia	micrantha		
Hemerocallidaceae	Chamaescilla	corymbosa		
Hemerocallidaceae	Stypandra	glauca		
Hemerocallidaceae	Tricoryne	elatior		
Hemerocallidaceae	Tricoryne	humilis		
Hypericaceae	*Hypericum	perforatum		
Iridaceae	*Chasmanthe	floribunda		
Iridaceae	*Gladiolus	undulatus		
Iridaceae	*Romulea	rosea		
Iridaceae	Patersonia	babianoides		
Iridaceae	Patersonia	occidentalis		
Iridaceae	Patersonia	pygmaea		
Juncaceae	*Juncus	oxycarpus		
Juncaceae	*Juncus		sp.	indet.
Juncaceae	Juncus	aff. imbricatus		
Juncaceae	Juncus	holoschoenus		
Juncaceae	Juncus	pallidus		
Juncaceae	Juncus	subsecundus		
Juncaginaceae	Cycnogeton	huegelii		
Juncaginaceae	Triglochin	striata		
Lamiaceae	*Lavandula	stoechas	subsp.	stoechas
Lamiaceae	Hemigenia	incana		
Lamiaceae	Hemigenia	pritzelii		
Lauraceae	Cassytha	racemosa	forma	pilosa
Lauraceae	Cassytha	racemosa	forma	racemosa
Linaceae	*Linum	trigynum		
Linaceae	Linum	marginale		

Family	Genus	Species	Rank	Infra Name
Lindsaeaceae	Lindsaea	linearis		
Loganiaceae	Orianthera	serpyllifolia		
Loranthaceae	Amyema	miquelii		
Lythraceae	*Lythrum	hyssopifolia		
Malvaceae	Thomasia	grandiflora		
Menyanthaceae	Ornduffia	parnassifolia		
Myrtaceae	*Eucalyptus	resinifera		
Myrtaceae	Agonis	flexuosa		
Myrtaceae	Astartea	scoparia		
Myrtaceae	Babingtonia	camphorosmae		
Myrtaceae	Calothamnus	sanguineus		
Myrtaceae	Corymbia	calophylla		
Myrtaceae	Eucalyptus	marginata		
Myrtaceae	Eucalyptus	patens		
Myrtaceae	Eucalyptus	rudis	subsp.	rudis
Myrtaceae	Hypocalymma	angustifolium		
Myrtaceae	Melaleuca	lateritia		
Myrtaceae	Melaleuca	rhaphiophylla		
Myrtaceae	Melaleuca	thymoides		
Myrtaceae	Melaleuca	viminea		
Myrtaceae	Taxandria	linearifolia		
Myrtaceae	Taxandria	parvifolia		
Olacaceae	Olax	benthamiana		
Oleaceae	*Olea	europaea		
Orchidaceae	*Disa	bracteata		
Orchidaceae	Caladenia	flava	subsp.	flava
Orchidaceae	Caladenia	macrostylis		
Orchidaceae	Cryptostylis	ovata		
Orchidaceae	Diuris		sp.	indet
Orchidaceae	Thelymitra	fuscolutea		
Orchidaceae	Thelymitra		sp.	indet
Orobanchaceae	*Orobanche	minor		
Orobanchaceae	*Parentucellia	latifolia		
Oxalidaceae	*Oxalis	glabra		
Oxalidaceae	*Oxalis	incarnata		
Oxalidaceae	Oxalis	perennans		
Papaveraceae	*Fumaria	capreolata		
Phyllanthaceae	Lysiandra	calycina		
Phyllanthaceae	Poranthera	microphylla		
Pinaceae	*Pinus	radiata		
Pittosporaceae	Billardiera	fusiformis		
Pittosporaceae	Billardiera	variifolia		
Plantaginaceae	*Plantago	lanceolata		
Plantaginaceae	Gratiola	pubescens		
Plantaginaceae	Veronica	calycina		
Poaceae	*Aira	cupaniana		
Poaceae	*Aristida	ramosa		
Poaceae	*Avena	barbata		
Poaceae	*Briza	maxima		
Poaceae	*Briza	minor		

Family	Genus	Species	Rank	Infra Name
Poaceae	*Bromus	diandrus		
Poaceae	*Bromus	hordeaceus		
Poaceae	*Cortaderia	selloana	subsp.	selloana
Poaceae	*Cynodon	dactylon		
Poaceae	*Cynosurus	echinatus		
Poaceae	*Ehrharta	longiflora		
Poaceae	*Holcus	lanatus		
Poaceae	*Hordeum	leporinum		
Poaceae	*Hordeum	marinum		
Poaceae	*Lolium	rigidum		
Poaceae	*Phalaris	aquatica		
Poaceae	*Polypogon	monspeliensis		
Poaceae	*Stenotaphrum	secundatum		
Poaceae	*Vulpia	bromoides		
Poaceae	Amphipogon	debilis		
Poaceae	Anthosachne	scabra		
Poaceae	Austrostipa	campylachne		
Poaceae	Austrostipa	setacea		
Poaceae	Deyeuxia	quadriseta		
Poaceae	Dichelachne	micrantha		
Poaceae	Microlaena	stipoides		
Poaceae	Neurachne	alopecuroides		
Poaceae	Poa	porphyrocladus		
Poaceae	Poaceae		sp.	indet
Poaceae	Rytidosperma	pilosum	subsp.	indet
Poaceae	Tetrarrhena	laevis		
Podocarpaceae	Podocarpus	drouynianus		
Polygalaceae	Comesperma	calymega		
Polygalaceae	Comesperma	ciliatum		
Polygalaceae	Comesperma	confertum		
Polygalaceae	Comesperma	virgatum		
Polygonaceae	*Rumex	acetosella		
Polygonaceae	*Rumex	conglomeratus		
Primulaceae	*Lysimachia	arvensis		
Primulaceae	Samolus	junceus		
Proteaceae	Banksia	dallanneyi	subsp.	sylvestris
Proteaceae	Banksia	grandis		
Proteaceae	Grevillea	trifida		
Proteaceae	Hakea	amplexicaulis		
Proteaceae	Hakea	lissocarpa		
Proteaceae	Hakea	prostrata		
Proteaceae	Hakea	undulata		
Proteaceae	Hakea	varia		
Proteaceae	Persoonia	longifolia		
Proteaceae	Synaphea	gracillima		
Pteridaceae	Cheilanthes	austrotenuifolia		
Ranunculaceae	Clematis	pubescens		
Ranunculaceae	Ranunculus	colonorum		
Restionaceae	Desmocladus	fasciculatus		
Restionaceae	Hypolaena	exsulca		

Family	Genus	Species	Rank	Infra Name
Restionaceae	Leptocarpus	depilatus		
Restionaceae	Leptocarpus	kraussii		
Restionaceae	Loxocarya	cinerea		
Rhamnaceae	Cryptandra	arbutiflora		
Rhamnaceae	Trymalium	odoratissimum		
Rosaceae	*Prunus	sp. indet.		
Rosaceae	*Rubus	anglocandicans		
Rosaceae	Acaena	echinata		
Rubiaceae	*Galium	divaricatum		
Rubiaceae	Opercularia	apiciflora		
Rubiaceae	Opercularia	hispidula		
Rutaceae	Boronia	spathulata		
Rutaceae	Philotheca	spicata		
Santalaceae	Leptomeria	cunninghamii		
Solanaceae	*Solanum	nigrum		
Stylidiaceae	Levenhookia	pusilla		
Stylidiaceae	Levenhookia	stipitata		
Stylidiaceae	Styliodium	adnatum		
Stylidiaceae	Styliodium	affine		
Stylidiaceae	Styliodium	amoenum		
Stylidiaceae	Styliodium	androsaceum		
Stylidiaceae	Styliodium	ciliatum		
Stylidiaceae	Styliodium	crassifolium		
Stylidiaceae	Styliodium	spathulatum		
Stylidiaceae	Styliodium	tenue	subsp.	tenue
Thymelaeaceae	Pimelea	ciliata	subsp.	ciliata
Violaceae	Hybanthus	floribundus		
Xanthorrhoeaceae	Xanthorrhoea	gracilis		
Xanthorrhoeaceae	Xanthorrhoea	preissii		
Zamiaceae	Macrozamia	riedlei		

# APPENDIX 6

Coordinates for *Lepidosperma* sp. ONS-6731 recorded from within the study area and from the adjacent Salt Water Gully project area  
(Onshore Environmental 2023b)

Taxon	Study Area	No. Plants	% Cover	Height (m)	Easting	Northing
Lepidosperma sp. ONS-6731	Additional Area North	4	<1	1.0	417457	6252029
Lepidosperma sp. ONS-6731	Additional Area North	10	<1	1.0	417532	6251920
Lepidosperma sp. ONS-6731	Salt Water Gully Extension	1	<1	1.0	417327	6252039
Lepidosperma sp. ONS-6731	Salt Water Gully Extension	2	<1	1.0	417326	6252026
Lepidosperma sp. ONS-6731	Salt Water Gully Extension	13	0.25	0.5-1.0	417250	6251459
Lepidosperma sp. ONS-6731	Salt Water Gully Extension	5	0.50	0.5-1.0	417872	6251291
Lepidosperma sp. ONS-6731	Salt Water Gully Extension	7	1	0.5-1.2	417861	6251312
Lepidosperma sp. ONS-6731	Salt Water Gully Extension	10	1	0.7-1.2	417851	6251358

# APPENDIX 7

Species by site matrix for the study area

Taxon	AN 01	AN 02	AN 03	AN 04	AN 05	AN 06	AN 07	AN 08	AN 09	AN 10	AN 11	AN 12	AN 13	AN 14	AN 15	AN 16	AN 17	AN 18	AN 19	AN 20	AN 21	AN 22	AN 23	AN 24	AN 25	AN 26	AN 27	AN 28	AN 29	AN 30	AN 31	AN 32	AN 33	AN 34	AN 35	AN 36	AN 37	AN 38	AN 39	AN 40
*Aira cupaniana	x	x	x								x	x		x			x												x	x		x	x	x						
*Allium triquetrum									x																															
*Asparagus asparagoides																			x			x	x																	
*Avena barbata			x	x					x	x										x	x	x	x	x																
*Brassica tournefortii										x																														
*Briza maxima	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
*Briza minor					x				x			x		x					x		x																			
*Bromus diandrus			x	x					x	x													x	x																
*Bromus hordeaceus									x														x																	
*Carduus pycnocephalus									x														x																	
*Centaurium erythraea							x											x	x																x					
*Chasmanthe floribunda									x																															
*Cynodon dactylon							x	x														x																		
*Cynosurus echinatus																						x	x																	
*Cyperus congestus							x																																	
*Disa bracteata											x				x	x																								
*Ehrharta longiflora								x													x	x																		
*Eucalyptus resinifera																								x									x							
*Holcus lanatus								x	x												x																			
*Hordeum leporinum								x																																
*Hypericum perforatum																		x																						
*Hypochaeris glabra	x	x	x	x	x	x	x	x						x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
*Isolepis prolifera								x												x																				
*Juncus sp. indet																														x										
*Lolium rigidum							x	x								x																								
*Lotus subbiflorus	x						x											x																						
*Lysimachia arvensis		x	x				x	x								x		x		x	x								x			x		x						
*Lythrum hyssopifolia							x	x											x			x																		
*Olea europaea																			x				x																	
*Orobanche minor	x																x				x																			
*Oxalis glabra							x									x			x											x										
*Parentucellia latifolia									x											x																				
*Petrorthagia dubia									x	x									x																					
*Phalaris aquatica								x	x									x		x		x	x						x			x		x						
*Picris angustifolia	x							x	x								x		x		x	x	x																	
*Pinus radiata							x	x								x			x		x	x	x																	
*Plantago lanceolata								x	x							x				x								x												
*Polypogon monspeliensis								x																																
*Raphanus raphanistrum							x																																	
*Romulea rosea																	x				x																			
*Rorippa nasturtium-aquaticum																	x			x																				
*Rubus anglocandicans							x	x								x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
*Rumex conglomeratus							x</td																																	

Taxon	AN 01	AN 02	AN 03	AN 04	AN 05	AN 06	AN 07	AN 08	AN 09	AN 10	AN 11	AN 12	AN 13	AN 14	AN 15	AN 16	AN 17	AN 18	AN 19	AN 20	AN 21	AN 22	AN 23	AN 24	AN 25	AN 26	AN 27	AN 28	AN 29	AN 30	AN 31	AN 32	AN 33	AN 34	AN 35	AN 36	AN 37	AN 38	AN 39	AN 40			
Acacia latericola																												x															
Acacia nervosa																					x	x											x										
Acacia pulchella	x	x			x	x	x					x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
Acacia saligna								x	x																				x			x			x								
Acacia stenoptera																													x	x													
Acacia urophylla																													x			x			x								
Acaena echinata					x	x	x	x				x								x				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
Agrostocrinum hirsutum	x											x												x	x					x			x			x							
Alternanthera denticulata										x																																	
Amphipogon debilis																													x			x			x								
Anigozanthos sp. indet																													x	x				x									
Anthosachne scabra																			x	x																							
Astartea scoparia							x	x																						x			x			x							
Austrostipa campylachne	x	x			x	x						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
Babingtonia camphorosmae							x														x	x						x	x	x	x	x	x	x	x	x	x	x	x				
Banksia dallanneyi subsp. sylvestris						x														x	x							x	x	x	x	x	x	x	x	x	x	x	x				
Banksia grandis	x	x	x		x							x				x				x			x			x							x			x			x			x	
Billardiera fusiformis		x	x						x	x						x			x			x			x			x	x	x	x	x	x	x	x	x	x	x	x				
Billardiera variifolia									x																																		
Boronia spathulata												x																														x	
Bossiaea aquifolium																														x													
Bossiaea linophylla	x		x		x		x						x	x	x	x	x	x	x								x	x	x	x	x	x	x	x	x	x	x	x					
Bossiaea ornata	x	x			x	x	x					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
Brachyscome iberidifolia																													x	x													
Burchardia congesta				x																x	x				x																		
Caesia micrantha																		x		x	x												x					x					
Caladenia macrostylis	x																																										
Callistachys lanceolata																																	x										
Cassytha racemosa forma pilosa	x												x	x	x	x	x	x	x								x	x	x	x	x	x	x	x	x	x	x	x					
Cassytha racemosa forma racemosa												x																x	x	x	x	x	x	x	x	x	x	x	x				
Chamaescilla corymbosa						x																			x																		
Chorizandra enodis											x																						x										
Chorizema cordatum									x																						x			x			x						
Clematis pubescens	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
Comesperma calymega																																										x	
Comesperma ciliatum																															x			x			x						
Conostylis aculeata subsp. aculeata											x								x																								



Taxon	AN 01	AN 02	AN 03	AN 04	AN 05	AN 06	AN 07	AN 08	AN 09	AN 10	AN 11	AN 12	AN 13	AN 14	AN 15	AN 16	AN 17	AN 18	AN 19	AN 20	AN 21	AN 22	AN 23	AN 24	AN 25	AN 26	AN 27	AN 28	AN 29	AN 30	AN 31	AN 32	AN 33	AN 34	AN 35	AN 36	AN 37	AN 38	AN 39	AN 40
<i>Levenhookia pusilla</i>																													x		x									
<i>Levenhookia stipitata</i>																														x										
<i>Lindsaea linearis</i>																														x										
<i>Linum marginale</i>																			x																					
<i>Lobelia anceps</i>								x	x	x														x										x						
<i>Lomandra caespitosa</i>	x						x																		x	x	x	x	x	x	x	x	x	x	x	x				
<i>Lomandra cf. drummondii</i>	x																								x			x	x	x	x	x	x	x	x	x				
<i>Lomandra hermaphrodita</i>	x	x																						x					x	x	x	x	x	x	x	x				
<i>Lomandra integra</i>																								x							x									
<i>Lomandra pauciflora</i>																			x																					
<i>Lomandra sericea</i>								x									x												x	x	x	x	x	x	x	x	x	x		
<i>Loxocarya cinerea</i>							x																											x						
<i>Lysiandra calycina</i>	x						x										x	x	x	x								x		x	x	x	x	x	x	x	x			
<i>Machaerina rubiginosa</i>								x																						x		x	x	x	x	x	x	x	x	
<i>Macrozamia riedlei</i>	x	x	x	x	x	x	x	x	x						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
<i>Microlaena stipoides</i>			x	x	x	x	x	x						x		x		x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
<i>Millotia tenuifolia</i>																													x											
<i>Monotaxis occidentalis</i>																	x							x			x	x	x	x	x	x	x	x	x	x				
<i>Morelotia octandra</i>				x															x	x	x	x	x				x	x	x	x	x	x	x	x	x	x				
<i>Myriophyllum crispatum</i>																																	x							
<i>Netrostylis sp. Jarrah Forest</i>	x	x	x				x						x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
<i>Neurachne alopecuroides</i>	x																	x																		x				
<i>Opercularia apiciflora</i>	x	x					x						x	x											x	x	x	x	x	x	x	x	x	x	x					
<i>Opercularia hispidula</i>	x	x	x		x	x	x						x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
<i>Orianthera serpyllifolia</i>	x	x				x	x						x											x		x							x	x	x					
<i>Ornduffia parnassifolia</i>								x																																
<i>Oxalis perennans</i>			x	x	x								x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
<i>Patersonia babianoides</i>	x	x											x		x													x						x			x			
<i>Patersonia occidentalis</i>										x						x	x											x												
<i>Pentapeltis silvatica</i>	x	x			x					x				x										x	x	x	x	x	x	x	x	x	x	x	x					
<i>Persoonia longifolia</i>	x	x	x	x	x	x	x	x					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
<i>Philoteca spicata</i>																			x								x	x	x	x	x	x	x	x	x	x	x			
<i>Pimelea ciliata</i>				x														x																			x			
<i>Pithocarpa ramosa</i>																								x																
<i>Poa porphyrocladus</i>																				x														x						
<i>Poaceae sp. indet</i>	x												x		x																									
<i>Podolepis gracilis</i>			x										x		x												x			x	x	x	x	x	x	x	x	x		
<i>Podotheca angustifolia</i>																																						x		
<i>Poranthera micro</i>																																								

Taxon	AN 01	AN 02	AN 03	AN 04	AN 05	AN 06	AN 07	AN 08	AN 09	AN 10	AN 11	AN 12	AN 13	AN 14	AN 15	AN 16	AN 17	AN 18	AN 19	AN 20	AN 21	AN 22	AN 23	AN 24	AN 25	AN 26	AN 27	AN 28	AN 29	AN 30	AN 31	AN 32	AN 33	AN 34	AN 35	AN 36	AN 37	AN 38	AN 39	AN 40		
<i>Stylium ciliatum</i>																																			x							
<i>Stylium spathulatum</i>											x																			x												
<i>Stylium tenue</i> subsp. <i>tenue</i>																													x			x										
<i>Stypandra glauca</i>																					x			x																		
<i>Styphelia discolor</i>												x						x			x								x	x	x	x										
<i>Styphelia erectifolia</i>																													x	x	x	x										
<i>Styphelia pallida</i>								x													x								x	x	x	x	x									
<i>Styphelia propinqua</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
<i>Taxandria linearifolia</i>								x	x	x	x										x								x			x		x								
<i>Tetrarrhena laevis</i>	x	x	x				x					x	x	x	x	x	x					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
<i>Tetratheca affinis</i>																						x			x			x		x		x		x								
<i>Tetratheca hirsuta</i> subsp. <i>viminea</i>	x						x	x	x			x					x					x	x	x	x	x	x	x					x	x								
<i>Tetratheca hispidissima</i>												x	x	x								x			x																	
<i>Thelymitra</i> sp. indet				x	x	x					x											x			x			x	x	x	x	x	x	x	x	x	x	x				
<i>Thomasia grandiflora</i>																											x								x							
<i>Thysanotus multiflorus</i>	x																						x											x								
<i>Thysanotus patersonii</i>																																		x								
<i>Thysanotus sparteus</i>																																		x	x							
<i>Thysanotus tenellus</i>																		x														x										
<i>Trachymene pilosa</i>	x	x				x												x												x		x	x	x	x	x	x	x	x			
<i>Tremandra diffusa</i>												x							x																							
<i>Trichocline spathulata</i>	x	x	x	x	x							x										x																				
<i>Tricoryne elatior</i>												x										x									x											
<i>Tricoryne humilis</i>	x																			x	x																					
<i>Triglochin striata</i>							x																																			
<i>Tripterococcus brunonis</i>																														x	x	x	x	x	x	x	x	x	x			
<i>Veronica calycina</i>	x															x		x	x									x	x	x	x	x	x	x	x	x	x	x				
<i>Wahlenbergia capillaris</i>	x	x			x			x	x								x		x																							
<i>Xanthorrhoea gracilis</i>	x	x				x	x										x	x			x			x		x	x	x	x	x	x	x	x	x	x	x	x	x				
<i>Xanthorrhoea preissii</i>					x														x	x	x			x				x	x	x	x	x	x	x	x	x	x	x	x			
<i>Xanthosia atkinsoniana</i>																																	x									
<i>Xanthosia candida</i>	x	x	x				x			x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x					
<i>Xanthosia huegelii</i>											x																		x	x	x	x	x	x	x	x	x	x	x			

# APPENDIX 8

Representative photographs, raw data and total flora spreadsheets  
recorded for the 40 quadrats assessed within the study area

### Study Sites

Site	Landform	Broad Floristic Formation	Vegetation Type	Condition	Last Fire	Easting	Northing
AN-01	Hillcrest/ Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Low Heath D of Leucopogon capitellatus, Bossiaea ornata and Hibbertia amplexicaulis with Open Low Woodland B of Eucalyptus marginata and Corymbia calophylla over Open Low Scrub B of Pteridium esculentum over Dwarf Scrub C of Acacia pulchella, Macrozamia riedlei and Xanthorrhoea gracilis	Very Good	Moderate (3 to 5 yr)	416531	6254348
AN-02	Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Low Woodland A of Banksia grandis over Scrub of Bossiaea linophylla over Low Scrub a of Pteridium esculentum and Bossiaea linophylla over Dwarf Scrub C of Leucopogon capitellatus, Hibbertia commutata and Hibbertia amplexicaulis	Very Good	Old (6+ yr)	416521	6254754
AN-03	Hillcrest/ Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Dwarf Scrub D of Leucopogon capitellatus, Bossiaea ornata and Hibbertia amplexicaulis with Open Dwarf Scrub C of Macrozamia riedlei and Styphelia propinquua over Very Open Low Sedges of Desmocladus fasciculatus	Very Good	Recent (0 to 2 yr)	416898	6255078
AN-04	Hillslope	Corymbia Forest	Forest of Corymbia calophylla and Eucalyptus marginata over Low Woodland A of Banksia grandis over Dwarf Scrub C of Pteridium esculentum and Macrozamia riedlei with Open Scrub of Bossiaea linophylla	Very Good	Old (6+ yr)	417021	6254599
AN-05	Hillslope	Corymbia Forest	Forest of Corymbia calophylla and Eucalyptus marginata over Heath B of Pteridium esculentum and Xanthorrhoea preissii over Open Low Grass of *Briza maxima and Microlanena stipoides over Open Herbs of Ranunculus colonorum, *Lysmachia arvensis and *Oxalis sp. indet with Open Dwarf Scrub D of Styphelia propinquua , Hibbertia commutata and Leucopogon capitellatus	Good	Old (6+ yr)	416584	6252884
AN-06	Hillcrest/ Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Open Low Woodland B of Eucalyptus marginata and Corymbia calophylla over Open Dwarf Scrub C of Pteridium esculentum, Macrozamia riedlei and Styphelia propinquua over Open Dwarf Scrub D of Leucopogon capitellatus, Bossiaea ornata and Hibbertia commutata	Good	Old (6+ yr)	416569	6253351
AN-07	Hillcrest/ Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Low Woodland B of Banksia grandis and Persoonia longifolia with Low Scrub A of Pteridium esculentum over Dwarf Scrub C of Styphelia propinquua, Macrozamia riedlei and Leucopogon verticillata over Open Dwarf Scrub D of Leucopogon capitellatus, Bossiaea ornata and Opercularia hispidula over Very Open Low Grass of *Briza maxima	Good	Old (6+ yr)	416514	6253654

Site	Landform	Broad Floristic Formation	Vegetation Type	Condition	Last Fire	Easting	Northing
AN-08	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Dwarf Scrub C of <i>Pteridium esculentum</i> , <i>Macrozamia riedlei</i> and <i>Xanthorrhoea gracilis</i> over Open Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Hibbertia amplexicaulis</i> and <i>Lysiandra calycina</i> over Very Open Low Grass of * <i>Briza maxima</i> and <i>Microlaena stipoides</i>	Very Good	Moderate (3 to 5 yr)	417085	6253536
AN-09	Medium Drainage Line	Eucalyptus Forest	Forest of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> and <i>Pinus radiata</i> over Low Grass of * <i>Holcus</i> sp., * <i>Briza maxima</i> and * <i>Avena barbata</i> with Low Scrub A of * <i>Rubus anglocandicans</i> with Open Scrub of <i>Taxandria linearifolia</i> over Very Open Sedges of <i>Juncus pallidus</i> over Very Open Herbs of * <i>Lysimachia arvensis</i> , * <i>Lotus subbiflorus</i> and <i>Triglochin</i> sp. 'thin'	Degraded	Old (6+ yr)	417202	6252188
AN-10	Medium Drainage Line	Eucalyptus Forest	Forest of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> and <i>Pinus radiata</i> over Thicket of * <i>Rubus anglocandicans</i> over Open Tall Sedges of * <i>Chasmanthe floribunda</i> over Open Tall Grass of * <i>Phleum</i> sp., * <i>Holcus</i> sp. and * <i>Cynodon dactylon</i> with Open Low Woodland A of <i>Acacia saligna</i>	Completely Degraded	Old (6+ yr)	417630	6252129
AN-11	Wetland	Taxandria Thicket	Thicket of <i>Taxandria linearifolia</i> over Open Tall Sedges of <i>Machaerina rubiginosa</i> , <i>Leptocarpus depilatus</i> and * <i>Juncus holoschoenus</i> with Open Woodland of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> over Open Low Scrub A of <i>Billardiera fusiformis</i> , <i>Hakea varia</i> and <i>Acacia celastrifolia</i>	Good	Old (6+ yr)	415241	6254634
AN-12	Drainage Area/ Floodplain	Hypocalymma Low Heath C	Low Heath C of <i>Hypocalymma angustifolium</i> and <i>Acacia pulchella</i> with Woodland of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> , <i>Eucalyptus patens</i> and <i>Corymbia calophylla</i> over Scrub of <i>Hakea prostrata</i> , <i>Gastrolobium bilobum</i> and <i>Gastrolobium spinosum</i> over Open Low Scrub A of <i>Acacia celastrifolia</i> over Very Open Herbs of <i>Dampiera alata</i> over Very Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis)	Degraded	Old (6+ yr)	415289	6254480
AN-13	Hillcrest/ Upper Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Low Heath D of <i>Leucopogon capitellatus</i> , <i>Hibbertia hypericoides</i> and <i>Hibbertia commutata</i> with Open Scrub of <i>Bossiaea linophylla</i> , <i>Acacia extensa</i> and <i>Acacia celastrifolia</i>	Very Good	Moderate (3 to 5 yr)	415717	6255465
AN-14	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Hibbertia amplexicaulis</i> and <i>Hibbertia commutata</i> with Open Low Scrub B of <i>Pteridium esculentum</i> over Open Dwarf Scrub C of <i>Macrozamia riedlei</i> and <i>Pteridium esculentum</i>	Very Good	Old (6+ yr)	415508	6255165
AN-15	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Hibbertia commutata</i> and <i>Bossiaea ornata</i> with Open Low Scrub B of <i>Pteridium esculentum</i> over Open Dwarf Scrub C of <i>Macrozamia riedlei</i> , <i>Pteridium esculentum</i> and <i>Styphelia propinqua</i>	Very Good	Old (6+ yr)	415472	6254715

Site	Landform	Broad Floristic Formation	Vegetation Type	Condition	Last Fire	Easting	Northing
AN-16	Hillcrest/ Upper Hillslope	Corymbia Forest	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over Thicket of <i>Bossiaea linophylla</i> over Low Scrub B of <i>Pteridium esculentum</i> over Open Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Hibbertia commutata</i> and <i>Hibbertia amplexicaulis</i>	Very Good	Old (6+ yr)	415900	6254816
AN-17	Hillcrest/ Upper Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Scrub of <i>Bossiaea linophylla</i> over Low Scrub A of <i>Pteridium esculentum</i> over Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Opercularia hispidula</i> and <i>Hibbertia amplexicaulis</i> with Open Dwarf Scrub C of <i>Macrozamia riedlei</i> and <i>Leucopogon verticillata</i>	Very Good	Old (6+ yr)	415923	6255214
AN-18	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Low Woodland B of <i>Persoonia longifolia</i> over Open Dwarf Scrub C of <i>Desmocladus fasciculatus</i> over Open Dwarf Scrub D of <i>Hibbertia commutata</i> , <i>Leucopogon capitellatus</i> and <i>Hibbertia amplexicaulis</i> over Very Open Tall Grass of * <i>Briza maxima</i> and <i>Microlaena stipoides</i>	Very Good	Old (6+ yr)	417368	6254654
AN-19	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Low Woodland B of <i>Banksia grandis</i> and <i>Persoonia longifolia</i> over Dwarf Scrub C of <i>Pteridium esculentum</i> and <i>Macrozamia riedlei</i> over Dwarf Scrub D of <i>Lysiandra calycina</i> , <i>Leucopogon capitellatus</i> and <i>Hibbertia commutata</i> over Very Open Low Grass of * <i>Briza maxima</i>	Very Good	Old (6+ yr)	417381	6253263
AN-20	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> with Low Heath D of <i>Lysiandra calycina</i> , <i>Leucopogon capitellatus</i> and <i>Hibbertia amplexicaulis</i> with Open Dwarf Scrub of <i>Macrozamia riedlei</i> and <i>Pteridium esculentum</i> over Very Open Low Grass of * <i>Briza maxima</i>	Very Good	Old (6+ yr)	417473	6253613
AN-21	Hillslope	Corymbia Forest	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over Dwarf Scrub D of <i>Tremandra diffusa</i> , <i>Leucopogon capitellatus</i> and <i>Lysiandra calycina</i> over Open Low Sedges of <i>Desmocladus fasciculatus</i> , <i>Patersonia occidentalis</i> and <i>Cyathochaeta avenacea</i> over Very Open Low Grass of * <i>Briza maxima</i>	Good	Old (6+ yr)	417315	6253859
AN-22	Boulders/ Rockpiles	Corymbia Low Woodland A	Low Woodland A of <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over Dwarf Scrub C of <i>Hemigenia incana</i> and <i>Hypocalymma angustifolium</i> over Dwarf Scrub D of <i>Hypocalymma angustifolium</i> , <i>Stylium affine</i> and <i>Banksia dallennyi</i> over Open Low Sedges of <i>Morelotia octandra</i> , <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391) and <i>Lepidosperma leptostachyum</i> with Open Low Scrub A of <i>Hakea lissocarpa</i> and <i>Acacia pulchella</i>	Good	Moderate (3 to 5 yr)	417453	6251969
AN-23	Boulders/ Rockpiles	Corymbia Low Woodland A	Low Woodland A of <i>Corymbia calophylla</i> , <i>Eucalyptus marginata</i> and <i>Eucalyptus patens</i> over Low Scrub B of <i>Hemigenia incana</i> , <i>Billardiera fusiformis</i> and * <i>Rubus anglocandicans</i> over Dwarf Scrub D of <i>Opercularia hispidula</i> , <i>Stylium affine</i> and <i>Hibbertia commutata</i> over Open Low Grass of * <i>Briza maxima</i> , * <i>Avena barbata</i> and <i>Austrostipa campylachne</i> with Open Low Scrub A of <i>Xanthorrhoea preissii</i> , <i>Acacia pulchella</i> and <i>Hakea lissocarpa</i> over Very Open Low Sedges of <i>Lepidosperma leptostachyum</i> and <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391)	Degraded	Moderate (3 to 5 yr)	417497	6252014

Site	Landform	Broad Floristic Formation	Vegetation Type	Condition	Last Fire	Easting	Northing
AN-24	Minor Drainage Line	Eucalyptus Forest	Forest of Eucalyptus rudis subsp. rudis, Corymbia calophylla and *Pinus radiata over Tall Grass of *Avena barbata, *Holcus sp. and *Briza maxima with Open Scrub of Taxandria linearifolia over Open Tall Sedges of Juncus pallidus over Open Low Sedges of *Cyperus prolifer	Degraded	Old (6+ yr)	416777	6252197
AN-25	Boulders/Rockpiles	Eucalyptus Forest	Forest of Eucalyptus patens, Corymbia calophylla and *Pinus radiata over Low Scrub A of *Rubus anglocandicans and Xanthorrhoea preissii over Dwarf Scrub D of Netrostylis sp. Jarrah Forest (R. Davis), Styphelia glaucifolia and Morelotia octandra over Open Low Grass of *Briza maxima, *Bromus diandrus and *Avena barbata	Degraded	Old (6+ yr)	416918	6252244
AN-26	Hillcrest/Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Low Heath D of Leucopogon capitellatus, Bossiaea ornata and Opercularia hispidula with Low Open Woodland B of Eucalyptus marginata, Corymbia calophylla and Persoonia longifolia over Open Dwarf Scrub C of Macrozamia riedlei, Pteridium esculentum and Xanthorrhoea gracilis	Very Good	Old (6+ yr)	416784	6254029
AN-27	Hillcrest/Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Thicket of Bossiaea linophylla over Dwarf Scrub D of Leucopogon capitellatus, Hibbertia hypericoides and Bossiaea ornata with Low Open Woodland B of Persoonia longifolia and Banksia grandis over Open Dwarf Scrub C of Pteridium esculentum and Macrozamia riedlei	Very Good	Old (6+ yr)	416237	6254616
AN-28	Hillcrest/Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Low Heath D of Bossiaea ornata, Leucopogon capitellatus and Tetratheca hispidissima with Low Open Woodland B of Eucalyptus marginata, Corymbia calophylla and Persoonia longifolia over Open Low Scrub B of Pteridium esculentum over Open Dwarf Scrub C of Macrozamia riedlei, Leucopogon verticillata and Hakea amplexicaulis	Very Good	Old (6+ yr)	415759	6254509
AN-29	Hillcrest/Upper Hillslope	Eucalyptus Forest	Forest of Eucalyptus marginata and Corymbia calophylla over Low Heath D of Bossiaea ornata, Leucopogon capitellatus and Hibbertia amplexicaulis with Low Open Woodland B of Eucalyptus marginata, Corymbia calophylla and Persoonia longifolia over Open Low Scrub B of Pteridium esculentum over Open Dwarf Scrub C of Macrozamia riedlei, Pteridium esculentum and Acacia pulchella	Very Good	Old (6+ yr)	416068	6254311
AN-30	Hillslope	Corymbia Forest	Forest of Corymbia calophylla and Eucalyptus marginata over Scrub of Bossiaea linophylla over Low Scrub A of Pteridium esculentum over Dwarf Scrub D of Bossiaea ornata, Leucopogon capitellatus and Opercularia hispidula with Low Woodland A of Eucalyptus marginata, Corymbia calophylla and Persoonia longifolia	Very Good	Old (6+ yr)	415997	6254004

Site	Landform	Broad Floristic Formation	Vegetation Type	Condition	Last Fire	Easting	Northing
AN-31	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus patens</i> , <i>Corymbia calophylla</i> , <i>Eucalyptus marginata</i> and * <i>Eucalyptus resinifera</i> over Scrub of <i>Acacia celastrifolia</i> over Low Scrub B of <i>Acacia pulchella</i> , <i>Acacia latericola</i> and <i>Billardiera fusiformis</i> over Dwarf Scrub D of <i>Hypocalymma angustifolium</i> and <i>Lysandra calycina</i> over Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391), <i>Desmocladus fasciculatus</i> and <i>Lepidosperma leptostachyum</i> over Very Open Herbs of <i>Stylium spathulatum</i> , <i>Dampiera alata</i> and <i>Stylium tenuie</i>	Good	Old (6+ yr)	415393	6254323
AN-32	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Dwarf Scrub D of <i>Banksia dallanneyi</i> , <i>Hypocalymma angustifolium</i> and <i>Leucopogon capitellatus</i> over Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391), <i>Lepidosperma leptostachyum</i> and <i>Desmocladus fasciculatus</i> with Low Open Woodland B of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Scrub of <i>Hakea prostrata</i> , <i>Acacia pulchella</i> and <i>Acacia celastrifolia</i> over Open Low Scrub A of <i>Xanthorrhoea preissii</i> and <i>Acacia pulchella</i>	Very Good	Old (6+ yr)	415513	6254157
AN-33	Footslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Dwarf Scrub D of <i>Hibbertia hypericoides</i> , <i>Banksia dallanneyi</i> and <i>Hibbertia diamesogenos</i> with Open Low Woodland B of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Scrub of <i>Hakea prostrata</i> over Open Low Scrub B of <i>Xanthorrhoea preissii</i> and <i>Acacia pulchella</i> over Vey Open Low Sedges of <i>Desmocladus fasciculatus</i> , <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391) and <i>Morelotia octandra</i>	Very Good	Old (6+ yr)	415333	6254958
AN-34	Drainage Area/ Floodplain	Eucalyptus Forest	Forest of <i>Eucalyptus rufida</i> subsp. <i>rufida</i> , <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over Low Woodland B of <i>Acacia saligna</i> and <i>Callistachys lanceolata</i> over Scrub of <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> over Low Scrub A of * <i>Rubus anglocandicans</i> over Open Tall Sedges of <i>Machaerina rubiginosa</i> , <i>Chorizandra enodes</i> and <i>Leptocarpus</i> sp. ov	Degraded	Old (6+ yr)	415261	6254420
AN-35	Footslope	Corymbia Forest	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over Low Scrub B of <i>Xanthorrhoea preissii</i> , <i>Banksia dallanneyi</i> and <i>Babingtonia camphorosmae</i> over Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391), <i>Desmocladus fasciculatus</i> and <i>Lepidosperma leptostachyum</i> with Open Low Woodland B of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over Open Scrub of <i>Hakea prostrata</i>	Very Good	Old (6+ yr)	415273	6254873
AN-36	Hillcrest/ Upper Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Open Low Woodland B of <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> and <i>Persoonia longifolia</i> over Open Dwarf Scrub C of <i>Macrozamia riedlei</i> and <i>Pteridium esculentum</i> over Open Dwarf Scrub D of <i>Leucopogon capitellatus</i> , <i>Hibbertia commutata</i> and <i>Bossiaea ornata</i>	Very Good	Recent (0 to 2 yr)	417298	6255104
AN-37	Hillslope	Corymbia Forest	Forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over Low Heath D of <i>Hibbertia hypericoides</i> , <i>Leucopogon capitellatus</i> and <i>Philotrichum spicata</i> with Scrub of <i>Bossiaea linophylla</i> over Open Low Scrub C of <i>Macrozamia riedlei</i> , <i>Bossiaea linophylla</i> and <i>Pteridium esculentum</i> with Low Open Woodland B of <i>Persoonia longifolia</i>	Very Good	Moderate (3 to 5 yr)	416243	6255050

Site	Landform	Broad Floristic Formation	Vegetation Type	Condition	Last Fire	Easting	Northing
AN-38	Wetland	Eucalyptus Woodland	Woodland of <i>Eucalyptus rufa</i> subsp. <i>rufa</i> , <i>Corymbia calophylla</i> and * <i>Eucalyptus resinigera</i> over Scrub of <i>Taxandria linearifolia</i> , <i>Astartea scoparia</i> and <i>Gastrolobium biloba</i> over Open Tall Sedges of <i>Machaerina rubiginosa</i> , * <i>Juncus holoschoenus</i> and <i>Juncus pallidus</i> with Low Open Woodland B of <i>Acacia saligna</i> over Very Open Herbs of <i>Myriophyllum crispatum</i> and <i>Lobelia anceps</i>	Good	Old (6+ yr)	415244	6254534
AN-39	Hillslope	Eucalyptus Forest	Forest of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over Low Woodland A of <i>Banksia grandis</i> over Low Woodland B of <i>Banksia grandis</i> and <i>Persoonia longifolia</i> over Low Scrub D of <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> and <i>Styphelia propinqua</i> with Open Scrub of <i>Bossiaea linophylla</i> over Open Low Scrub B of <i>Pteridium esculentum</i> and <i>Bossiaea linophylla</i>	Very Good	Old (6+ yr)	416290	6254112
AN-40	Hillslope	Corymbia Low Forest B	Low Forest B of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over Scrub of <i>Acacia celastrifolia</i> over Dwarf Scrub D of <i>Hibbertia commutata</i> , <i>Banksia dallanneyi</i> and <i>Labichea punctata</i> with Open Dwarf Scrub C of <i>Macrozamia riedlei</i> and <i>Xanthorrhoea gracilis</i> over Very Open Low Sedges of <i>Netrostylis</i> sp. Jarrah Forest (R. Davis 7391) and <i>Desmocladus fasciculatus</i>	Good	Old (6+ yr)	416950	6253290

**Flora**

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-01	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.2
AN-01	Quadrat	*Briza	maxima			No	Introduced	0.5	0.2
AN-01	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.1
AN-01	Quadrat	Acacia	pulchella			No	Native	1	0.5-1
AN-01	Quadrat	Agrostocrinum	hirsutum			No	Native	<1	0.5
AN-01	Quadrat	Bossiaea	ornata			No	Native	35	<0.5
AN-01	Quadrat	Cassytha	racemosa	forma	pilosa	No	Native	<1	Cl
AN-01	Quadrat	Clematis	pubescens			No	Native	1	Cl
AN-01	Quadrat	Corymbia	calophylla			No	Native	33	15-30
AN-01	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-01	Quadrat	Desmocladus	fasciculatus			No	Native	0.5	0.1
AN-01	Quadrat	Dichelachne	micrantha			No	Native	<1	0.4
AN-01	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-01	Quadrat	Hibbertia	amplexicaulis			No	Native	2	<0.5
AN-01	Quadrat	Hibbertia	commutata			No	Native	1.5	0.1
AN-01	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-01	Quadrat	Lepidosperma	leptostachyum			No	Native	<1	0.7
AN-01	Quadrat	Leucopogon	capitellatus			No	Native	25	<0.5
AN-01	Quadrat	Leucopogon	verticillatus			No	Native	0.5	0.5
AN-01	Quadrat	Lomandra	caespitosa			No	Native	0.5	0.2
AN-01	Quadrat	Lomandra	cf. drummondii			No	Native	<1	0.5
AN-01	Quadrat	Lomandra	hermaphrodita			No	Native	<1	0.2
AN-01	Quadrat	Lysiandra	calycina			No	Native	<1	0.3
AN-01	Quadrat	Macrozamia	riedlei			No	Native	2	0.5-1
AN-01	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	1	0.3
AN-01	Quadrat	Opercularia	apiciflora			No	Native	<1	0.2
AN-01	Quadrat	Opercularia	hispidula			No	Native	1	0.4
AN-01	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2
AN-01	Quadrat	Patersonia	babianoides			No	Native	<1	0.2
AN-01	Quadrat	Pentapeltis	silvatica			No	Native	<1	0.1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-01	Quadrat	Persoonia	longifolia			No	Native	<1	0.5
AN-01	Quadrat	Poaceae		sp.	indet	No	Native	<1	0.3
AN-01	Quadrat	Pteridium	esculentum			No	Native	2.5	1-1.5
AN-01	Quadrat	Rytidosperma	pilosum	sp.	indet	No	Native	<1	0.3
AN-01	Quadrat	Scaevola	calliptera			No	Native	1	0.2
AN-01	Quadrat	Stylium	amoenum			No	Native	<1	0.2
AN-01	Quadrat	Styphelia	propinqua			No	Native	1	0.5
AN-01	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-01	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	1	3
AN-01	Quadrat	Wahlenbergia	capillaris			No	Native	<1	0.4
AN-01	Quadrat	Xanthorrhoea	gracilis			No	Native	2	0.5-1
AN-01 opp	Quadrat	Dichopogon	preissii			No	Native	<1	0.4
AN-02	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.1
AN-02	Quadrat	*Briza	maxima			No	Introduced	0.5	0.3
AN-02	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-02	Quadrat	*Picris	angustifolia			No	Introduced	<1	0.4
AN-02	Quadrat	Acacia	pulchella			No	Native	0.5	0.5
AN-02	Quadrat	Austrostipa	campylachne			No	Native	<1	0.6
AN-02	Quadrat	Banksia	grandis			No	Native	15	2-10
AN-02	Quadrat	Bossiaea	linophylla			No	Native	25	1.5-4
AN-02	Quadrat	Clematis	pubescens			No	Native	3	Cl
AN-02	Quadrat	Corymbia	calophylla			No	Native	33	15-30
AN-02	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-02	Quadrat	Dichelachne	micrantha			No	Native	<1	0.8
AN-02	Quadrat	Eucalyptus	marginata			No	Native	33	15-30
AN-02	Quadrat	Euchiton	collinus			No	Native	<1	0.2
AN-02	Quadrat	Hardenbergia	comptoniana			No	Native	<1	Cl
AN-02	Quadrat	Hibbertia	amplexicaulis			No	Native	3	0.3
AN-02	Quadrat	Hibbertia	commutata			No	Native	3	0.3
AN-02	Quadrat	Lagenophora	huegelii			No	Native	0.5	0.1
AN-02	Quadrat	Leucopogon	capitellatus			No	Native	5	0.3

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-02	Quadrat	Leucopogon	verticillatus			No	Native	<1	0.5-1
AN-02	Quadrat	Macrozamia	riedlei			No	Native	3.5	1
AN-02	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	1	0.3
AN-02	Quadrat	Neurachne	alopecuroides			No	Native	0.5	0.1
AN-02	Quadrat	Persoonia	longifolia			No	Native	<1	0.5-1.5
AN-02	Quadrat	Pteridium	esculentum			No	Native	10	1-2
AN-02	Quadrat	Ranunculus	colonorum			No	Native	<1	0.4
AN-02	Quadrat	Rytidosperma	pilosum	sp.	indet	No	Native	<1	0.3
AN-02	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-02	Quadrat	Sowerbaea	laxiflora			No	Native	<1	0.3
AN-02	Quadrat	Styphelia	propinqua			No	Native	0.5	0.5
AN-02	Quadrat	Tetrarrhena	laevis			No	Native	0.5	0.2
AN-02	Quadrat	Thysanotus	multiflorus			No	Native	<1	0.2
AN-02	Quadrat	Trachymene	pilosa			No	Native	<1	0.2
AN-02	Quadrat	Trichocline	spathulata			No	Native	<1	0.1
AN-02	Quadrat	Veronica	calycina			No	Introduced	<1	0.1
AN-02	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-03	Quadrat	*Aira	cupaniiana			No	Introduced	<1	0.2
AN-03	Quadrat	*Avena	barbata			No	Introduced	<1	0.7
AN-03	Quadrat	*Briza	maxima			No	Introduced	0.5	0.3
AN-03	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.1
AN-03	Quadrat	*Vulpia	bromoides			No	Introduced	<1	0.1
AN-03	Quadrat	Austrostipa	campylachne			No	Native	<1	0.5
AN-03	Quadrat	Bossiaea	ornata			No	Native	2	0.3
AN-03	Quadrat	Caladenia	macrostylis			No	Native	<1	0.2
AN-03	Quadrat	Clematis	pubescens			No	Native	0.5	Cl
AN-03	Quadrat	Corymbia	calophylla			No	Native	30	15-30
AN-03	Quadrat	Dampiera	alata			No	Native	<1	0.2
AN-03	Quadrat	Daucus	glochidiatus			No	Native	0.5	0.3
AN-03	Quadrat	Desmocladus	fasciculatus			No	Native	3	0.1
AN-03	Quadrat	Dichelachne	micrantha			No	Native	<1	0.8

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-03	Quadrat	Eucalyptus	marginata			No	Native	30	15-30
AN-03	Quadrat	Hibbertia	amplexicaulis			No	Native	2	0.4
AN-03	Quadrat	Hibbertia	commutata			No	Native	1.5	0.2
AN-03	Quadrat	Hibbertia	diamesogenos			No	Native	0.5	0.1
AN-03	Quadrat	Isotoma	hypocrateriformis			No	Native	<1	0.3
AN-03	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-03	Quadrat	Leucopogon	capitellatus			No	Native	6	0.3
AN-03	Opportunistic	Linum	marginale			No	Native	-	0.2
AN-03	Quadrat	Lomandra	hermaphrodita			No	Native	<1	0.1
AN-03	Quadrat	Macrozamia	riedlei			No	Native	3	0.5-1
AN-03	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	0.5	0.4
AN-03	Quadrat	Opercularia	apiciflora			No	Native	<1	0.2
AN-03	Quadrat	Opercularia	hispidula			No	Native	0.5	0.3
AN-03	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2
AN-03	Quadrat	Patersonia	babianoides			No	Native	<1	0.2
AN-03	Quadrat	Pentapeltis	silvatica			No	Native	<1	0.1
AN-03	Quadrat	Persoonia	longifolia			No	Native	<1	0.5
AN-03	Quadrat	Podolepis	gracilis			No	Native	<1	0.3
AN-03	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-03	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-03	Quadrat	Senecio	multicaulis			No	Native	<1	0.3
AN-03	Quadrat	Senecio	quadridentatus			No	Native	<1	0.5-1
AN-03	Quadrat	Styphelia	propinqua			No	Native	1	0.5-1
AN-03	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.2
AN-03	Quadrat	Trachymene	pilosa			No	Native	<1	0.1
AN-03	Quadrat	Trichocline	spathulata			No	Native	<1	0.2
AN-03	Quadrat	Tricoryne	humilis			No	Native	<1	0.1
AN-03	Quadrat	Wahlenbergia	capillaris			No	Native	<1	0.4
AN-03	Quadrat	Xanthorrhoea	gracilis			No	Native	0.5	0.5-1
AN-03	Quadrat	Xanthosia	candida			No	Native	0.5	0.1
AN-04	Quadrat	*Briza	maxima			No	Introduced	3.5	0.3

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-04	Quadrat	*Bromus	diandrus			No	Introduced	<1	0.3
AN-04	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-04	Quadrat	*Lotus	subbiflorus			No	Introduced	<1	0.1
AN-04	Quadrat	*Lysimachia	arvensis			No	Introduced	<1	0.1
AN-04	Quadrat	*Orobanche	minor			No	Introduced	<1	0.2
AN-04	Quadrat	Banksia	grandis			No	Native	22	5-15
AN-04	Quadrat	Billardiera	fusiformis			No	Native	<1	0.2
AN-04	Quadrat	Bossiaea	linophylla			No	Native	3	>2
AN-04	Quadrat	Clematis	pubescens			No	Native	4	Cl
AN-04	Quadrat	Corymbia	calophylla			No	Native	60	15-30
AN-04	Quadrat	Craspedia	variabilis			No	Native	<1	0.4
AN-04	Quadrat	Daucus	glochidiatus			No	Native	1.5	0.2
AN-04	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5
AN-04	Quadrat	Eucalyptus	marginata			No	Native	10	15-30
AN-04	Quadrat	Euchiton	collinus			No	Native	<1	0.15
AN-04	Quadrat	Geranium	solanderi			No	Native	<1	0.1
AN-04	Quadrat	Hardenbergia	comptoniana			No	Native	1	Cl
AN-04	Quadrat	Hibbertia	commutata			No	Native	0.5	0.25
AN-04	Quadrat	Kennedia	carinata			No	Native	<1	0.1
AN-04	Quadrat	Lagenophora	huegelii			No	Native	0.5	0.1
AN-04	Quadrat	Leucopogon	capitellatus			No	Native	0.5	0.4
AN-04	Quadrat	Leucopogon	verticillatus			No	Native	<1	0.5
AN-04	Quadrat	Macrozamia	riedlei			No	Native	5	0.5-1
AN-04	Quadrat	Microlaena	stipoides			No	Native	0.5	0.3
AN-04	Quadrat	Opercularia	hispidula			No	Native	1	0.3
AN-04	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-04	Quadrat	Persoonia	longifolia			No	Native	<1	1-4
AN-04	Quadrat	Pteridium	esculentum			No	Native	15	0.5-1.5
AN-04	Quadrat	Ptilotus	manglesii			No	Native	<1	0.1
AN-04	Quadrat	Scaevola	calliptera			No	Native	1	0.2
AN-04	Opportunistic	Stylium	adnatum			No	Native	-	-

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-04	Quadrat	Styphelia	propinqua			No	Native	1	0.5
AN-04	Quadrat	Trichocline	spathulata			No	Native	<1	0.2
AN-05	Quadrat	*Avena	barbata			No	Introduced	<1	0.8
AN-05	Quadrat	*Briza	maxima			No	Introduced	20	0.3
AN-05	Quadrat	*Briza	minor			No	Native	0.5	0.2
AN-05	Quadrat	*Bromus	diandrus			No	Introduced	<1	0.3
AN-05	Opportunistic	*Hypericum	perforatum			No	Introduced	-	-
AN-05	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.3
AN-05	Quadrat	*Lysimachia	arvensis			No	Introduced	3	0.1
AN-05	Opportunistic	*Olea	europaea			No	Introduced	-	-
AN-05	Opportunistic	*Pinus	radiata			No	Native	-	-
AN-05	Quadrat	*Sonchus	asper			No	Native	<1	0.5
AN-05	Quadrat	*Tolpis	virgata			No	Introduced	0.5	0.4
AN-05	Quadrat	Acacia	pulchella			No	Native	0.5	1-2
AN-05	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-05	Quadrat	Clematis	pubescens			No	Native	6	Cl
AN-05	Quadrat	Corymbia	calophylla			No	Native	50	15-30
AN-05	Quadrat	Daucus	glochidiatus			No	Native	0.5	0.2
AN-05	Quadrat	Eucalyptus	marginata			No	Native	20	15-30
AN-05	Quadrat	Geranium	solanderi			No	Native	<1	0.2
AN-05	Quadrat	Hibbertia	amplexicaulis			No	Native	0.5	0.35
AN-05	Quadrat	Hibbertia	commutata			No	Native	2	0.3
AN-05	Quadrat	Leucopogon	capitellatus			No	Native	2	0.3
AN-05	Quadrat	Leucopogon	verticillatus			No	Native	1.5	0.5-1
AN-05	Quadrat	Macrozamia	riedlei			No	Native	1	0.5-1
AN-05	Quadrat	Microlaena	stipoides			No	Native	5	0.3
AN-05	Quadrat	Morelotia	octandra			No	Native	<1	0.3
AN-05	Quadrat	Oxalis	perennans			No	Native	2	0.1
AN-05	Opportunistic	Pelagonium	littorale			No	Native	-	-
AN-05	Quadrat	Persoonia	longifolia			No	Native	0.5	3
AN-05	Quadrat	Pteridium	esculentum			No	Native	30	0.5-1.5

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-05	Quadrat	Ranunculus	colonorum			No	Native	3	0.5
AN-05	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.4
AN-05	Quadrat	Styphelia	propinqua			No	Native	2	0.5
AN-05	Quadrat	Xanthorrhoea	preissii			No	Native	1	1-2
AN-06	Quadrat	*Briza	maxima			No	Introduced	3	0.3
AN-06	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.1
AN-06	Quadrat	Acacia	pulchella			No	Native	1	0.5-1
AN-06	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-06	Quadrat	Austrostipa	campylachne			No	Native	1	0.4
AN-06	Quadrat	Billardiera	fusiformis			No	Native	<1	0.2
AN-06	Quadrat	Bossiaea	linophylla			No	Native	<1	0.4
AN-06	Quadrat	Bossiaea	ornata			No	Native	1	0.2
AN-06	Quadrat	Clematis	pubescens			No	Native	2	Cl
AN-06	Quadrat	Corymbia	calophylla			No	Native	35	<5-30
AN-06	Quadrat	Daucus	glochidiatus			No	Native	1	0.2
AN-06	Quadrat	Eucalyptus	marginata			No	Native	30	<5-30
AN-06	Quadrat	Hardenbergia	comptoniana			No	Native	1	Cl
AN-06	Quadrat	Hibbertia	amplexicaulis			No	Native	1	0.5
AN-06	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-06	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-06	Quadrat	Leucopogon	capitellatus			No	Native	6	0.3
AN-06	Quadrat	Leucopogon	verticillatus			No	Native	0.5	0.5
AN-06	Quadrat	Macrozamia	riedlei			No	Native	2	0.5-1
AN-06	Quadrat	Microlaena	stipoides			No	Native	<1	0.3
AN-06	Quadrat	Opercularia	hispidula			No	Native	0.5	0.4
AN-06	Quadrat	Oxalis	perennans			No	Native	1	0.1
AN-06	Quadrat	Pentapeltis	silvatica			No	Native	<1	0.1
AN-06	Quadrat	Persoonia	longifolia			No	Native	1	0.5-1
AN-06	Quadrat	Pimelea	ciliata			No	Native	<1	0.4
AN-06	Quadrat	Pteridium	esculentum			No	Native	4	0.5-1
AN-06	Quadrat	Ranunculus	colonorum			No	Native	<1	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-06	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-06	Quadrat	Scaevola	calliptera			No	Native	<1	0.1
AN-06	Quadrat	Styphelia	propinqua			No	Native	1	0.5-1
AN-06	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	<1	0.2
AN-06	Quadrat	Thelymitra		sp.	indet	No	Native	<1	0.2
AN-06	Quadrat	Trichocline	spathulata			No	Native	<1	0.15
AN-06	Quadrat	Wahlenbergia	capillaris			No	Native	<1	0.4
AN-07	Quadrat	*Briza	maxima			No	Introduced	8	<0.5
AN-07	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.3
AN-07	Quadrat	Acacia	pulchella			No	Native	<1	0.5
AN-07	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-07	Quadrat	Austrostipa	campylachne			No	Native	<1	0.5
AN-07	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	1.5	0.2
AN-07	Quadrat	Banksia	grandis			No	Native	15	<5
AN-07	Quadrat	Bossiaea	ornata			No	Native	3	0.3
AN-07	Quadrat	Burchardia	congesta			No	Native	<1	0.5
AN-07	Quadrat	Chamaescilla	corymbosa			No	Native	<1	0.2
AN-07	Quadrat	Clematis	pubescens			No	Native	2	Cl
AN-07	Quadrat	Conostylis	pusilla			No	Native	<1	0.1
AN-07	Quadrat	Corymbia	calophylla			No	Native	30	15-30
AN-07	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-07	Quadrat	Desmocladus	fasciculatus			No	Native	<1	0.1
AN-07	Quadrat	Dichopogon		cf.	preissii	No	Native	<1	0.3
AN-07	Quadrat	Eucalyptus	marginata			No	Native	30	15-30
AN-07	Quadrat	Haemodorum	laxum			No	Native	<1	1
AN-07	Quadrat	Hibbertia	amplexicaulis			No	Native	1	0.3
AN-07	Quadrat	Hibbertia	commutata			No	Native	0.5	0.2
AN-07	Quadrat	Hovea	chorizemifolia			No	Native	<1	0.2
AN-07	Quadrat	kennedia	prostrata			No	Native	<1	0.1
AN-07	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-07	Quadrat	Lepidosperma	leptostachyum			No	Native	<1	0.5

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-07	Quadrat	Leucopogon	capitellatus			No	Native	4	0.3
AN-07	Quadrat	Leucopogon	verticillatus			No	Native	1	0.5-1
AN-07	Quadrat	Lomandra	caespitosa			No	Native	1	0.2
AN-07	Quadrat	Loxocarya	cinerea			No	Native	<1	0.3
AN-07	Quadrat	Macrozamia	riedlei			No	Native	2	0.5-1
AN-07	Quadrat	Microlaena	stipoides			No	Native	<1	0.3
AN-07	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	1	0.4
AN-07	Quadrat	Opercularia	apiciflora			No	Native	<1	0.3
AN-07	Quadrat	Opercularia	hispidula			No	Native	2	0.4
AN-07	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2
AN-07	Quadrat	Persoonia	longifolia			No	Native	1	<5
AN-07	Quadrat	Pteridium	esculentum			No	Native	10	0.5-2
AN-07	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-07	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-07	Quadrat	Styphelia	pallida			No	Native	<1	0.2
AN-07	Quadrat	Styphelia	propinqua			No	Native	2	0.5-1
AN-07	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-07	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	0.5	0.2
AN-07	Quadrat	Trachymene	pilosa			No	Native	<1	0.1
AN-07	Quadrat	Xanthorrhoea	gracilis			No	Native	<1	1.1
AN-08	Quadrat	*Briza	maxima			No	Introduced	3	<0.5
AN-08	Quadrat	*Centaurium	erythraea			No	Introduced	<1	0.3
AN-08	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-08	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-08	Quadrat	Bossiaea	ornata			No	Native	<1	0.2
AN-08	Quadrat	Clematis	pubescens			No	Native	4	Cl
AN-08	Quadrat	Corymbia	calophylla			No	Native	25	15-30
AN-08	Quadrat	Daucus	glochidiatus			No	Native	0.5	0.2
AN-08	Quadrat	Dichelachne	micrantha			No	Native	<1	0.4
AN-08	Quadrat	Eucalyptus	marginata			No	Native	40	15-30
AN-08	Quadrat	Euchiton	collinus			No	Native	<1	0.2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-08	Quadrat	Hardenbergia	comptoniana			No	Native	<1	Cl
AN-08	Quadrat	Hibbertia	amplexicaulis			No	Native	2	0.3
AN-08	Quadrat	Hibbertia	commutata			No	Native	1	0.2
AN-08	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-08	Quadrat	Leucopogon	capitellatus			No	Native	3	0.3
AN-08	Quadrat	Lysiandra	calycina			No	Native	2	0.3
AN-08	Quadrat	Macrozamia	riedlei			No	Native	1	0.5-1
AN-08	Quadrat	Microlaena	stipoides			No	Native	1	<0.5
AN-08	Quadrat	Opercularia	hispidula			No	Native	1	0.4
AN-08	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2
AN-08	Quadrat	Pteridium	esculentum			No	Native	8	0.5-1
AN-08	Quadrat	Ranunculus	colonorum			No	Native	<1	0.5
AN-08	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-08	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-08	Quadrat	Senecio	multicaulis			No	Native	<1	0.5
AN-08	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	1	0.1
AN-08	Quadrat	Thelymitra		sp.	indet	No	Native	<1	0.3
AN-08	Quadrat	Xanthorrhoea	gracilis			No	Native	1.5	0.5-1
AN-08	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-09	Quadrat	*Avena	barbata			No	Introduced	3	0.8
AN-09	Quadrat	*Briza	maxima			No	Introduced	10	0.3
AN-09	Quadrat	*Briza	minor			No	Introduced	<1	0.1
AN-09	Quadrat	*Bromus	diandrus			No	Introduced	<1	0.3
AN-09	Quadrat	*Bromus	hordeaceus			No	Native	1	0.4
AN-09	Quadrat	*Carduus	pycnocephalus			No	Introduced	1	0.5
AN-09	Opportunistic	*Chasmanthe	floribunda			No	Introduced	-	-
AN-09	Quadrat	*Cynodon	dactylon			No	Introduced	4	0.15
AN-09	Quadrat	*Holcus	lanatus			No	Introduced	18	0.6
AN-09	Opportunistic	*Hordeum	marinum			No	Introduced	-	-
AN-09	Quadrat	*Isolepis	prolifera			No	Native	5	0.3
AN-09	Quadrat	*Lolium	rigidum			No	Introduced	<1	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-09	Quadrat	*Lotus	subbiflorus			No	Introduced	2	0.1
AN-09	Quadrat	*Lysimachia	arvensis			No	Introduced	4	0.1
AN-09	Quadrat	*Lythrum	hyssopifolia			No	Introduced	0.5	0.2
AN-09	Quadrat	*Oxalis	glabra			No	Introduced	0.5	0.1
AN-09	Opportunistic	*Phalaris	aquatica			No	Native	-	-
AN-09	Quadrat	*Pinus	radiata			No	Introduced	20	15-30
AN-09	Quadrat	*Rubus	anglocandicans			No	Introduced	25	1-2
AN-09	Quadrat	*Rumex	conglomeratus			No	Introduced	<1	0.3
AN-09	Quadrat	*Sonchus	asper			No	Introduced	1	0.4
AN-09	Opportunistic	*Stenotaphrum	secundatum			No	Introduced	-	-
AN-09	Opportunistic	*Symphytichum	squamatum			No	Introduced	-	-
AN-09	Quadrat	*Trifolium	subterraneum			No	Introduced	0.5	0.1
AN-09	Quadrat	Astartea	scoparia			No	Native	<1	1
AN-09	Quadrat	Eucalyptus	rudis	subsp.	rudis	No	Native	35	15-30
AN-09	Quadrat	Juncus	pallidus			No	Native	8	1-2
AN-09	Quadrat	Juncus	subsecundus			No	Native	<1	0.4
AN-09	Quadrat	Lobelia	anceps			No	Native	0.5	0.4
AN-09	Quadrat	Taxandria	linearifolia			No	Native	3	>2
AN-09	Quadrat	Triglochin	striata			No	Native	2	0.2
AN-10	Quadrat	*Allium	triquetrum			No	Introduced	0.5	0.4
AN-10	Quadrat	*Avena	barbata			No	Introduced	1	1
AN-10	Quadrat	*Brassica	tournefortii			No	Introduced	1	0.5
AN-10	Quadrat	*Briza	maxima			No	Introduced	2	0.4
AN-10	Quadrat	*Bromus	diandrus			No	Introduced	1	0.5
AN-10	Quadrat	*Chasmanthe	floribunda			No	Introduced	15	1-2
AN-10	Quadrat	*Cynodon	dactylon			No	Introduced	10	0.3
AN-10	Quadrat	*Cyperus	congestus			No	Introduced	1	0.4
AN-10	Quadrat	*Ehrharta	longiflora			No	Introduced	1	0.5
AN-10	Quadrat	*Holcus	lanatus			No	Introduced	3	1
AN-10	Quadrat	*Hordeum	leporinum			No	Introduced	1	0.3
AN-10	Quadrat	*Lolium	rigidum			No	Introduced	2	0.5

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-10	Quadrat	*Lysimachia	arvensis			No	Introduced	0.5	0.2
AN-10	Quadrat	*Lythrum	hyssopifolia			No	Introduced	<1	0.2
AN-10	Quadrat	*Phalaris	aquatica			No	Introduced	10	1.5
AN-10	Quadrat	*Pinus	radiata			No	Introduced	20	15-30
AN-10	Quadrat	*Polypogon	monspeliensis			No	Introduced	<1	0.5
AN-10	Quadrat	*Raphanus	raphanistrum			No	Native	<1	0.5-1
AN-10	Quadrat	*Rubus	anglocandicans			No	Introduced	60	1-2.5
AN-10	Quadrat	*Sonchus	asper			No	Native	1	0.2-1
AN-10	Quadrat	*Sonchus	oleraceus			No	Introduced	<1	0.1
AN-10	Quadrat	Acacia	saligna			No	Native	2	5-15
AN-10	Quadrat	Alternanthera	denticulata			No	Native	1	0.4
AN-10	Quadrat	Astartea	scoparia			No	Native	1	2-3
AN-10	Quadrat	Cynogeton	huegelii			No	Native	0.5	0.5
AN-10	Quadrat	Eucalyptus	rudis	subsp.	rudis	No	Native	35	15-30
AN-10	Quadrat	Lobelia	anceps			No	Native	0.5	0.4
AN-10 opp	Opportunistic	*Gladiolus	undulatus			No	Introduced		
AN-10 oppcoll	Opportunistic	Apium	prostratum	subsp.	prostratum var. prostratum	No	Native		
AN-11	Quadrat	*Phalaris	aquatica			No	Introduced	<1	1
AN-11	Opportunistic	*Plantago	lanceolata			No	Introduced	-	-
AN-11	Quadrat	Acacia	celastrifolia			No	Native	1	1.5-2
AN-11	Quadrat	Acacia	saligna			No	Native	1	2-3
AN-11	Quadrat	Billardiera	fusiformis			No	Native	1	1.5-2
AN-11	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-11	Opportunistic	Chorizandra	enodes			No	Native	-	-
AN-11	Quadrat	Chorizema	cordatum			No	Native	1	1-2
AN-11	Quadrat	Deyeuxia	quadriseta			No	Native	<1	0.5
AN-11	Quadrat	Eucalyptus	rudis	subsp.	rudis	No	Native	10	15-30
AN-11	Quadrat	Hakea	varia			No	Native	0.5	1.5-2
AN-11	Quadrat	Juncus	holoschoenus			No	Introduced	3	1
AN-11	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-11	Quadrat	Leptocarpus	depilatus			No	Native	5	1
AN-11	Quadrat	Leucopogon	verticillatus			No	Native	1	0.5-1
AN-11	Quadrat	Lobelia	anceps			No	Native	<1	0.2
AN-11	Quadrat	Machaerina	rubiginosa			No	Native	10	0.5-1.5
AN-11	Quadrat	Ornduffia	parnassifolia			No	Native	0.5	0.3-0.5
AN-11	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-11	Quadrat	Stylium	spathulatum			No	Native	<1	0.2
AN-11	Quadrat	Taxandria	linearifolia			No	Native	70	>2
AN-11 oppcoll	Opportunistic	Goodenia	pusilla			No	Native		
AN-12	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.2
AN-12	Quadrat	*Briza	maxima			No	Introduced	<1	0.4
AN-12	Quadrat	*Vulpia	bromoides			No	Introduced	<1	0.2
AN-12	Quadrat	Acacia	browniana	var.	endlicheri	No	Native	<1	1.3
AN-12	Quadrat	Acacia	celastrifolia			No	Native	5	1.5-2
AN-12	Quadrat	Acacia	pulchella			No	Native	5	0.5-1
AN-12	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-12	Quadrat	Billardiera	fusiformis			No	Native	<1	1
AN-12	Quadrat	Conostylis	aculeata	subsp.	aculeata	No	Native	0.5	0.3
AN-12	Quadrat	Corymbia	calophylla			No	Native	4	10-25
AN-12	Quadrat	Dampiera	alata			No	Native	4	0.2
AN-12	Quadrat	Eucalyptus	patens			No	Native	14	10-20
AN-12	Quadrat	Eucalyptus	rudis	subsp.	rudis	No	Native	15	10-25
AN-12	Quadrat	Gastrolobium	bilobum			No	Native	4	>2
AN-12	Quadrat	Gastrolobium	spinosum			No	Native	3	>2
AN-12	Quadrat	Hakea	prostrata			No	Native	5	>2
AN-12	Quadrat	Hypocalymma	angustifolium			No	Native	35	0.5-1
AN-12	Quadrat	Hypolaena	exsulca			No	Native	<1	0.3
AN-12	Opportunistic	Lepidosperma	effusum			No	Native	-	-
AN-12	Quadrat	Microlaena	stipoides			No	Native	<1	0.5
AN-12	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	5	<0.5
AN-12	Quadrat	Opercularia	apiciflora			No	Native	<1	0.2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-12	Quadrat	Patersonia	occidentalis			No	Native	0.5	0.3
AN-12	Quadrat	Senecio	multicaulis			No	Native	<1	0.5
AN-12	Quadrat	Styphelia	discolor			No	Native	<1	0.1
AN-12	Quadrat	Styphelia	propinqua			No	Native	1	0.5
AN-12	Quadrat	Taxandria	linearifolia			No	Native	0.5	2
AN-13	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.1
AN-13	Quadrat	*Briza	maxima			No	Introduced	2	0.3
AN-13	Quadrat	*Briza	minor			No	Introduced	<1	0.1
AN-13	Quadrat	Acacia	celastrifolia			No	Native	1	1-2
AN-13	Quadrat	Acacia	extensa			No	Native	1	1-2
AN-13	Quadrat	Acacia	pulchella			No	Native	1	0.5-1.5
AN-13	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-13	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-13	Quadrat	Billardiera	variifolia			No	Native	<1	Cl
AN-13	Quadrat	Bossiaea	linophylla			No	Native	2	1-3
AN-13	Quadrat	Bossiaea	ornata			No	Native	1	0.3
AN-13	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-13	Quadrat	Clematis	pubescens			No	Native		Cl
AN-13	Quadrat	Corymbia	calophylla			No	Native	25	15-30
AN-13	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-13	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5
AN-13	Quadrat	Diuris		sp.	indet	No	Native	<1	0.3
AN-13	Quadrat	Eucalyptus	marginata			No	Native	45	15-30
AN-13	Quadrat	Haemodorum	laxum			No	Native	<1	0.4
AN-13	Quadrat	Hibbertia	amplexicaulis			No	Native	2	0.3
AN-13	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-13	Quadrat	Hibbertia	hypericoides			No	Native	25	0.3
AN-13	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-13	Quadrat	Leucopogon	capitellatus			No	Native	20	0.3
AN-13	Quadrat	Leucopogon	verticillatus			No	Native	<1	0.5-1
AN-13	Quadrat	Macrozamia	riedlei			No	Native	0.5	1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-13	Quadrat	Opercularia	hispidula			No	Native	2	0.3
AN-13	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-13	Quadrat	Patersonia	babianoides			No	Native	<1	0.2
AN-13	Quadrat	Pentapeltis	silvatica			No	Native	<1	0.1
AN-13	Quadrat	Persoonia	longifolia			No	Native	0.5	1-3
AN-13	Quadrat	Podolepis	gracilis			No	Native	<1	0.3
AN-13	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-13	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-13	Quadrat	Styliodium	amoenum			No	Native	<1	0.2
AN-13	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	<1	0.2
AN-13	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-13	Quadrat	Xanthosia	huegelii			No	Native	<1	0.1
AN-14	Quadrat	*Briza	maxima			No	Introduced	2	0.5
AN-14	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-14	Quadrat	Acacia	browniana	var.	endlicheri	No	Native	<1	0.6
AN-14	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-14	Quadrat	Bossiaea	linophylla			No	Native	1	0.5-1.5
AN-14	Quadrat	Bossiaea	ornata			No	Native	2	0.3
AN-14	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-14	Quadrat	Clematis	pubescens			No	Native	2	Cl
AN-14	Quadrat	Corymbia	calophylla			No	Native	30	15-30
AN-14	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-14	Quadrat	Deyeuxia	quadriseta			No	Introduced	<1	0.4
AN-14	Quadrat	Dichelachne	micrantha			No	Native	<1	0.4
AN-14	Quadrat	Eucalyptus	marginata			No	Native	30	15-30
AN-14	Quadrat	Euchiton	collinus			No	Native	<1	0.2
AN-14	Quadrat	Hakea	amplexicaulis			No	Native	0.5	0.5-1
AN-14	Quadrat	Hibbertia	amplexicaulis			No	Native	2	0.4
AN-14	Quadrat	Hibbertia	commutata			No	Native	2	0.3
AN-14	Quadrat	Labichea	punctata			No	Native	<1	0.1
AN-14	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-14	Quadrat	Leucopogon	capitellatus			No	Native	20	0.3
AN-14	Quadrat	Macrozamia	riedlei			No	Native	1	0.5-1
AN-14	Quadrat	Opercularia	apiciflora			No	Native	<1	0.3
AN-14	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-14	Quadrat	Pteridium	esculentum			No	Native	5	0.5-2
AN-14	Quadrat	Ranunculus	colonorum			No	Native	0.5	0.5
AN-14	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.4
AN-14	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-14	Quadrat	Senecio	multicaulis			No	Native	<1	0.5
AN-14	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-14	Quadrat	Tremandra	diffusa			No	Native	0.5	0.1
AN-14	Quadrat	Trichocline	spathulata			No	Native	<1	0.3
AN-14	Quadrat	Xanthosia	candida			No	Native	0.5	0.1
AN-15	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.2
AN-15	Quadrat	*Briza	maxima			No	Introduced	2	0.4
AN-15	Quadrat	*Briza	minor			No	Introduced	<1	0.2
AN-15	Quadrat	*Disa	bracteata			No	Introduced	<1	0.2
AN-15	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.3
AN-15	Quadrat	*Tolpis	virgata			No	Introduced	1	0.5
AN-15	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-15	Quadrat	Bossiaea	ornata			No	Native	2	0.3
AN-15	Quadrat	Clematis	pubescens			No	Native	3	Cl
AN-15	Quadrat	Corymbia	calophylla			No	Native	35	15-30
AN-15	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-15	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-15	Quadrat	Hardenbergia	comptoniana			No	Native	<1	Cl
AN-15	Quadrat	Hibbertia	amplexicaulis			No	Native	2	0.4
AN-15	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-15	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-15	Quadrat	Leucopogon	capitellatus			No	Native	6	0.3
AN-15	Quadrat	Leucopogon	verticillatus			No	Native	1	0.5-1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-15	Quadrat	Macrozamia	riedlei			No	Native	1	0.5-1
AN-15	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-15	Quadrat	Persoonia	longifolia			No	Native	1	2-4
AN-15	Quadrat	Podolepis	gracilis			No	Native	<1	0.2
AN-15	Quadrat	Pteridium	esculentum			No	Native	10	1-2
AN-15	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.4
AN-15	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-15	Quadrat	Styphelia	propinqua			No	Native	1	0.5-1
AN-15	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-15	Quadrat	Tetratheca	hispidissima			No	Native	2	0.6
AN-15	Quadrat	Thelymitra		sp.	indet	No	Native	<1	0.3
AN-16	Quadrat	*Briza	maxima			No	Introduced	0.5	0.3
AN-16	Quadrat	*Disa	bracteata			No	Introduced	<1	0.2
AN-16	Quadrat	*Tolpis	virgata			No	Introduced	<1	0.5
AN-16	Quadrat	Acacia	pulchella			No	Native	1	0.5-1
AN-16	Quadrat	Bossiaea	linophylla			No	Native	35	>2
AN-16	Quadrat	Clematis	pubescens			No	Native	3	Cl
AN-16	Quadrat	Corymbia	calophylla			No	Native	40	15-30
AN-16	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-16	Quadrat	Dichelachne	micrantha			No	Native	<1	1
AN-16	Quadrat	Eucalyptus	marginata			No	Native	27	15-30
AN-16	Quadrat	Euchiton	collinus			No	Native	<1	0.5
AN-16	Quadrat	Hardenbergia	comptoniana			No	Native	1	Cl
AN-16	Quadrat	Hibbertia	amplexicaulis			No	Native	2.5	0.4
AN-16	Quadrat	Hibbertia	commutata			No	Native	3	0.2
AN-16	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-16	Quadrat	Leucopogon	capitellatus			No	Native	1.5	0.3
AN-16	Quadrat	Leucopogon	verticillatus			No	Native	1	1
AN-16	Quadrat	Macrozamia	riedlei			No	Native	1	1
AN-16	Quadrat	Opercularia	hispidula			No	Native	2	0.4
AN-16	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-16	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-16	Quadrat	Patersonia	babianoides			No	Native	<1	0.2
AN-16	Quadrat	Pteridium	esculentum			No	Native	15	1-1.5
AN-16	Quadrat	Ranunculus	colonorum			No	Native	0.5	0.5
AN-16	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.4
AN-16	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-16	Quadrat	Styphelia	propinqua			No	Native	1	0.5-1
AN-16	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-16	Quadrat	Tetratheca	hispidissima			No	Native	1.5	0.5
AN-16	Quadrat	Veronica	calycina			No	Introduced	<1	0.1
AN-17	Quadrat	*Briza	maxima			No	Introduced	1	0.2
AN-17	Quadrat	Bossiaeae	linophylla			No	Native	12	2-3
AN-17	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	CI
AN-17	Quadrat	Clematis	pubescens			No	Native	3	CI
AN-17	Quadrat	Corymbia	calophylla			No	Native	35	15-30
AN-17	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-17	Quadrat	Hakea	amplexicaulis			No	Native	<1	1.5
AN-17	Quadrat	Hibbertia	amplexicaulis			No	Native	2	0.4
AN-17	Quadrat	Hibbertia	commutata			No	Native	1	0.2
AN-17	Quadrat	Hibbertia	hypericoides			No	Native	2	0.4
AN-17	Quadrat	Kennedia	prostrata			No	Native	<1	0.1
AN-17	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-17	Quadrat	Leucopogon	capitellatus			No	Native	5	0.3
AN-17	Quadrat	Leucopogon	verticillatus			No	Native	1	0.5-1
AN-17	Quadrat	Macrozamia	riedlei			No	Native	1	0.5-1
AN-17	Quadrat	Opercularia	hispidula			No	Native	3	0.4
AN-17	Quadrat	Persoonia	longifolia			No	Native	<1	1
AN-17	Quadrat	Pteridium	esculentum			No	Native	10	1-2
AN-17	Quadrat	Styphelia	propinqua			No	Native	<1	0.3
AN-17	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-17	Quadrat	Tetratheca	hispidissima			No	Native	1	0.5
AN-17	Quadrat	Xanthorrhoea	gracilis			No	Native	0.5	1
AN-18	Quadrat	*Briza	maxima			No	Introduced	6	0.3
AN-18	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.1
AN-18	Quadrat	*Lolium	rigidum			No	Introduced	<1	0.3
AN-18	Quadrat	*Orobanche	minor			No	Introduced	<1	0.1
AN-18	Quadrat	*Tolpis	virgata			No	Introduced	<1	.3
AN-18	Quadrat	Acacia	pulchella			No	Native	<1	1
AN-18	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-18	Quadrat	Bossiaea	linophylla			No	Native	<1	0.5-3
AN-18	Quadrat	Caesia	micrantha			No	Native	<1	0.2
AN-18	Quadrat	Clematis	pubescens			No	Native	1	Cl
AN-18	Quadrat	Conostylis	pusilla			No	Native	<1	0.1
AN-18	Quadrat	Corymbia	calophylla			No	Native	35	15-30
AN-18	Quadrat	Dampiera	linearis			No	Native	2	0.2
AN-18	Quadrat	Daucus	glochidiatus			No	Native	<1	0.1
AN-18	Quadrat	Desmocladus	fasciculatus			No	Native	3	0.1
AN-18	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-18	Quadrat	Hakea	lissocarpha			No	Native	<1	0.5-1
AN-18	Quadrat	Hibbertia	amplexicaulis			No	Native	1.5	0.3
AN-18	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-18	Quadrat	Hovea	chorizemifolia			No	Native	<1	0.2
AN-18	Quadrat	Hypolaena	exsulca			No	Native	1	0.3
AN-18	Quadrat	Labichea	punctata			No	Native	<1	0.1
AN-18	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-18	Quadrat	Leucopogon	capitellatus			No	Native	1	0.3
AN-18	Quadrat	Lomandra	sericea			No	Native	<1	0.3
AN-18	Quadrat	Macrozamia	riedlei			No	Native	8	0.5-1
AN-18	Quadrat	Microlaena	stipoides			No	Native	1	0.3
AN-18	Quadrat	Monotaxis	occidentalis			No	Native	<1	0.1
AN-18	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	0.5	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-18	Quadrat	Persoonia	longifolia			No	Native	2	<5
AN-18	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-18	Quadrat	Stackhousia	huegelii			No	Native	<1	0.3
AN-18	Quadrat	Styphelia	discolor			No	Native	<1	0.1
AN-18	Quadrat	Styphelia	propinquua			No	Native	2	0.5-1
AN-18	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.2
AN-18	Quadrat	Trachymene	pilosa			No	Native	<1	0.1
AN-18	Quadrat	Xanthosia	candida			No	Native	1	0.1
AN-19	Quadrat	*Aira	cupaniana			No	Introduced	1	0.1
AN-19	Quadrat	*Briza	maxima			No	Introduced	7	0.3
AN-19	Quadrat	*Centaurium	erythraea			No	Introduced	<1	0.5
AN-19	Quadrat	*Lysimachia	arvensis			No	Introduced	<1	0.1
AN-19	Quadrat	*Pinus	radiata			No	Introduced	<1	5
AN-19	Quadrat	*Tolpis	virgata			No	Introduced	<1	0.5
AN-19	Quadrat	*Vulpia	bromoides			No	Introduced	1	0.1
AN-19	Quadrat	Banksia	grandis			No	Native	20	<5
AN-19	Quadrat	Billardiera	fusiformis			No	Native	1	1-2
AN-19	Quadrat	Bossiaea	linophylla			No	Native	1.5	2-4
AN-19	Quadrat	Clematis	pubescens			No	Native	4	Cl
AN-19	Quadrat	Corymbia	calophylla			No	Native	25	15-30
AN-19	Quadrat	Daucus	glochidiatus			No	Native	0.5	0.2
AN-19	Quadrat	Eucalyptus	marginata			No	Native	30	15-30
AN-19	Quadrat	Haemodorum	laxum			No	Native	<1	1
AN-19	Quadrat	Hardenbergia	comptoniana			No	Native	<1	Cl
AN-19	Quadrat	Hibbertia	commutata			No	Native	0.2	1
AN-19	Quadrat	Lagenophora	huegelii			No	Native	0.5	0.1
AN-19	Quadrat	Leucopogon	capitellatus			No	Native	2	0.2
AN-19	Quadrat	Leucopogon	verticillatus			No	Native	0.5	1
AN-19	Quadrat	Lysiandra	calycina			No	Native	10	0.3
AN-19	Quadrat	Macrozamia	riedlei			No	Native	3	0.3
AN-19	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	1	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-19	Quadrat	Opercularia	hispidula			No	Native	2	0.5
AN-19	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-19	Quadrat	Persoonia	longifolia			No	Native	2	0.5-1
AN-19	Quadrat	Pteridium	esculentum			No	Native	10	0.5-1
AN-19	Quadrat	Ptilotus	manglesii			No	Native	<1	0.1
AN-19	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-19	Quadrat	Veronica	calycina			No	Introduced	<1	0.1
AN-19	Quadrat	Xanthorrhoea	gracilis			No	Native	1	0.5-1
AN-19 opp	Opportunistic	*Acacia	dealbata			No	Introduced		
AN-20	Quadrat	*Briza	maxima			No	Introduced	3	0.3
AN-20	Quadrat	*Centaurium	erythraea			No	Introduced	0.5	0.5
AN-20	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.1
AN-20	Quadrat	Acacia	pulchella			No	Native	0.5	1
AN-20	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-20	Quadrat	Anthosachne	scabra			No	Native	<1	0.4
AN-20	Quadrat	Clematis	pubescens			No	Native	2	Cl
AN-20	Quadrat	Corymbia	calophylla			No	Native	3	15-30
AN-20	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-20	Quadrat	Dichelachne	micrantha			No	Native	<1	0.3
AN-20	Quadrat	Diuris		sp.	indet	No	Native	<1	0.4
AN-20	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-20	Quadrat	Euchiton	collinus			No	Native	<1	0.1
AN-20	Quadrat	Hibbertia	amplexicaulis			No	Native	2	<0.5
AN-20	Quadrat	Hibbertia	commutata			No	Native	1	0.2
AN-20	Quadrat	Lagenophora	huegelii			No	Native	0.5	0.1
AN-20	Quadrat	Leucopogon	capitellatus			No	Native	3	<0.5
AN-20	Quadrat	Linum	marginale			No	Native	<1	0.4
AN-20	Quadrat	Lysiandra	calycina			No	Native	3	<0.5
AN-20	Quadrat	Macrozamia	riedlei			No	Native	2.5	0.5-1
AN-20	Quadrat	Persoonia	longifolia			No	Native	<1	0.5-1.5
AN-20	Quadrat	Pimelea	ciliata			No	Native	0.5	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-20	Quadrat	Pteridium	esculentum			No	Native	40	0.5-1
AN-20	Quadrat	Ranunculus	colonorum			No	Native	<1	0.5
AN-20	Quadrat	Styphelia	propinqua			No	Native	1	0.5-1
AN-20	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	1.5	0.3
AN-20	Quadrat	Veronica	calycina			No	Introduced	<1	0.1
AN-20	Quadrat	Wahlenbergia	capillaris			No	Native	<1	0.4
AN-20	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-21	Quadrat	*Asparagus	asparagoides			No	Introduced	<1	0.2
AN-21	Quadrat	*Avena	barbata			No	Introduced	<1	0.5
AN-21	Quadrat	*Briza	maxima			No	Introduced	7	0.2
AN-21	Quadrat	*Briza	minor			No	Introduced	<1	0.2
AN-21	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-21	Quadrat	*Lotus	subbiflorus			No	Introduced	<1	0.1
AN-21	Quadrat	*Lysimachia	arvensis			No	Introduced	0.5	0.1
AN-21	Quadrat	*Oxalis	glabra			No	Introduced	<1	0.1
AN-21	Opportunistic	*Vinca	major			No	Introduced	-	-
AN-21	Opportunistic	Acacia	dentifera			No	Native	-	-
AN-21	Quadrat	Anthosachne	scabra			No	Native	<1	0.5
AN-21	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	2	0.1
AN-21	Quadrat	Caesia	micrantha			No	Native	<1	0.2
AN-21	Quadrat	Clematis	pubescens			No	Native	<1	Cl
AN-21	Quadrat	Conostylis	aculeata	subsp.	aculeata	No	Native	<1	0.2
AN-21	Quadrat	Corymbia	calophylla			No	Native	40	15-30
AN-21	Quadrat	Cyathochaeta	avenacea			No	Native	2	0.3
AN-21	Quadrat	Daucus	glochidiatus			No	Native	<1	0.3
AN-21	Quadrat	Desmocladus	fasciculatus			No	Native	15	0.15
AN-21	Quadrat	Deyeuxia	quadriseta			No	Native	<1	0.5
AN-21	Quadrat	Eucalyptus	patens			No	Native	30	15-30
AN-21	Quadrat	Hakea	lissocarpa			No	Native	<1	0.5
AN-21	Quadrat	Hibbertia	commutata			No	Native	1	0.2
AN-21	Quadrat	Hypolaena	exsulca			No	Native	0.5	0.2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-21	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-21	Quadrat	Leucopogon	capitellatus			No	Native	2	0.2
AN-21	Quadrat	Leucopogon	verticillatus			No	Native	0.5	0.5
AN-21	Quadrat	Lysiandra	calycina			No	Native	3	0.3
AN-21	Quadrat	Macrozamia	riedlei			No	Native	<1	0.5-1
AN-21	Quadrat	Microlaena	stipoides			No	Native	0.5	0.4
AN-21	Quadrat	Morelotia	octandra			No	Native	1	0.3
AN-21	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	0.5	0.4
AN-21	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-21	Quadrat	Patersonia	occidentalis			No	Native	2	0.3
AN-21	Opportunistic	Ptilotus	manglesii			No	Native	-	-
AN-21	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-21	Quadrat	Styphelia	discolor			No	Native	0.5	0.1
AN-21	Quadrat	Styphelia	propinqua			No	Native	2	0.5-1
AN-21	Quadrat	Tremandra	diffusa			No	Native	3	0.5
AN-22	Quadrat	*Avena	barbata			No	Introduced	2	1
AN-22	Quadrat	*Briza	maxima			No	Introduced	4	0.35
AN-22	Opportunistic	*Chasmanthe	floribunda			No	Introduced	-	-
AN-22	Quadrat	*Hypochaeris	glabra			No	Native	<1	0.2
AN-22	Quadrat	*Petrorrhagia	dubia			No	Introduced	<1	0.2
AN-22	Quadrat	*Romulea	rosea			No	Introduced	<1	0.2
AN-22	Quadrat	Acacia	nervosa			No	Native	0.5	0.3
AN-22	Quadrat	Acacia	pulchella			No	Native	3	1.5-2
AN-22	Quadrat	Austrostipa	campylachne			No	Native	<1	0.5-1
AN-22	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	3	0.2
AN-22	Quadrat	Burchardia	congesta			No	Native	<1	0.5
AN-22	Quadrat	Caesia	micrantha			No	Native	<1	0.3
AN-22	Quadrat	Conostylis	aculeata	subsp.	preissii	No	Native	1	0.25
AN-22	Quadrat	Corymbia	calophylla			No	Native	10	3-25
AN-22	Quadrat	Daviesia	decurrens	subsp.	decurrens	No	Native	1	0.75
AN-22	Quadrat	Eucalyptus	patens			No	Native	10	3-25

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-22	Quadrat	Haemodorum	laxum			No	Native	<1	0.8
AN-22	Quadrat	Hakea	lissocarpa			No	Native	3	1.5-2
AN-22	Quadrat	Hemigenia	incana			No	Native	7	0.5-1.5
AN-22	Quadrat	Hypocalymma	angustifolium			No	Native	20	0.5-1
AN-22	Quadrat	Jacksonia	horrida			No	Native	0.5	0.5-1
AN-22	Quadrat	Kennedia	prostrata			No	Native	<1	0.1
AN-22	Quadrat	Labichea	punctata			No	Native	<1	0.1
AN-22	Quadrat	Lepidosperma	leptostachyum			No	Native	1	0.5
AN-22	Quadrat	Lysiandra	calycina			No	Native	2	0.3
AN-22	Quadrat	Morelotia	octandra			No	Native	5	0.5
AN-22	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	5	0.5
AN-22	Quadrat	Neurachne	alopecuroidae			No	Native	<1	0.3
AN-22	Quadrat	Patersonia	occidentalis			No	Native	1	0.6
AN-22	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-22	Quadrat	Senecio	quadridentatus			No	Native	<1	1
AN-22	Quadrat	Styliodium	affine			No	Native	4	0.5
AN-22	Quadrat	Stypandra	glaucha			No	Native	4	0.2
AN-22	Quadrat	Styphelia	pallida			No	Native	1	0.1
AN-22	Quadrat	Tricoryne	humilis			No	Native	<1	0.4
AN-22	Quadrat	Xanthorrhoea	preissii			No	Native	0.5	1
AN-23	Quadrat	*Avena	barbata			No	Introduced	3	0.5-1
AN-23	Quadrat	*Briza	maxima			No	Introduced	10	0.4
AN-23	Quadrat	*Briza	minor			No	Introduced	<1	0.1
AN-23	Quadrat	*Hypochaeris	glabra			No	Introduced	0.5	0.2
AN-23	Quadrat	*Pinus	radiata			No	Introduced	4	2-1.5
AN-23	Quadrat	*Rubus	anglocandicans			No	Introduced	2	0.5-1.5
AN-23	Quadrat	*Vulpia	bromoides			No	Introduced	2	0.2
AN-23	Quadrat	Acacia	nervosa			No	Native	0.5	0.4
AN-23	Quadrat	Acacia	pulchella			No	Native	2	1-2
AN-23	Quadrat	Austrostipa	campylachne			No	Native	1	1-1.5
AN-23	Quadrat	Billardiera	fusiformis			No	Native	2	1-1.5

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-23	Quadrat	Bossiaea	ornata			No	Native	1	0.4
AN-23	Quadrat	Burchardia	congesta			No	Native	<1	0.5
AN-23	Opportunistic	Cheilanthes	austrotenuifolia			No	Native	-	-
AN-23	Quadrat	Conostylis	aculeata	subsp.	preissii	No	Native	0.5	0.3
AN-23	Quadrat	Corymbia	calophylla			No	Native	10	3-10
AN-23	Quadrat	Eucalyptus	marginata			No	Native	10	3-10
AN-23	Quadrat	Eucalyptus	patens			No	Native	5	2-8
AN-23	Quadrat	Haemodorum	laxum			No	Native	<1	1
AN-23	Quadrat	Hakea	lissocarpha			No	Native	3	1-2
AN-23	Quadrat	Hemigenia	incana			No	Native	6	0.5-1.5
AN-23	Quadrat	Hibbertia	commutata			No	Native	3	0.3
AN-23	Quadrat	Kennedia	coccinea			No	Native	<1	0.1
AN-23	Quadrat	Lepidosperma	leptostachyum			No	Native	3	0.5
AN-23	Quadrat	Leucopogon	capitellatus			No	Native	1	0.5
AN-23	Quadrat	Lomandra	pauciflora			No	Native	0.5	0.2
AN-23	Quadrat	Macrozamia	riedlei			No	Native	0.5	0.5
AN-23	Quadrat	Microlaena	stipoides			No	Native	<1	0.3
AN-23	Quadrat	Morelotia	octandra			No	Native	1	0.4
AN-23	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	3	0.5
AN-23	Quadrat	Opercularia	hispidula			No	Native	5	0.5
AN-23	Quadrat	Oxalis	perennans			No	Introduced	0.5	0.1
AN-23	Quadrat	Persoonia	longifolia			No	Native	<1	1-3
AN-23	Quadrat	Rytidosperma	pilosum			No	Native	0.5	0.4
AN-23	Quadrat	Stylium	affine			No	Native	4	0.5
AN-23	Quadrat	Tricoryne	humilis			No	Native	<1	0.1
AN-23	Quadrat	Xanthorrhoea	preissii			No	Native	3	1-2
AN-23 oppcoll	Opportunistic	*Oxalis	incarnata			No	Introduced		
AN-24	Quadrat	*Asparagus	asparagoides			No	Introduced	<1	0.2
AN-24	Quadrat	*Avena	barbata			No	Introduced	20	0.5-1
AN-24	Quadrat	*Briza	maxima			No	Introduced	15	0.5
AN-24	Quadrat	*Bromus	diandrus			No	Introduced	2	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-24	Quadrat	*Bromus	hordeaceus			No	Native	3	0.4
AN-24	Quadrat	*Carduus	pycnocephalus			No	Introduced	1	1
AN-24	Quadrat	*Cynodon	dactylon			No	Introduced	2	0.2
AN-24	Quadrat	*Cynosurus	echinatus			No	Introduced	<1	0.4
AN-24	Quadrat	*Ehrharta	longiflora			No	Introduced	1	0.4
AN-24	Quadrat	*Holcus	lanatus			No	Introduced	5	0.5-1
AN-24	Quadrat	*Hypericum	perforatum			No	Native	<1	0.5
AN-24	Quadrat	*Hypochaeris	glabra			No	Introduced	2	0.3
AN-24	Quadrat	*Isolepis	prolifera			No	Introduced	5	<0.5
AN-24	Quadrat	*Lysimachia	arvensis			No	Introduced	0.5	0.2
AN-24	Quadrat	*Lythrum	hyssopifolia			No	Introduced	<1	0.2
AN-24	Quadrat	*Olea	europaea			No	Introduced	<1	0.5
AN-24	Quadrat	*Pinus	radiata			No	Introduced	20	15-30
AN-24	Quadrat	*Rorippa	nasturtium-aquaticum			No	Native	2	0.1
AN-24	Quadrat	*Rubus	anglocandicans			No	Introduced	<1	0.3
AN-24	Quadrat	*Sonchus	asper			No	Introduced	1	0.5-1
AN-24	Quadrat	*Trifolium	ligusticum			No	Introduced	<1	0.1
AN-24	Quadrat	*Trifolium	subterraneum			No	Introduced	0.5	0.1
AN-24	Quadrat	Acacia	pulchella			No	Native	0.5	1-2
AN-24	Quadrat	Corymbia	calophylla			No	Native	5	15-30
AN-24	Quadrat	Eucalyptus	rudis	subsp.	rudis	No	Native	35	15-30
AN-24	Quadrat	Isolepis	cernua	var.	setifolia	No	Native	<1	0.1
AN-24	Quadrat	Juncus	pallidus			No	Native	3	1-2
AN-24	Quadrat	Lobelia	anceps			No	Native	<1	0.4
AN-24	Quadrat	Microlaena	stipoides			No	Native	4	0.4
AN-24	Quadrat	Oxalis	perennans			No	Introduced	0.5	0.1
AN-24	Quadrat	Pteridium	esculentum			No	Native	1.5	1-2
AN-24	Quadrat	Taxandria	linearifolia			No	Native	3	>2
AN-24 oppcoll	Quadrat	Isolepis	cernua	var.	cernua	No	Native		
AN-25	Quadrat	*Asparagus	asparagoides			No	Introduced	<1	0.2
AN-25	Quadrat	*Avena	barbata			No	Introduced	1	1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-25	Quadrat	*Briza	maxima			No	Introduced	5	0.4
AN-25	Quadrat	*Bromus	diandrus			No	Introduced	5	0.5
AN-25	Quadrat	*Cynosurus	echinatus			No	Introduced	<1	0.3
AN-25	Quadrat	*Ehrharta	longifolia			No	Introduced	1	0.5
AN-25	Quadrat	*Lysimachia	arvensis			No	Introduced	<1	0.1
AN-25	Quadrat	*Orobanche	minor			No	Introduced	<1	0.1
AN-25	Quadrat	*Pinus	radiata			No	Introduced	40	15-30
AN-25	Quadrat	*Rubus	anglocandicans			No	Introduced	15	1.5-2
AN-25	Quadrat	*Sonchus	oleraceus			No	Introduced	<1	0.2
AN-25	Quadrat	Corymbia	calophylla			No	Native	5	15-30
AN-25	Quadrat	Eucalyptus	patens			No	Native	20	15-30
AN-25	Quadrat	Geranium	solanderi			No	Native	<1	0.2
AN-25	Quadrat	Hakea	lissocarpa			No	Native	0.5	1-2
AN-25	Quadrat	Morelotia	octandra			No	Native	2	0.4
AN-25	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	5	0.5
AN-25	Quadrat	Opercularia	hispidula			No	Native	0.5	0.5
AN-25	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-25	Quadrat	Poa	porphyrocladus			No	Native	1.5	0.6
AN-25	Quadrat	Stypandra	glauca			No	Native	6	0.4
AN-25	Quadrat	Xanthorrhoea	preissii			No	Native	3	1.5-2
AN-26	Quadrat	*Briza	maxima			No	Introduced	2	0.3
AN-26	Quadrat	*Tolpis	virgata			No	Introduced	<1	0.4
AN-26	Quadrat	Acacia	pulchella			No	Native	1.5	0.5-1
AN-26	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-26	Quadrat	Agrostocrinum	hirsutum			No	Native	<1	0.5
AN-26	Quadrat	Bossiaea	ornata			No	Native	12	<0.5
AN-26	Quadrat	Burchardia	congesta			No	Native	<1	0.5
AN-26	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-26	Quadrat	Chamaescilla	corymbosa			No	Native	<1	0.1
AN-26	Quadrat	Clematis	pubescens			No	Native	5	Cl
AN-26	Quadrat	Corymbia	calophylla			No	Native	35	15-30

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-26	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-26	Quadrat	Dichelachne	micrantha			No	Native	<1	0.3
AN-26	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-26	Quadrat	Goodenia	eatoniana			No	Native	0.5	0.2
AN-26	Quadrat	Haemodorum	laxum			No	Native	<1	0.5
AN-26	Quadrat	Hibbertia	amplexicaulis			No	Native	3	0.4
AN-26	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-26	Quadrat	Labichea	punctata			No	Native	<1	0.1
AN-26	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-26	Quadrat	Leucopogon	capitellatus			No	Native	12	<0.5
AN-26	Quadrat	Leucopogon	verticillatus			No	Native	1	0.5-1
AN-26	Quadrat	Lomandra	caespitosa			No	Native	<1	0.2
AN-26	Quadrat	Lomandra	hermaphrodita			No	Native	<1	0.1
AN-26	Quadrat	Macrozamia	riedlei			No	Native	3	0.5-1
AN-26	Quadrat	Microlaena	stipoides			No	Native	<1	0.4
AN-26	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	1	0.4
AN-26	Quadrat	Opercularia	apiciflora			No	Native	0.5	0.4
AN-26	Quadrat	Opercularia	hispidula			No	Native	3	<0.5
AN-26	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.15
AN-26	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-26	Quadrat	Pentapeltis	silvatica			No	Native	<1	0.1
AN-26	Quadrat	Persoonia	longifolia			No	Native	1	<5
AN-26	Quadrat	Pteridium	esculentum			No	Native	5	0.5-1
AN-26	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-26	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-26	Quadrat	Styphelia	propinqua			No	Native	0.5	0.6
AN-26	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-26	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	0.5	0.2
AN-26	Quadrat	Xanthorrhoea	gracilis			No	Native	2	0.5-1
AN-27	Quadrat	*Briza	maxima			No	Introduced	0.5	0.3
AN-27	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-27	Quadrat	Banksia	grandis			No	Native	1.5	<5
AN-27	Quadrat	Bossiaea	linophylla			No	Native	55	>2
AN-27	Quadrat	Bossiaea	ornata			No	Native	2	<0.5
AN-27	Quadrat	Clematis	pubescens			No	Native	3	Cl
AN-27	Quadrat	Corymbia	calophylla			No	Native	30	15-30
AN-27	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-27	Quadrat	Dichelachne	micrantha			No	Native	<1	0.6
AN-27	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-27	Quadrat	Hibbertia	amplexicaulis			No	Native	0.5	0.35
AN-27	Quadrat	Hibbertia	commutata			No	Native	1	0.2
AN-27	Quadrat	Hibbertia	hypericoides			No	Native	7	<0.5
AN-27	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-27	Quadrat	Lepidosperma	leptostachyum			No	Native	1	0.5
AN-27	Quadrat	Leucopogon	capitellatus			No	Native	7	<0.5
AN-27	Quadrat	Leucopogon	verticillatus			No	Native	<1	0.5
AN-27	Quadrat	Lomandra	caespitosa			No	Native	<1	0.2
AN-27	Quadrat	Macrozamia	riedlei			No	Native	3	0.5-1
AN-27	Quadrat	Microlaena	stipoides			No	Native	<1	0.4
AN-27	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	<1	0.4
AN-27	Quadrat	Opercularia	hispidula			No	Native	0.5	0.4
AN-27	Quadrat	Oxalis	perennans			No	Introduced	0.5	0.1
AN-27	Quadrat	Pentapeltis	silvatica			No	Native	<1	0.1
AN-27	Quadrat	Persoonia	longifolia			No	Native	1	<5
AN-27	Quadrat	Podolepis	gracilis			No	Native	<1	0.2
AN-27	Quadrat	Pteridium	esculentum			No	Native	4	0.5-1
AN-27	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-27	Quadrat	Scaevola	calliptera			No	Native	<1	0.1
AN-27	Quadrat	Styphelia	propinqua			No	Native	0.5	0.5
AN-27	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	<1	0.2
AN-27	Quadrat	Thelymitra		sp.	indet	No	Native	<1	0.4
AN-28	Quadrat	*Briza	maxima			No	Introduced	0.5	0.3

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-28	Quadrat	Acacia	pulchella			No	Native	0.5	0.5-1
AN-28	Quadrat	Agrostocrinum	hirsutum			No	Native	<1	0.5
AN-28	Quadrat	Bossiaea	ornata			No	Native	20	0.4
AN-28	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-28	Quadrat	Clematis	pubescens			No	Native	3	Cl
AN-28	Quadrat	Corymbia	calophylla			No	Native	35	15-30
AN-28	Quadrat	Dampiera	alata			No	Native	<1	0.15
AN-28	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-28	Quadrat	Deyeuxia	quadriseta			No	Native	<1	0.6
AN-28	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5
AN-28	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-28	Quadrat	Goodenia	eatoniana			No	Native	<1	0.2
AN-28	Quadrat	Hakea	amplexicaulis			No	Native	1	0.5-1.5
AN-28	Quadrat	Hibbertia	amplexicaulis			No	Native	4	0.4
AN-28	Quadrat	Hibbertia	commutata			No	Native	3	0.2
AN-28	Quadrat	Hovea	chorizemifolia			No	Native	<1	0.2
AN-28	Opportunistic	Kennedia	coccinea			No	Native	-	-
AN-28	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-28	Quadrat	Leucopogon	capitellatus			No	Native	17	0.3
AN-28	Quadrat	Leucopogon	verticillatus			No	Native	2	0.5-1
AN-28	Quadrat	Lomandra	cf. drummondii			No	Native	2	0.5
AN-28	Quadrat	Macrozamia	riedlei			No	Native	1	0.5-1
AN-28	Quadrat	Microlaena	stipoides			No	Native	<1	0.3
AN-28	Quadrat	Monotaxis	occidentalis			No	Native	<1	0.2
AN-28	Quadrat	Opercularia	apiciflora			No	Native	0.5	0.3
AN-28	Quadrat	Opercularia	hispidula			No	Native	1	0.4
AN-28	Quadrat	Persoonia	longifolia			No	Native	1	0.5-2.5
AN-28	Quadrat	Pithocarpa	ramosa			No	Native	<1	0.75
AN-28	Quadrat	Pteridium	esculentum			No	Native	4	0.5-1.5
AN-28	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-28	Quadrat	Senecio	multicaulis			No	Native	<1	0.5

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-28	Quadrat	Stackhousia	huegelii			No	Native	0.5	0.4
AN-28	Quadrat	Stylium	amoenum			No	Native	<1	0.3
AN-28	Quadrat	Styphelia	propinqua			No	Native	1	0.7
AN-28	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-28	Quadrat	Tetratheca	affinis			No	Native	0.5	0.4
AN-28	Quadrat	Tetratheca	hispidissima			No	Native	7	0.5
AN-28	Quadrat	Thysanotus	multiflorus			No	Native	<1	0.2
AN-28	Quadrat	Trichocline	spathulata			No	Native	<1	0.1
AN-28	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-29	Quadrat	*Briza	maxima			No	Introduced	<1	0.3
AN-29	Quadrat	Acacia	pulchella			No	Native	1	0.5-1
AN-29	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-29	Quadrat	Bossiaea	ornata			No	Native	20	0.5
AN-29	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	1	CI
AN-29	Quadrat	Clematis	pubescens			No	Native	3	CI
AN-29	Quadrat	Corymbia	calophylla			No	Native	30	15-30
AN-29	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-29	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5
AN-29	Quadrat	Eucalyptus	marginata			No	Native	40	15-30
AN-29	Quadrat	Hakea	lissocarpha			No	Native	<1	0.7
AN-29	Quadrat	Hibbertia	amplexicaulis			No	Native	3	0.4
AN-29	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-29	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-29	Quadrat	Leucopogon	capitellatus			No	Native	15	0.3
AN-29	Quadrat	Lomandra	caespitosa			No	Native	1	0.2
AN-29	Quadrat	Macrozamia	riedlei			No	Native	1.5	0.5-1
AN-29	Quadrat	Microlaena	stipoides			No	Native	<1	0.2
AN-29	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	0.5	0.4
AN-29	Quadrat	Opercularia	apiciflora			No	Native	0.5	0.3
AN-29	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2
AN-29	Quadrat	Pentapeltis	silvatica			No	Native	<1	0.1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-29	Quadrat	Persoonia	longifolia			No	Native	1	1-4
AN-29	Quadrat	Pteridium	esculentum			No	Native	3	0.5-1.5
AN-29	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-29	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-29	Quadrat	Stylium	amoenum			No	Native	<1	0.3
AN-29	Quadrat	Styphelia	propinqua			No	Native	1	0.5
AN-29	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.2
AN-29	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	<1	0.2
AN-29	Quadrat	Xanthorrhoea	gracilis			No	Native	1	0.5-1
AN-29	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-30	Quadrat	*Briza	maxima			No	Introduced	0.5	0.3
AN-30	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.3
AN-30	Quadrat	Acacia	pulchella			No	Native	0.5	0.5-1
AN-30	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-30	Quadrat	Billardiera	fusiformis			No	Native	<1	0.3
AN-30	Quadrat	Bossiaea	linophylla			No	Native	15	1-3
AN-30	Quadrat	Bossiaea	ornata			No	Native	12	<0.5
AN-30	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	1	Cl
AN-30	Quadrat	Clematis	pubescens			No	Native	8	Cl
AN-30	Quadrat	Corymbia	calophylla			No	Native	40	15-30
AN-30	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-30	Quadrat	Dichopogon		sp.	indet	No	Native	<1	0.2
AN-30	Quadrat	Eucalyptus	marginata			No	Native	30	15-30
AN-30	Quadrat	Geranium	solanderi			No	Native	<1	0.2
AN-30	Quadrat	Haemodorum	laxum			No	Native	<1	1
AN-30	Quadrat	Hakea	amplexicaulis			No	Native	<1	0.35
AN-30	Quadrat	Hardenbergia	comptoniana			No	Native	<1	Cl
AN-30	Quadrat	Hibbertia	amplexicaulis			No	Native	<1	0.5-1
AN-30	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-30	Quadrat	Lagenophora	huegelii			No	Native	0.5	0.1
AN-30	Quadrat	Leucopogon	capitellatus			No	Native	3	<0.5

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-30	Quadrat	Leucopogon	verticillatus			No	Native	2.5	1-1.5
AN-30	Quadrat	Macrozamia	riedlei			No	Native	2.5	0.5-1
AN-30	Quadrat	Opercularia	apiciflora			No	Native	7	<0.5
AN-30	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-30	Quadrat	Persoonia	longifolia			No	Native	1	>2
AN-30	Quadrat	Pteridium	esculentum			No	Native	25	1-2
AN-30	Quadrat	Styphelia	propinqua			No	Native	<1	0.5
AN-30	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-30	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	0.5	0.2
AN-30	Quadrat	Veronica	calycina			No	Introduced	0.5	0.1
AN-30	Quadrat	Xanthorrhoea	gracilis			No	Native	0.5	0.5-1
AN-30	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-31	Quadrat	*Briza	maxima			No	Native	<1	0.3
AN-31	Quadrat	*Eucalyptus	resinifera			No	Introduced	10	15-30
AN-31	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-31	Quadrat	*Plantago	lanceolata			No	Native	<1	0.3
AN-31	Quadrat	*Rubus	anglocandicans			No	Introduced	<1	0.5
AN-31	Quadrat	Acacia	celastrifolia			No	Native	12	>2
AN-31	Quadrat	Acacia	latericola			No	Native	5	1-2.5
AN-31	Quadrat	Acacia	pulchella			No	Native	2	1-2
AN-31	Quadrat	Amphipogon	debilis			No	Native	<1	0.3
AN-31	Quadrat	Babingtonia	camphorosmae			No	Native	1	0.2
AN-31	Quadrat	Billardiera	fusiformis			No	Native	3	1-2
AN-31	Quadrat	Bossiaea	ornata			No	Native	1	0.4
AN-31	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-31	Quadrat	Chorizema	cordatum			No	Native	0.5	1
AN-31	Quadrat	Clematis	pubescens			No	Native	2	Cl
AN-31	Quadrat	Comesperma	ciliatum			No	Native	<1	Cl
AN-31	Quadrat	Corymbia	calophylla			No	Native	30	15-30
AN-31	Quadrat	Cryptandra	arbutiflora			No	Native	1	0.3
AN-31	Quadrat	Cyathochaeta	avenacea			No	Native	0.5	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-31	Quadrat	Dampiera	alata			No	Native	3	0.3
AN-31	Quadrat	Desmocladus	fasciculatus			No	Native	2	0.1
AN-31	Quadrat	Deyeuxia	quadriseta			No	Native	<1	0.4
AN-31	Opportunistic	Dichelachne	micrantha			No	Native	-	-
AN-31	Quadrat	Eucalyptus	marginata			No	Native	10	15-30
AN-31	Quadrat	Eucalyptus	patens			No	Native	20	15-30
AN-31	Quadrat	Gompholobium	polymorphum			No	Native	0.5	0.2
AN-31	Quadrat	Haemodorum	laxum			No	Native	<1	0.7
AN-31	Quadrat	Hibbertia	diamesogenos			No	Native	2	0.1
AN-31	Quadrat	Hypocalymma	angustifolium			No	Native	10	0.5
AN-31	Quadrat	Lepidosperma	leptostachyum			No	Native	3	0.5
AN-31	Opportunistic	Leptocarpus	kraussii			No	Native	-	-
AN-31	Quadrat	Leucopogon	capitellatus			No	Native	1	0.3
AN-31	Quadrat	Leucopogon	verticillatus			No	Native	1	1
AN-31	Quadrat	Lomandra	caespitosa			No	Native	<1	0.3
AN-31	Opportunistic	Lomandra	pauciflora			No	Native	-	-
AN-31	Quadrat	Lysiandra	calycina			No	Native	4	0.4
AN-31	Quadrat	Microlaena	stipoides			No	Native	1	0.3
AN-31	Quadrat	Monotaxis	occidentalis			No	Native	<1	0.1
AN-31	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	8	0.5
AN-31	Quadrat	Opercularia	apiciflora			No	Native	<1	0.3
AN-31	Quadrat	Opercularia	hispidula			No	Native	1	0.4
AN-31	Quadrat	Oxalis	perennans			No	Introduced	1	0.1
AN-31	Quadrat	Patersonia	occidentalis			No	Native	<1	0.4
AN-31	Quadrat	Philotheca	spicata			No	Native	0.5	0.3
AN-31	Quadrat	Poranthera	microphylla			No	Native	<1	0.1
AN-31	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-31	Quadrat	Scaevola	calliptera			No	Native	<1	0.2
AN-31	Quadrat	Stackhousia	huegelii			No	Native	1	0.3
AN-31	Quadrat	Stylium	spathulatum			No	Native	3	0.2
AN-31	Quadrat	Stylium	tenue	subsp.	tenue	No	Native	1	0.2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-31	Quadrat	Styphelia	discolor			No	Native	<1	0.1
AN-31	Quadrat	Styphelia	pallida			No	Native	<1	0.2
AN-31	Quadrat	Styphelia	propinqua			No	Native	1	0.5
AN-31	Quadrat	Tetrarrhena	laevis			No	Native	1	0.4
AN-31	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	<1	0.2
AN-31	Quadrat	Thomasia	grandiflora			No	Native	1	0.2
AN-31	Quadrat	Xanthorrhoea	preissii			No	Native	2	1.5
AN-31 oppcoll	Opportunistic	Goodenia	coerulea			No	Native		
AN-32	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.3
AN-32	Quadrat	*Briza	maxima			No	Introduced	1	0.3
AN-32	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-32	Quadrat	Acacia	celastrifolia			No	Native	1	>2
AN-32	Quadrat	Acacia	pulchella			No	Native	2	>2
AN-32	Opportunistic	Acacia	trigonophylla			No	Native	-	-
AN-32	Quadrat	Babingtonia	camphorosmae			No	Native	1.5	0.35
AN-32	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	5	0.2
AN-32	Quadrat	Bossiaea	aquifolium			No	Native	<1	2
AN-32	Quadrat	Bossiaea	ornata			No	Native	2	0.3
AN-32	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-32	Quadrat	Conostylis	aculeata	subsp.	aculeata	No	Native	0.5	0.3
AN-32	Quadrat	Corymbia	calophylla			No	Native	20	15-30
AN-32	Quadrat	Craspedia	variabilis			No	Native	<1	0.3
AN-32	Quadrat	Cryptandra	arbutiflora			No	Native	0.5	0.4
AN-32	Quadrat	Dampiera	alata			No	Native	<1	0.1
AN-32	Quadrat	Daucus	glochidiatus			No	Native	0.5	0.2
AN-32	Quadrat	Desmocladus	fasciculatus			No	Native	3	0.1
AN-32	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5-1
AN-32	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-32	Quadrat	Gompholobium	polymorphum			No	Native	<1	Cl
AN-32	Quadrat	Hakea	lissocarpa			No	Native	1	0.5-1.5
AN-32	Quadrat	Hakea	prostrata			No	Native	2	>2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-32	Quadrat	Hibbertia	amplexicaulis			No	Native	0.5	0.4
AN-32	Quadrat	Hibbertia	commutata			No	Native	0.5	0.2
AN-32	Quadrat	Hibbertia	diamesogenos			No	Native	1	0.1
AN-32	Quadrat	Hovea	trisperma			No	Native	<1	0.2
AN-32	Quadrat	Hypocalymma	angustifolium			No	Native	5	0.4
AN-32	Quadrat	Lagenophora	huegelii			No	Native	1	0.1
AN-32	Quadrat	Lepidosperma	leptostachyum			No	Native	2	0.6
AN-32	Quadrat	Leucopogon	capitellatus			No	Native	5	0.3
AN-32	Quadrat	Lomandra	caespitosa			No	Native	<1	0.2
AN-32	Quadrat	Lomandra	cf. drummondii			No	Native	1	0.4
AN-32	Quadrat	Lomandra	sericea			No	Native	<1	0.5
AN-32	Quadrat	Macrozamia	riedlei			No	Native	1.5	0.5-1
AN-32	Quadrat	Microlaena	stipoides			No	Native	<1	0.4
AN-32	Quadrat	Monotaxis	occidentalis			No	Native	<1	0.1
AN-32	Quadrat	Morelotia	octandra			No	Native	<1	0.3
AN-32	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	4	0.5
AN-32	Quadrat	Opercularia	apiciflora			No	Native	<1	0.3
AN-32	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-32	Quadrat	Patersonia	babianoides			No	Native	<1	0.2
AN-32	Quadrat	Persoonia	longifolia			No	Native	0.5	0.5-1
AN-32	Quadrat	Podolepis	gracilis			No	Native	<1	0.2
AN-32	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-32	Quadrat	Scaevolia	calliptera			No	Native	<1	0.1
AN-32	Quadrat	Senecio	multicaulis			No	Native	<1	0.5
AN-32	Quadrat	Stackhousia	huegelii			No	Native	<1	0.3
AN-32	Quadrat	Stylium	amoenum			No	Native	<1	0.2
AN-32	Quadrat	Styphelia	erectifolia			No	Native	1.5	0.15
AN-32	Quadrat	Styphelia	pallida			No	Native	1	0.15
AN-32	Quadrat	Styphelia	propinquua			No	Native	1.5	0.5-1
AN-32	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-32	Quadrat	Tetratheca	affinis			No	Native	<1	0.3

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-32	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	1	0.2
AN-32	Quadrat	Veronica	calycina			No	Introduced	<1	0.1
AN-32	Quadrat	Xanthorrhoea	preissii			No	Native	6.5	1-2
AN-32	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-33	Quadrat	*Aira	cupaniana			No	Introduced	0.5	0.1
AN-33	Quadrat	*Briza	maxima			No	Introduced	<1	0.2
AN-33	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-33	Quadrat	*Lysimachia	arvensis			No	Introduced	<1	0.1
AN-33	Quadrat	*Parentucellia	latifolia			No	Introduced	<1	0.1
AN-33	Quadrat	*Vulpia	bromoides			No	Introduced	<1	0.1
AN-33	Quadrat	Acacia	pulchella			No	Native	2.5	1-1.5
AN-33	Quadrat	Acacia	stenoptera			No	Native	<1	0.2
AN-33	Quadrat	Anigozanthos		sp.	indet	No	Native	<1	0.1
AN-33	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	5	0.2
AN-33	Quadrat	Bossiaea	ornata			No	Native	0.5	0.2
AN-33	Quadrat	Brachyscome	iberidifolia			No	Native	0.5	0.1
AN-33	Quadrat	Conostylis	aculeata	subsp.	aculeata	No	Native	0.5	0.3
AN-33	Quadrat	Corymbia	calophylla			No	Native	15	15-30
AN-33	Quadrat	Desmocladus	fasciculatus			No	Native	5	0.1
AN-33	Quadrat	Eucalyptus	marginata			No	Native	25	15-30
AN-33	Quadrat	Gahnia	aristata			No	Native	1	0.5
AN-33	Quadrat	Gompholobium	marginatum			No	Native	<1	0.1
AN-33	Quadrat	Gompholobium	polymorphum			No	Native	<1	Cl
AN-33	Quadrat	Hakea	lissocarpa			No	Native	1	1
AN-33	Quadrat	Hakea	prostrata			No	Native	2	>2
AN-33	Quadrat	Hibbertia	amplexicaulis			No	Native	<1	0.3
AN-33	Quadrat	Hibbertia	diamesogenos			No	Native	1.5	0.1
AN-33	Quadrat	Hibbertia	hypericoides			No	Native	7	0.4
AN-33	Quadrat	Hypocalymma	angustifolium			No	Native	1	0.4
AN-33	Quadrat	Isotoma	hypocrateriformis			No	Native	<1	0.2
AN-33	Quadrat	Labichea	punctata			No	Native	<1	0.1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-33	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-33	Quadrat	Laxmannia	squarrosa			No	Native	<1	0.1
AN-33	Quadrat	Lepidosperma	leptostachyum			No	Native	0.5	0.5
AN-33	Quadrat	Leucopogon	capitellatus			No	Native	1.5	0.4
AN-33	Quadrat	Levenhookia	pusilla			No	Native	<1	0.05
AN-33	Quadrat	Lindsaea	linearis			No	Native	<1	0.2
AN-33	Quadrat	Lomandra	cf. drummondii			No	Native	1	0.4
AN-33	Quadrat	Lomandra	hermaphrodita			No	Native	<1	0.1
AN-33	Quadrat	Lomandra	sericea			No	Native	<1	0.4
AN-33	Quadrat	Macrozamia	riedlei			No	Native	1	1
AN-33	Quadrat	Microlaena	stipoides			No	Native	<1	0.4
AN-33	Quadrat	Millotia	tenuifolia			No	Native	<1	0.1
AN-33	Quadrat	Morelotia	octandra			No	Native	1	0.4
AN-33	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	1	0.4
AN-33	Quadrat	Opercularia	apiciflora			No	Native	<1	0.2
AN-33	Quadrat	Oxalis	perennans			No	Introduced	<1	0.1
AN-33	Quadrat	Philotheca	spicata			No	Native	0.5	0.3
AN-33	Quadrat	Podolepis	gracilis			No	Native	2	0.25
AN-33	Quadrat	Poranthera	microphylla			No	Native	<1	0.1
AN-33	Quadrat	Rhodanthe	citrina			No	Native	0.5	0.1
AN-33	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.2
AN-33	Quadrat	Senecio	multicaulis			No	Native	<1	0.5
AN-33	Quadrat	Styphelia	discolor			No	Native	<1	0.1
AN-33	Quadrat	Styphelia	erectifolia			No	Native	0.5	0.15
AN-33	Quadrat	Styphelia	pallida			No	Native	1	0.15
AN-33	Quadrat	Styphelia	propinqua			No	Native	2	0.5-1
AN-33	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	<1	0.2
AN-33	Quadrat	Thelymitra		sp.	indet	No	Native	<1	0.4
AN-33	Quadrat	Thysanotus	tenellus			No	Native	<1	0.2
AN-33	Quadrat	Trachymene	pilosa			No	Native	0.5	0.1
AN-33	Quadrat	Tripterococcus	brunonis			No	Native	<1	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-33	Quadrat	Xanthorrhoea	preissii			No	Native	6	1-2
AN-33	Quadrat	Xanthosia	huegelii			No	Native	<1	0.1
AN-34	Quadrat	*Juncus		sp.	indet	No	Introduced	1	0.5-1
AN-34	Quadrat	*Rubus	anglocandicans			No	Introduced	25	1-2.5
AN-34	Quadrat	Acacia	celastrifolia			No	Native	1	2-3
AN-34	Quadrat	Acacia	saligna			No	Native	15	<5
AN-34	Quadrat	Acacia	urophylla			No	Native	2	2-4
AN-34	Quadrat	Astartea	scoparia			No	Native	8	2-4
AN-34	Quadrat	Callistachys	lanceolata			No	Native	2	<5
AN-34	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	1	Cl
AN-34	Quadrat	Chorizandra	enodis			No	Native	1	0.5-1
AN-34	Quadrat	Chorizema	cordatum			No	Native	<1	1
AN-34	Quadrat	Corymbia	calophylla			No	Native	15	15-30
AN-34	Quadrat	Eucalyptus	patens			No	Native	15	15.-30
AN-34	Quadrat	Eucalyptus	rudis	subsp.	rudis	No	Native	40	15-30
AN-34	Quadrat	Leptocarpus	kraussii			No	Native	6	1-2
AN-34	Quadrat	Machaerina	rubiginosa			No	Native	3	1
AN-34	Quadrat	Poa	porphyrocladus			No	Introduced	<1	1
AN-34	Quadrat	Taxandria	linearifolia			No	Native	2	2-4
AN-34	Quadrat	Tricoryne	elatior			No	Native	<1	1
AN-35	Quadrat	*Briza	maxima			No	Introduced	1.5	0.3
AN-35	Quadrat	Acacia	nervosa			No	Native	1	0.3
AN-35	Quadrat	Acacia	pulchella			No	Native	4	1-1.5
AN-35	Quadrat	Acacia	stenoptera			No	Native	1	0.4
AN-35	Quadrat	Agrostocrinum	hirsutum			No	Native	<1	0.6
AN-35	Quadrat	Amphipogon	debilis			No	Native	<1	0.2
AN-35	Quadrat	Anigozanthos		sp.	indet	No	Native	-	-
AN-35	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-35	Quadrat	Babingtonia	camphorosmae			No	Native	4	0.4
AN-35	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	4	0.2
AN-35	Quadrat	Bossiaea	ornata			No	Native	2	0.5

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-35	Quadrat	Brachyscome	iberidifolia			No	Native	0.5	0.1
AN-35	Quadrat	Caesia	micrantha			No	Native	<1	0.4
AN-35	Quadrat	Comesperma	ciliatum			No	Native	<1	Cl
AN-35	Quadrat	Conostylis	aculeata	subsp.	aculeata	No	Native	0.5	0.3
AN-35	Quadrat	Corymbia	calophylla			No	Native	30	15-30
AN-35	Quadrat	Cryptandra	arbutiflora			No	Native	1	0.5-1
AN-35	Quadrat	Dampiera	alata			No	Native	3	0.1
AN-35	Quadrat	Daviesia	physodes			No	Native	-	-
AN-35	Quadrat	Desmocladus	fasciculatus			No	Native	5	0.2
AN-35	Quadrat	Eucalyptus	marginata			No	Native	20	15-30
AN-35	Quadrat	Gompholobium	marginatum			No	Native	<1	0.1
AN-35	Quadrat	Gompholobium	polymorphum			No	Native	<1	Cl
AN-35	Quadrat	Hakea	lissocarpa			No	Native	1	0.5-1
AN-35	Quadrat	Hakea	prostrata			No	Native	4	>2
AN-35	Quadrat	Hibbertia	amplexicaulis			No	Native	<1	0.3
AN-35	Quadrat	Hibbertia	diamesogenos			No	Native	2	0.1
AN-35	Quadrat	Hibbertia	hypericoides			No	Native	6	0.4
AN-35	Quadrat	Hypocalymma	angustifolium			No	Native	1	0.4
AN-35	Quadrat	Kennedia	coccinea			No	Native	-	-
AN-35	Quadrat	Laxmannia	squarrosa			No	Native	<1	0.1
AN-35	Quadrat	Lepidosperma	leptostachyum			No	Native	5	0.5-1
AN-35	Quadrat	Levenhookia	pusilla			No	Native	<1	0.1
AN-35	Quadrat	Levenhookia	stipitata			No	Native	<1	0.1
AN-35	Quadrat	Lysiandra	calycina			No	Native	2	0.4
AN-35	Quadrat	Microlaena	stipoides			No	Native	<1	0.4
AN-35	Quadrat	Morelotia	octandra			No	Native	0.5	0.3
AN-35	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	8	0.5
AN-35	Quadrat	Opercularia	apiciflora			No	Native	<1	0.2
AN-35	Quadrat	Podolepis	gracilis			No	Native	<1	0.2
AN-35	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-35	Quadrat	Scaevola	calliptera			No	Native	0.5	0.3

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-35	Quadrat	Stylium	tenuue	subsp.	tenue	No	Native	1	0.25
AN-35	Quadrat	Styphelia	discolor			No	Native	1	0.2
AN-35	Quadrat	Styphelia	erectifolia			No	Native	1	0.1
AN-35	Quadrat	Styphelia	pallida			No	Native	2	0.2
AN-35	Quadrat	Thelymitra		sp.	indet	No	Native	<1	0.4
AN-35	Quadrat	Tripterococcus	brunonis			No	Native	<1	0.4
AN-35	Quadrat	Xanthorrhoea	preissii			No	Native	6	1-2
AN-36	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.1
AN-36	Quadrat	*Briza	maxima			No	Introduced	0.5	0.3
AN-36	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.2
AN-36	Quadrat	Acaena	echinata			No	Native	<1	0.1
AN-36	Quadrat	Bossiaeae	ornata			No	Native	2	0.2
AN-36	Quadrat	Clematis	pubescens			No	Native	2	Cl
AN-36	Quadrat	Corymbia	calophylla			No	Native	35	15-30
AN-36	Quadrat	Daucus	glochidiatus			No	Native	1	0.2
AN-36	Quadrat	Deyeuxia	quadriseta			No	Native	<1	1
AN-36	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5
AN-36	Quadrat	Eucalyptus	marginata			No	Native	35	15-30
AN-36	Quadrat	Euchiton	collinus			No	Native	<1	0.1
AN-36	Quadrat	Goodenia	eatoniana			No	Native	<1	0.1
AN-36	Quadrat	Hakea	lissocarpha			No	Native	0.5	0.5
AN-36	Quadrat	Hibbertia	amplexicaulis			No	Native	1	0.3
AN-36	Quadrat	Hibbertia	commutata			No	Native	2	0.2
AN-36	Quadrat	Isotoma	hypocrateriformis			No	Native	<1	0.2
AN-36	Quadrat	Labichea	punctata			No	Native	0.5	0.1
AN-36	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-36	Quadrat	Leucopogon	capitellatus			No	Native	4	0.2
AN-36	Quadrat	Lomandra	hermaphrodita			No	Native	<1	0.1
AN-36	Quadrat	Lomandra	integra			No	Native	<1	0.2
AN-36	Quadrat	Macrozamia	riedlei			No	Native	1.5	0.5-
AN-36	Quadrat	Microlaena	stipoides			No	Native	0.5	0.4

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-36	Quadrat	Netrostylis		sp.	Jarrah Forest (R. Davis 7391)	No	Native	0.5	0.3
AN-36	Quadrat	Opercularia	apiciflora			No	Native	<1	0.2
AN-36	Quadrat	Opercularia	hispidula			No	Native	0.5	0.3
AN-36	Quadrat	Persoonia	longifolia			No	Native	1	1-3
AN-36	Quadrat	Pteridium	esculentum			No	Native	1	0.5-1
AN-36	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.3
AN-36	Quadrat	Scaevola	calliptera			No	Native	<1	0.1
AN-36	Quadrat	Senecio	multicaulis			No	Native	<1	0.3
AN-36	Quadrat	Stylium	amoenum			No	Native	<1	0.2
AN-36	Quadrat	Styphelia	propinquua			No	Native	0.5	0.5-1
AN-36	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-36	Quadrat	Tetratheca	affinis			No	Native	<1	0.3
AN-36	Quadrat	Thelymitra		sp.	indet	No	Native	<1	0.3
AN-36	Quadrat	Trachymene	pilosa			No	Native	<1	0.1
AN-36	Quadrat	Xanthosia	atkinsoniana			No	Native	<1	0.5
AN-36	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-36	Quadrat	Xanthosia	huegelii			No	Native	<1	0.1
AN-37	Quadrat	*Aira	cupaniana			No	Introduced	<1	0.1
AN-37	Quadrat	*Briza	maxima			No	Introduced	2	0.3
AN-37	Quadrat	*Silene	gallica			No	Introduced		
AN-37	Quadrat	Acacia	extensa			No	Native	1	1
AN-37	Quadrat	Bossiaea	linophylla			No	Native	15	0.5-4
AN-37	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	1.5	Cl
AN-37	Quadrat	Clematis	pubescens			No	Native	1.5	Cl
AN-37	Quadrat	Conostylis	aculeata	subsp.	aculeata	No	Native	0.5	0.3
AN-37	Quadrat	Corymbia	calophylla			No	Native	25	15-30
AN-37	Quadrat	Craspedia	variabilis			No	Native	0.5	0.5
AN-37	Quadrat	Cryptostylis	ovata			No	Native	1	0.3
AN-37	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-37	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5
AN-37	Quadrat	Eucalyptus	marginata			No	Native	25	15-30

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-37	Opportunistic	Gompholobium	tomentosum			No	Native	-	-
AN-37	Opportunistic	Hardenbergia	comptoniana			No	Native	-	-
AN-37	Quadrat	Hibbertia	hypericoides			No	Native	5	<0.5
AN-37	Quadrat	Hyalosperma	cotula			No	Native	<1	0.2
AN-37	Quadrat	Hypolaena	exsulca			No	Native	2	0.4
AN-37	Quadrat	Leptomeria	cunninghamii			No	Native	1	0.4
AN-37	Quadrat	Leucopogon	capitellatus			No	Native	7	<0.5
AN-37	Quadrat	Lomandra	hermaphrodita			No	Native	<1	0.3
AN-37	Opportunistic	Lyginia	imberbis			No	Native	-	-
AN-37	Quadrat	Lysiandra	calycina			No	Native	2	0.4
AN-37	Quadrat	Macrozamia	riedlei			No	Native	8	0.5-1
AN-37	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	1	0.5
AN-37	Quadrat	Opercularia	hispidula			No	Native	1	0.4
AN-37	Quadrat	Persoonia	longifolia			No	Native	2	1-4
AN-37	Quadrat	Philotheeca	spicata			No	Native	2	<0.5
AN-37	Quadrat	Podolepis	gracilis			No	Native	<1	0.2
AN-37	Quadrat	Pteridium	esculentum			No	Native	2	0.5-1.5
AN-37	Quadrat	Sowerbaea	laxifolia			No	Native	0.5	0.4
AN-37	Opportunistic	Stypandra	glaucha			No	Native	-	-
AN-37	Quadrat	Styphelia	propinqua			No	Native	1	0.5
AN-37	Quadrat	Trachymene	pilosa			No	Native	0.5	0.1
AN-37 oppcoll	Opportunistic	Melaleuca	thymoides			No	Native		
AN-38	Quadrat	*Eucalyptus	resinifera			No	Introduced	5	15-30
AN-38	Quadrat	*Rubus	anglocandicans			No	Introduced	1	1-2
AN-38	Quadrat	Acacia	saligna			No	Native	2	<5
AN-38	Quadrat	Acacia	urophylla			No	Native	1	2-3
AN-38	Quadrat	Astartea	scoparia			No	Native	6	1.53
AN-38	Quadrat	Billardiera	fusiformis			No	Native	1	Cl
AN-38	Quadrat	Corymbia	calophylla			No	Native	5	15-30
AN-38	Quadrat	Eucalyptus	rudis	subsp.	rudis	No	Native	20	15-30
AN-38	Quadrat	Gastrolobium	bilobum			No	Native	3	>2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-38	Quadrat	Juncus	holoschoenus			No	Introduced	2	1
AN-38	Quadrat	Juncus	pallidus			No	Native	2	1-2
AN-38	Quadrat	Leptocarpus	depilatus			No	Native	1	1
AN-38	Quadrat	Lobelia	anceps			No	Native	2	0.5
AN-38	Quadrat	Machaerina	rubiginosa			No	Native	10	1
AN-38	Quadrat	Myriophyllum	crispatum			No	Native	2	0.5
AN-38	Quadrat	Taxandria	linearifolia			No	Native	15	2-4
AN-39	Quadrat	*Briza	maxima			No	Introduced	1	0.3
AN-39	Quadrat	Acacia	pulchella			No	Native	1	0.5-1
AN-39	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-39	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	1	0.15
AN-39	Quadrat	Banksia	grandis			No	Native	22	2-10
AN-39	Quadrat	Billarderia	fusiformis			No	Native	<1	Cl
AN-39	Quadrat	Bossiaea	linophylla			No	Native	5	1-3
AN-39	Quadrat	Bossiaea	ornata			No	Native	18	0.5
AN-39	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-39	Quadrat	Chamaescilla	corymbosa			No	Native	<1	0.1
AN-39	Quadrat	Clematis	pubescens			No	Native	2	Cl
AN-39	Quadrat	Conostylis	serrulata			No	Native	<1	0.25
AN-39	Quadrat	Corymbia	calophylla			No	Native	40	15-30
AN-39	Quadrat	Dampiera	linearis			No	Native	<1	0.1
AN-39	Quadrat	Daucus	glochidiatus			No	Native	<1	0.2
AN-39	Quadrat	Desmocladus	fasciculatus			No	Native	<1	0.1
AN-39	Quadrat	Dichelachne	micrantha			No	Native	<1	0.5
AN-39	Quadrat	Eucalyptus	marginata			No	Native	30	15-30
AN-39	Quadrat	Haemodorum	laxum			No	Native	<1	0.5
AN-39	Quadrat	Hardenbergia	comptoniana			No	Native	<1	Cl
AN-39	Quadrat	Hibbertia	amplexicaulis			No	Native	1	0.3
AN-39	Quadrat	Hovea	chorizemifolia			No	Native	<1	0.2
AN-39	Quadrat	Hypolaena	exsulca			No	Native	2	0.3
AN-39	Quadrat	Isotoma	hypocrateriformis			No	Native	<1	0.2

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-39	Quadrat	Isotropis	cuneifolia			No	Native	<1	0.1
AN-39	Quadrat	Labichea	punctata			No	Native	<1	0.1
AN-39	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-39	Quadrat	Leucopogon	capitellatus			No	Native	7	0.3
AN-39	Quadrat	Leucopogon	verticillatus			No	Native	0.5	1
AN-39	Quadrat	Lomandra	caespitosa			No	Native	1.5	0.2
AN-39	Quadrat	Lomandra	cf. drummondii			No	Native	<1	0.4
AN-39	Quadrat	Lomandra	sericea			No	Native	0.5	0.4
AN-39	Quadrat	Loxocarya	cinerea			No	Native	4	0.4
AN-39	Quadrat	Macrozamia	riedlei			No	Native	3.5	0.5-1
AN-39	Quadrat	Opercularia	hispidula			No	Native	1	0.3
AN-39	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2
AN-39	Quadrat	Patersonia	babianoides			No	Native	<1	0.2
AN-39	Quadrat	Persoonia	longifolia			No	Native	2	2-4
AN-39	Quadrat	Podolepis	gracilis			No	Native	<1	0.2
AN-39	Quadrat	Pteridium	esculentum			No	Native	3	1-2
AN-39	Quadrat	Rytidosperma	pilosum			No	Native	<1	0.2
AN-39	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-39	Quadrat	Stylium	amoenum			No	Native	<1	0.3
AN-39	Quadrat	Stylium	ciliatum			No	Native	<1	0.2
AN-39	Quadrat	Styphelia	propinqua			No	Native	2	0.5
AN-39	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-39	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	0.5	0.2
AN-39	Quadrat	Thysanotus	multiflorus			No	Native	<1	0.2
AN-39	Quadrat	Thysanotus	sparteus			No	Native	<1	1
AN-39	Quadrat	Trachymene	pilosa			No	Native	<1	0.1
AN-39	Quadrat	Tripterococcus	brunonis			No	Native	<1	0.4
AN-39	Quadrat	Xanthosia	candida			No	Native	<1	0.1
AN-40	Quadrat	*Aira	cupaniana			No	Introduced	0.5	0.1
AN-40	Quadrat	*Briza	maxima			No	Introduced	2	0.3
AN-40	Quadrat	*Centaurium	erythraea			No	Introduced	<1	0.3

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-40	Quadrat	*Hypochaeris	glabra			No	Introduced	<1	0.1
AN-40	Quadrat	*Lysimachia	arvensis			No	Introduced	<1	0.1
AN-40	Opportunistic	*Pinus	radiata			No	Introduced	-	-
AN-40	Quadrat	*Vulpia	bromoides			No	Introduced	0.5	0.1
AN-40	Quadrat	Acacia	celastrifolia			No	Native	15	>2
AN-40	Quadrat	Acacia	pulchella			No	Native	<1	0.5
AN-40	Quadrat	Anigozanthos		sp.	indet	No	Native	<1	0.2
AN-40	Quadrat	Austrostipa	campylachne			No	Native	<1	1
AN-40	Quadrat	Banksia	dallanneyi	subsp.	sylvestris	No	Native	4	0.2
AN-40	Opportunistic	Billardiera	variifolia			No	Native	-	-
AN-40	Quadrat	Boronia	spathulata			No	Native	1	0.4
AN-40	Quadrat	Caesia	micrantha			No	Native	<1	0.3
AN-40	Quadrat	Cassytha	racemosa	forma	racemosa	No	Native	<1	Cl
AN-40	Quadrat	Comesperma	calymega			No	Native	<1	0.4
AN-40	Quadrat	Corymbia	calophylla			No	Native	40	<5
AN-40	Quadrat	Dampiera	linearis			No	Native	<1	0.1
AN-40	Quadrat	Desmocladus	fasciculatus			No	Native	4	0.1
AN-40	Quadrat	Diuris		sp.	indet	No	Native	<1	0.3
AN-40	Quadrat	Eucalyptus	marginata			No	Native	10	<5
AN-40	Quadrat	Glischrocaryon	angustifolium			No	Native	1.5	0.5
AN-40	Quadrat	Goodenia	trinervis			No	Native	0.5	0.15
AN-40	Quadrat	Hakea	amplexicaulis			No	Native	<1	1.5
AN-40	Quadrat	Hibbertia	amplexicaulis			No	Native	2	0.4
AN-40	Quadrat	Hibbertia	commutata			No	Native	2	0.3
AN-40	Quadrat	Hibbertia	diamesogenos			No	Native	1.5	0.1
AN-40	Quadrat	Isotoma	hypocrateriformis			No	Native	<1	0.2
AN-40	Quadrat	Labichea	punctata			No	Native	5	0.1
AN-40	Quadrat	Lagenophora	huegelii			No	Native	<1	0.1
AN-40	Quadrat	Leucopogon	capitellatus			No	Native	2	0.3
AN-40	Quadrat	Lomandra	caespitosa			No	Native	0.5	0.2
AN-40	Quadrat	Macrozamia	riedlei			No	Native	1.5	0.5-1

Site	Sampling	Genus	Species	Rank	Infra Name	Significant	Introduced / Native	% Cover	Height (cm)
AN-40	Quadrat	Microlaena	stipoides			No	Native	0.5	0.4
AN-40	Quadrat	Morelotia	octandra			No	Native	<1	0.2
AN-40	Quadrat	Netrostylis		sp.	Jarra Forest (R. Davis 7391)	No	Native	5	0.5
AN-40	Quadrat	Neurachne	alopecuroidea			No	Native	<1	0.2
AN-40	Quadrat	Opercularia	hispidula			No	Native	0.5	0.4
AN-40	Quadrat	Orianthera	serpyllifolia			No	Native	<1	0.2
AN-40	Opportunistic	Persoonia	longifolia			No	Native	-	-
AN-40	Quadrat	Pimelea	ciliata			No	Native	0.5	0.5
AN-40	Quadrat	Podolepis	gracilis			No	Native	0.5	0.2
AN-40	Quadrat	Podotheca	angustifolia			No	Native	<1	0.1
AN-40	Quadrat	Ptilotus	drummondii			No	Native	1	0.2
AN-40	Quadrat	Rhodanthe	citrina			No	Native	0.5	0.1
AN-40	Quadrat	Scaevola	calliptera			No	Native	0.5	0.2
AN-40	Quadrat	Senecio	multicaulis			No	Native	<1	0.3
AN-40	Quadrat	Styphelia	propinquua			No	Native	<1	0.5
AN-40	Quadrat	Tetrarrhena	laevis			No	Native	<1	0.3
AN-40	Quadrat	Tetratheca	hirsuta	subsp.	viminea	No	Native	0.5	0.2
AN-40	Quadrat	Thomasia	grandiflora			No	Native	0.5	0.3
AN-40	Quadrat	Thysanotus	patersonii			No	Native	<1	Cl
AN-40	Quadrat	Thysanotus	sparteus			No	Native	<1	1
AN-40	Quadrat	Trachymene	pilosa			No	Native	0.5	0.1
AN-40	Quadrat	Tripterococcus	brunonis			No	Native	<1	0.3
AN-40	Quadrat	Xanthorrhoea	gracilis			No	Native	2	0.5-1



AN-01



AN-02



AN-03



AN-04



AN-05



AN-06



AN-07



AN-08



AN-09



AN-10



AN-11



AN-12



AN-13



AN-14



AN-15



AN-16



AN-17



AN-18



AN-19



AN-20



AN-21



AN-22



AN-23



AN-24



AN-25



AN-26



AN-27



AN-28



AN-29



AN-30



AN-31



AN-32



AN-33



AN-34



AN-35



AN-36



AN-37



AN-38



AN-39



AN-40