
FLORA AND VEGETATION SURVEY OF THE CARINA EXPLORATION LEASE AREA

Prepared for:

Polaris Metals NL

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1. SUMMARY

Mattiske Consulting Pty Ltd was commissioned in July 2008 by Polaris Metals NL to carry out a flora and vegetation survey on the Carina Exploration Tenement. The proposed Carina mine is located in a small section of the Exploration Tenement E77/1115-I. The wider tenement was assessed to provide local context for the proposed mine site.

A total of 237 taxa (including subspecies and varieties) from 103 genera and 45 families were recorded along the proposed Carina Transport Route. The most prominent families represented were Myrtaceae (43 taxa), Mimosaceae (28 taxa), Myoporaceae (15 taxa), Proteaceae (14 taxa) and Chenopodiaceae (12 taxa).

No plant taxa gazetted as Declared Rare Flora pursuant to subsection (2) of section 23F of the *Wildlife Conservation Act 1950* (WA) (Department of Environment and Conservation, 2008f) or listed as Threatened pursuant to Schedule 1 of the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (Department of the Environment, Water, Heritage and the Arts 2008b) were recorded during the survey within the Carina Exploration Tenement.

Six plant taxa listed as a Priority species by the Department of Environment and Conservation (2008d) were recorded within the Carina Exploration Tenement. These six species were *Pseudactinia* sp. Bungalbin Hill (F.H. & M.P. Molemans 3069) (P1), *Acacia crenulata* (P3), *Acacia eremophila* var. *variabilis* (P3), *Grevillea georgeana* (P3), *Spartothamnella* sp. Helena and Aurora Range (P3) and *Daviesia purpurascens* (P4). In addition, one new undescribed species of *Acacia* was recorded in the Carina Exploration Tenement. This latter new species was confirmed by the *Acacia* expert, Dr Bruce Maslin.

Two introduced (exotic) species were recorded within the proposed Carina Exploration Tenement. The taxa were *Erodium cicutarium* and *Erodium botrys*. The presence of rabbits in the area would not assist in the management of these species as there is potential to spread seed in wider areas through their activities.

Twenty-five plant communities were defined and mapped during the survey. These can be broadly divided into two major groups. Firstly, a sclerophyllous Eucalypt woodland of *Eucalyptus salmonophloia* and *Eucalyptus salubris*, together with a range of other Eucalypt species, over an understorey composed predominantly *Acacia*, *Eremophila* and *Atriplex* species. The other major group was the *Acacia* dominated scrub and thicket communities.

In terms of potential impact, the majority of the Carina Tenement plant communities are relatively widespread and contain taxa that are widespread in the region. Particular consideration may need to be given to the plant communities (S1, S2, W2, W4, W12, W15, W16, W20, W23, W24, W25 and W27) that support the Priority species and the vegetation community S2 that supports the undescribed *Acacia* species. The latter range of communities that support these species partly reflects the lack of research in the area, but also the significant variety of flora in the range of habitats in the area. The proposed mine footprint is anticipated to only impact communities S2, W2, W4, W12 and W22.

At the time of this assessment, no footprint of the proposed development was available and consequently it was not possible to assess the impacts of the proposed mining and associated infrastructure on the specific populations and communities within the Carina Exploration Tenement.

2. INTRODUCTION

Mattiske Consulting Pty. Ltd. was commissioned in 2008 by Polaris Metals NL to carry out a flora and vegetation survey of the Carina Exploration Tenement. The Carina Tenement was assessed over several trips between May and July 2008.

2.1 Location

The Carina Exploration Tenement E77/1115 is located approximately 105 km north of the town of Southern Cross, in Western Australia, Figure 1. The area to be surveyed lies within the Coolgardie Botanical District (Beard, 1990). Part of the Carina project area occurs in part of the Jaurdi station, which is proposed as the Jaurdi Conservation Park (see Environmental Protection Authority 2007).

2.2 Climate

Beard (1990) described the climate of the Coolgardie Botanical District as arid non-seasonal to semi arid Mediterranean, characterised by an arid climate with cool winters and hot, dry summers. Annual precipitation in the Coolgardie Botanical District ranges from 200 mm to 300 mm, with the bulk of the precipitation falling in the winter months, with sporadic summer cyclonic rainfall. Southern Cross, which is located to the southwest of the survey area, has an annual rainfall of 294 mm (Bureau of Meteorology 2008).

2.3 Geology and Topography

The Polaris Metals NL exploration tenements are generally located within an area, which consist of gently undulating plains with occasional ranges of low hills lying on the 'Southern Cross Terrains' of the Yilgarn Craton (Department of Conservation and Land Management, 2003). Beard (1972, 1990) described the Coolgardie Botanical District as having major greenstone belts, which provide the hilly topography, together with banded ironstone ridges rising from the brown calcareous earth of the surrounding plains. There are four main banded ironstone ranges within the area: the Helena and Aurora, Die Hardy, Jackson and Windarling Ranges (Department of Environment and Conservation, 2007). A number of endemic threatened species and communities are associated with each Banded Ironstone Formation (BIF) (Department of Environment and Conservation 2008a; Environmental Protection Authority 2007; Gibson *et al.* 1997; 2007).

2.4 Flora and Vegetation

The survey area lies within the Coolgardie Botanical District, as defined by Beard (1972; 1990). This corresponds with the Coolgardie 2 Bioregion (COO2 – Southern Cross subregion) as defined by the Interim Biogeographical Regionalisation for Australia (IBRA) (Cowan *et al.* 2001). This subregion is characterised by high species and ecosystem diversity, as it is a biogeographic interzone between the Coolgardie and Murchison biogeographic regions (Cowan *et al.* 2001). Dominant plant families within the Coolgardie Botanical District include Myrtaceae (myrtles such as Eucalypts and Melaleucas), Asteraceae (daisies), Chenopodiaceae (salt bushes) and Poaceae (grasses). The Coolgardie Botanical District is characterized by Eucalypt woodlands and covers 5% of the State of Western Australia (Beard 1990).

Beard (1972) originally described the major vegetation formations of the area, including the Helena and Aurora Ranges. Beard (1972) characterises several vegetation units in the region including: *Acacia* thickets on sandplains, *Acacia* thickets on ironstone, *Acacia* scrub on granite, *Acacia* scrub with saltbush understorey, Mulga low woodland, Sclerophyll woodland and Shrub steppe. These units are covered within two main vegetation systems: the Bungalbin system (vegetation on the ironstone outcrops, including the Bungalbin hills) and the Jackson system, occupying a greater part of the area of dissected sandplains (Beard 1972).

The vegetation of the ranges (Bungalbin system) consist of thickets of *Acacia tetragonophylla*, *Acacia quadrimarginea*, *Dryandra arborea* (on rocky outcrops) and *Allocasuarina acutivalvis* with an understorey of shrubs, such as *Dodonaea* spp., *Eremophila* spp., *Eriostemon brucei*, *Enchylaena tomentosa*, and *Grevillea paradoxa* (Beard 1990; Gibson *et al.* 1997). The slopes and flats (Jackson system) consist of Eucalypt woodlands (including *Eucalyptus salmonophloia*, *E. salubris*, *E. transcontinentalis*, *E. longicornis*, *E. corrugata* and *E. sheathiana*) with an understorey of sclerophyllous shrubs such as *Melaleuca pauperiflora*, or soft leaved shrubs such as *Atriplex vesicaria* and *Atriplex nummularia* (Beard 1990; Cowan *et al.* 2001; Gibson *et al.* 1997).

Studies of the flora of the region by Gibson *et al.* (1997) and Gibson and Lyons (1997 a; b; c) have provided more detailed floristics of the region. Furthermore, more recently, detailed flora surveys of BIF ranges within the Yilgarn Craton by both mining proponents and the Department of Environment and Conservation (Department of Environment and Conservation 2007; Gibson *et al.* 2007) have been undertaken. The results of these surveys, some of which are ongoing, indicate that the individual BIF ranges support significantly different plant communities and that some plant communities are highly restricted in their distribution within an individual BIF range. The BIF ranges appear to be refugial habitats with localised species and plant communities. In addition, evidence also supports recent evolutionary divergence of some species (Gibson *et al.* 2007).

A recent interim report released by the Department of Environment and Conservation (2007) recommends that a minimum of 15% and up to 60% of the total number of BIF ranges within the Yilgarn Craton be reserved in their entirety due to the high biodiversity values contained within those ranges. These targets include both BIF ranges in their entirety throughout the Yilgarn Craton and within each individual range. That is, it is recommended that 15% and up to 60% of all BIF ranges are conserved in their entirety and 15% and up to 60% of each individual BIF range are conserved (Department of Environment and Conservation 2007).

The Environmental Protection Authority has recommended that the Mount Manning Region (including the Helena and Aurora, Die Hardy, Windarling, Jackson and Koolyanobbing Ranges) is worthy of recognition as a biodiversity hotspot comparable to Mt Lesueur, Stirling Range and Fitzgerald River regions in Western Australia (see Hopper and Gioia 2004; Environmental Protection Authority 2007).

Further investigation is required to determine the conservation importance of the proposed Jaurdi Conservation Park which includes the Carina prospect (Tenement E77/1115) (see Environmental Protection Authority 2007).

2.5 Clearing of Native Vegetation

The *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* dictate that any clearing of native vegetation in Western Australia requires a permit to do so from the Department of Industry and Resources. 'Native Vegetation' refers to native vegetation as indigenous aquatic and terrestrial vegetation, including dead vegetation unless that dead vegetation is of a class declared by regulation to be excluded from this definition but not vegetation planted in a plantation (*Environmental Protection (Clearing of Native Vegetation) Regulations 2004, section 3(1)*). In the *Environmental Protection Act 1986* Section 51A, clearing is defined as: the killing or destruction of; the removal of; the severing or ringbarking of trunks or stems of; or the doing of substantial damage to some or all of the native vegetation in an area, including the flooding of land, the burning of vegetation, the grazing of stock or an act or activity that results in the above.

Ten clearing principles are specified in Schedule 5 of the *Environmental Protection Act 1986*:

1. Native vegetation should not be cleared if it comprises a high level of biodiversity.
2. Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia.
3. Native Vegetation should not be cleared if it includes, or is necessary, for the continued existence of rare flora.
4. Native vegetation should not be cleared if it compromises the whole or part of, or is necessary for the maintenance of a threatened ecological community.
5. Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
6. Native vegetation should not be cleared if it is growing in, or in association with, and environment associated with a watercourse or wetland.
7. Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
8. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
9. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
10. Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

2.6 Rare and Priority Flora

Species of flora and fauna are afforded Rare or Priority conservation status where their populations are restricted geographically or threatened by local processes. The Department of Environment and Conservation (2008a) recognises these threats of extinction and consequently applies regulations towards population and species protection (Appendix A1).

Rare Flora species are gazetted under subsection 2 of section 23F of the *Wildlife Conservation Act 1950* (WA) and therefore it is an offence to “take” or damage rare flora without Ministerial approval. Section 23F of the *Wildlife Conservation Act 1950* (WA) defines “to take” as “... to gather, pick, cut, pull up, destroy, dig up, remove or injure the flora to cause or permit the same to be done by any means.”

Priority Flora are under consideration for declaration as ‘rare flora’, but are in urgent need of further survey (Priority one to three) or require monitoring every 5-10 years (Priority four). Appendix A1 presents the definitions of Declared Rare and the four Priority ratings under the *Wildlife Conservation Act 1950* (WA) as extracted from Department of Environment and Conservation (2008b).

2.7 Threatened Flora Species and Ecological Communities

Threatened flora species are a matter of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth). A person must not take an action that has, will have, or is likely to have a significant impact on a listed threatened species or ecological community, without approval from the Commonwealth Minister for the Environment and Water Resources. Appendix A2 presents the definitions of the categories of threatened species under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth).

Communities are described as ‘Threatened Ecological Communities’ (TECs) if they have been defined by the Western Australian Threatened Ecological Communities Scientific Advisory Committee and found to be Presumed Totally Destroyed (PD), Critically Endangered (CR), Endangered (EN) or Vulnerable (VU) (Department of Environment and Conservation, 2008c). For further definitions of TEC categories and criteria refer to English and Blyth (1997, 1999). Some Western Australian TECs have also been listed as “Threatened Ecological Communities” under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (Department of the Environment, Water, Heritage and the Arts, 2008a). Appendix A3 presents a summary of the definitions of Threatened Ecological Communities (Department of Environment and Conservation, 2008c).

Possible threatened ecological communities that do not meet survey criteria or that are not adequately defined are added to the Department of Environment and Conservation's Priority Ecological Community Lists under Priorities 1, 2 and 3. These three categories are ranked in order of priority for survey and/or definition of the community, and evaluation of conservation status, so that consideration can be given to their declaration as threatened ecological communities. Ecological Communities that are adequately known, and are rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list, are placed in Priority 4. These ecological communities require regular monitoring. Conservation Dependent ecological communities are placed in Priority 5 (Department of Environment and Conservation, 2008c). Appendix A4 presents a summary of the definitions of Priority Ecological Communities (Department of Environment and Conservation, 2008c).

2.8 Local and Regional Significance

The Environmental Protection Authority (2004) in Guidance Statement 51 states that “species, subspecies, varieties, hybrids and ecotypes may be significant for a range of reasons, other than as Declared Rare Flora or Priority Flora”. According to Environmental Protection Authority (2004) Guidance Statement 51, other significant flora may include taxa that:

- have a keystone role in a particular habitat for threatened species, or supporting large populations representing a significant proportion of the local regional population of a species;
- have relic status;
- have anomalous features that indicate a potential new discovery;
- are representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);
- show the presence of restricted subspecies, varieties, or naturally occurring hybrids;
- have local endemism/a restricted distribution;
- are poorly reserved (Environmental Protection Authority, 2004).

2.9 Exotic (introduced) Plant Species

Exotic (introduced) plant species or weeds are plants growing where they are not wanted (Hussey *et al.* 2007). Exotic (introduced) species may become serious environmental weeds and may be defined as Declared Plant species pursuant to section 37 of the *Agricultural and Related Resources Protection Act 1976* by Department of Agriculture and Food (2008) according to their threat to agriculture and the environment.

3. OBJECTIVES

The specific objectives of the flora and vegetation survey of the Carina Exploration Tenement were to:

- Record or collect and identify all vascular plant species present within the survey area;
- Review the distributions and conservation status of all recorded vascular plant species recorded by reference to current literature, current listings (Department of Environment and Conservation, 2008d) and the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) and with plant collections held at the Western Australian Herbarium (Department of Environment and Conservation 2008a);
- Define and prepare a vegetation map of the plant communities located within the Carina Exploration Tenement;
- review the local and regional significance of the plant communities recorded within the Carina Exploration Tenement in accordance with Guidance Statement 51 (Environmental Protection Authority 2004) and the current listings of TEC's (Department of Environment, Water, Heritage and the Arts 2008).
- Prepare a report summarising the findings.

4. METHODS

An initial search for the Declared Rare and priority flora species known to occur in the region was made using the Western Australian Herbarium database compiled by the Western Australian Herbarium (2008d).

Experienced Botanists from Mattiske Consulting Pty Ltd surveyed the Carina Exploration Tenement between May and July 2008. A total of 235 survey sites were assessed (Appendix E). All geographical coordinates cited in this report are based on the GDA94 datum. The selection of recording sites was based on differences in structure and floristics of the communities within the Carina Exploration Tenement. The survey was undertaken in accordance with Guidance Statement 51 (Environmental Protection Authority 2004).

The vegetation survey consisted of sampling and recording all flora occurring within a 25 m radius of each survey site. The flora and vegetation were described and sampled systematically at each survey site, and additional opportunistic collecting was undertaken wherever previously unrecorded plants were observed, whilst moving from one location to the next. At each site the following floristic and environmental parameters were noted; GPS location, topography, percentage litter cover, soil type and colour, percentage of bare ground, outcropping rocks and their type, pebble type and size, time since fire and the percentage cover and average height of each vegetation stratum. For each vascular plant species, the average height and percent cover of both live and dead material were recorded.

All plant specimens collected during the field surveys were dried and fumigated in accordance with the requirements of the Western Australian Herbarium. The plant species were identified and then compared with pressed specimens housed at the West Australian Herbarium. Where appropriate, plant taxonomists with specialist skills were consulted, including Bruce Maslin, Malcolm Trudgen and other specialists at the Western Australian Herbarium. Nomenclature of the species recorded is in accordance with the Department of Environment and Conservation (2008d).

Additional survey site data, which was recorded during the vegetation survey of the proposed Carina Transport Route, was used to provide additional data to define the plant communities. PATN Version 3.11 (Blatant Fabrications, 2006) statistical analysis software was used to analyse the field data and derive relationships between survey sites based on the percentage cover and presence or absence of species between survey sites. The resulting information provided data which grouped sites based on species composition. This data was used to inform and support interpretation of aerial photography and delineation of individual plant communities. The descriptions of plant communities within the Carina Exploration Tenement are based on the Structural Forms of Australian Vegetation developed by Beard (1990).

5. RESULTS

5.1 Desktop Survey for Potential Rare and Priority Flora Species in the Survey Area

A thorough desktop survey of potential Rare and Priority Flora species potentially in the greater Yilgarn Iron Ore Project Area has previously been reported. Refer to Matiske Consulting Pty Ltd (2008a) for further detail on Declared Rare and Priority species known to occur in the wider region. In the immediate vicinity of the proposed Carina Exploration Tenement, there are a range of Priority Flora species according to the *Wildlife Conservation Act 1950* (WA) and listed on the Department of Environment and Conservation (2008d). These are *Grevillea georgeana* (P3), *Daviesia purpurascens* (P4) and *Sowerbaea multicaulis* (P4).

5.2 Threatened Flora Species and Ecological Communities

There are no Threatened Ecological Communities (TECs) listed in the Coolgardie Botanical District (Department of the Environment, Water, Heritage and the Arts, 2008a; Department of Environment and Conservation, 2008a).

Eight listed Priority Ecological Communities (PECs) (Department of Environment and Conservation, 2008e) are found in the area near to the proposed Carina Transport Route. These are the Koolyanobbing vegetation complexes (P1); Diehardy Range vegetation complex (P1); Mount Jackson Range vegetation complex (P1); Windarling Ranges vegetation complex (P1); Helena and Aurora Range vegetation complexes (P2); Mount Manning Range vegetation complex (P3); Yilgarn Hills vegetation complex (P3) and the Duladgin Ridge vegetation complex (P3) (Department of Environment and Conservation, 2008e).

5.3 Flora

A total of 237 taxa (including subspecies and varieties) from 103 genera and 45 families were recorded along the proposed Carina Transport Route. The most prominent families represented were Myrtaceae (43 taxa), Mimosaceae (28 taxa), Myoporaceae (15 taxa), Proteaceae (14 taxa) and Chenopodiaceae (12 taxa).

5.4 Rare and Priority Flora

No plant taxa gazetted as Declared Rare Flora pursuant to subsection (2) of section 23F of the *Wildlife Conservation Act 1950* (WA) (Department of Environment and Conservation, 2008f) or listed as Threatened pursuant to Schedule 1 of the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (Department of the Environment, Water, Heritage and the Arts 2008b) were recorded during the survey within the Carina Exploration Tenement.

Six plant taxa listed as a Priority species by the Department of Environment and Conservation (2008d) were recorded within the Carina Exploration Tenement. These six species were *Pseudactinia* sp. Bungalbin Hill (F.H. & M.P. Molemans 3069) (P1), *Acacia crenulata* (P3), *Acacia eremophila* var. *variabilis* (P3), *Grevillea georgeana* (P3), *Spartothamnella* sp. Helena and Aurora Range (P3) and *Daviesia purpurascens* (P4). In addition, one new undescribed species of *Acacia* was recorded in the Carina Exploration Tenement. This latter new species was confirmed by the *Acacia* expert, Dr Bruce Maslin.

The locations of the six Priority Flora are summarized in Appendix F. Each Priority Flora species is summarized below:

- *Pseudactinia* sp. Bungalbin Hill (F.H. & M.P. Molemans 3069) EPACRIDACEAE (Priority 1)

Shrub to between 0.3 m and 0.8 m found growing on yellow sands or yellow-brown loamy sands. It produces pink or red flowers between July and October. There are 14 records of this species at the Western Australian Herbarium. This species has been recorded within the Coolgardie, Murchison, Yalgoo and Avon Wheatbelt bioregions. This taxon was recorded at two locations within plant community S1 (see Appendix F and Figure 1).

- *Acacia crenulata* MIMOSACEAE (Priority 3)
Bushy shrub to Tree between 0.7 m and 3 m found growing on sands and clays often in association with rocky rises and granite outcrops. It produces yellow flowers. There are 17 records of this species at the Western Australian Herbarium. This species has been recorded within the Coolgardie bioregions. This taxon was recorded at eight locations within plant communities S1, W2, W4, W12, W15 and W27 (see Appendix F and Figure 1).
- *Acacia eremophila* var. *variabilis* MIMOSACEAE (Priority 3)
Shrub between 1 m and 1.6 m found growing on sands and sandy-loams. It produces yellow flowers. There are 16 records of this species at the Western Australian Herbarium. This species has been recorded within the Coolgardie, Murchison and Wheatbelt areas and extends eastwards to north of Esperance. This taxon was recorded at five locations within plant communities S1, W24 and W27 (see Appendix F and Figure 1).
- *Grevillea georgeana* PROTEACEAE (Priority 3)
Erect shrub between 1 m and 3 m high, found growing on stony loams and clay associated with ironstone hill tops and slopes. It produces pink, red and cream flowers between January and March and September and November. There are 40 records of this species at the Western Australian Herbarium. This species has been recorded within the Coolgardie and Murchison bioregions. This taxon was recorded at twelve locations within plant communities S2, W15, W22, W23 and W25 (see Appendix F and Figure 1).
- *Spartothamnella* sp. Helena and Aurora Range LAMIACEAE (Priority 3)
Shrub to between 0.3 m and 1 m found growing on rocky areas associated with ironstone. There are 12 records of this species at the Western Australian Herbarium. This species has been recorded within the Coolgardie, Yalgoo and Avon Wheatbelt bioregions. This taxon was recorded at two locations within plant communities W5 and W15 (see Appendix F and Figure 1).
- *Daviesia purpurascens* PAPILIONACEAE (Priority 4)
Erect shrub to 1 m found growing on sandy or loamy soils on flats and ridges, which produces yellow, red and brown flowers between August and October. There are 42 records of this species at the Western Australian Herbarium. This species has been recorded principally within the Coolgardie and Goldfields bioregions, with other specimens recorded in the Carnarvon, Murchison, Avon Wheatbelt, Geraldton Sandplain and Mallee bioregions. This taxon was recorded at nine locations within plant communities W2, W15, W16, W20 and W24 (see Appendix D and Figure 1).

In addition an undescribed species of *Acacia* was recorded at one location within plant community S2 (see Appendix D and Figure 1). This latter species was confirmed by the *Acacia* expert in Western Australia (Dr Bruce Maslin) as being a new and undescribed species. This species was recorded at GDA94 - Zone 51J - 214551 mE and 6622738 mN. In view of this species potential significance, additional targeting searches were undertaken for this species near the drilling sites and it appears that this species remains relatively restricted at this juncture.

5.5 Introduced Species

Two introduced (exotic) species were recorded within the proposed Carina Exploration Tenement. The taxa were *Erodium cicutarium* and *Erodium botrys*. The presence of rabbits in the area would not assist in the management of these species as there is potential to spread seed in wider areas through their activities. These species are common on farmlands, pastures and along roadsides, especially on loamy soils (Hussey *et al.*, 2007).

5.6 Vegetation

Twenty-five plant communities were defined and mapped during the survey, Table 1 and Figure 1. These can be broadly divided into two major groups. Firstly, a sclerophyllous Eucalypt woodland of *Eucalyptus salmonophloia* and *Eucalyptus salubris*, together with a range of other Eucalypt species, over an understorey composed predominantly *Acacia*, *Eremophila* and *Atriplex* species. The other major group was the *Acacia* dominated scrub and thicket communities.

In terms of the vegetation types, the Eucalypt Woodlands can be broadly described as a sclerophyll woodland. The upper stratum of the woodland is dominated by a range of Eucalypt species. *Eucalyptus salmonophloia* and *Eucalyptus salubris* were commonly associated in vegetation groups W1 and W2, together with *Eucalyptus corrugata*, *Eucalyptus transcontinentalis*, *Eucalyptus longicornis*, *Eucalyptus sheatheana* and *Eucalyptus yilgarnensis*. The understorey consisted of a range of shrubs, principal amongst which were the *Eremophilas* and *Acacias*. The typical range of species found in the woodland understorey included *Eremophila scoparia*, *Eremophila ionantha*, *Eremophila granitica*, *Acacia jennerae*, *Acacia prainii*, *Acacia colletioides*, *Acacia tetragonophylla*, *Grevillea acuaria*, *Senna artemisioides* subsp. *filifolia*, *Olearia muelleri*, *Exocarpos aphyllus* and *Santalum acuminatum*. Chenopods, such as *Atriplex nummularia* and *Atriplex vesicaria*, together with *Maireana triptera* were common.

The other woodland communities contained species in common; however, a decision to differentiate these as separate vegetation groups was based on a combination of factors. These included:

1. An identifiable physical environment characteristic;
2. Restricted or unique *Eucalyptus* taxa present within the vegetation type;
3. Differentiation based on the type of woodland described;
4. Non-Eucalypt species found to be present; and
5. Differentiation based on particular soil characteristics.

The scrubland and thicket vegetation types recorded within the Carina Exploration Tenement were delineated from each other on the basis of characteristics applied to the woodland communities. All three vegetation types described as shrublands contained taxa unique to their vegetation type (Appendix D):

Several of the plant communities identified within the Carina Exploration Tenement overlap with components of the PECs (Department of the Environment, Water, Heritage and the Arts, 2008a; Department of Environment and Conservation, 2008e). The latter is reflected in Priority species and associated species that occur in association with the ironstone ridges and slopes. The significance of the latter will be clarified when the proposed extent of the mining operations and the associated mining areas are provided.

5.7 Condition of the Vegetation

The condition of the vegetation in the Carina Exploration Tenement is generally good, despite the gazing activities of rabbits and the presence of tracks. The condition rating is based on the definition of Keighery (1994).

Table 1: Summary of Vegetation Mapping Units recorded within the Carina Exploration Tenement

Mapping Code	Description
S1	Scrub of <i>Allocasuarina corniculata</i> , <i>Acacia sibina</i> , <i>Melaleuca hamata</i> , <i>Acacia resinimarginea</i> and occasional dense patches of <i>Callitris preissii</i> over <i>Baeckea elderiana</i> , <i>Phebalium canaliculatum</i> , <i>Thryptomene kochii</i> and <i>Hibbertia eatoniae</i> on sandy flats.
S2	Scrub of <i>Allocasuarina campestris</i> , <i>Casuarina pauper</i> , <i>Banksia arborea</i> , <i>Melaleuca hamata</i> , <i>Melaleuca nematophylla</i> , <i>Acacia sibina</i> , <i>Calycopeplus paucifolius</i> and <i>Brachychiton gregorii</i> over <i>Baeckea elderiana</i> and <i>Philotheca brucei</i> subsp. <i>brucei</i> and <i>Eremophila decipiens</i> subsp. <i>decipiens</i> , with emergent <i>Eucalyptus ewartiana</i> , <i>Eucalyptus horistes</i> and <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> on red-brown clay upper slopes and ridges.
S5	Scrub of <i>Allocasuarina campestris</i> over <i>Acacia tetragonophylla</i> and <i>Alyxia buxifolia</i> over <i>Melaleuca leiocarpa</i> , <i>Philotheca brucei</i> subsp. <i>brucei</i> , <i>Eremophila decipiens</i> subsp. <i>decipiens</i> and <i>Exocarpos aphyllus</i> over <i>Scaevola spinescens</i> , <i>Prostanthera grylloana</i> and <i>Phebalium megaphyllum</i> on red-brown clay with quartz pebbles on lower slopes.
W1	Woodland of <i>Eucalyptus salmonophloia</i> , <i>Eucalyptus salubris</i> , <i>Eucalyptus sheathiana</i> , <i>Eucalyptus corrugata</i> , <i>Eucalyptus yilgarnensis</i> , <i>Eucalyptus transcontinentalis</i> , <i>Eucalyptus longicornis</i> and <i>Eucalyptus ravida</i> over <i>Acacia jennerae</i> , <i>Acacia prainii</i> , <i>Acacia colletioides</i> , <i>Santalum acuminatum</i> , <i>Exocarpos aphyllus</i> , <i>Eremophila scoparia</i> , <i>Eremophila granitica</i> , <i>Eremophila ionantha</i> , <i>Senna artemisioides</i> subsp. <i>filifolia</i> and <i>Atriplex nummularia</i> over <i>Atriplex vesicaria</i> , <i>Grevillea acuaria</i> , <i>Olearia muelleri</i> , <i>Olearia pimelioides</i> and <i>Austrostipa elegantissima</i> on red-brown clay on flats.
W2	Woodland of <i>Eucalyptus salmonophloia</i> with <i>Eucalyptus ravida</i> and mixed Eucalypts over <i>Eremophila ionantha</i> , <i>Exocarpos aphyllus</i> , <i>Atriplex nummularia</i> and <i>Acacia colletioides</i> over <i>Atriplex vesicaria</i> on flat red clay soils.
W4	Woodland of <i>Eucalyptus longicornis</i> , <i>Eucalyptus salubris</i> , <i>Eucalyptus corrugata</i> and <i>Eucalyptus moderata</i> over <i>Eremophila ionantha</i> , <i>Eremophila scoparia</i> , <i>Senna artemisioides</i> subsp. <i>filifolia</i> , <i>Exocarpos aphyllus</i> , <i>Atriplex nummularia</i> and <i>Santalum acuminatum</i> over <i>Acacia colletioides</i> and <i>Atriplex vesicaria</i> on red-brown sandy clay flats with scattered ironstone and quartz pebbles.
W5	Woodland of <i>Eucalyptus longicornis</i> , <i>Eucalyptus salubris</i> , <i>Eucalyptus corrugata</i> , <i>Eucalyptus ravida</i> and <i>Eucalyptus moderata</i> over <i>Eremophila ionantha</i> , <i>Santalum acuminatum</i> and <i>Templetonia sulcata</i> over <i>Olearia muelleri</i> on clay-loam soils on lower slopes and flats.
W7	Woodland of <i>Eucalyptus yilgarnensis</i> , <i>Eucalyptus horistes</i> , <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> , <i>Eucalyptus transcontinentalis</i> and <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> over <i>Eremophila caperata</i> and <i>Acacia multispicata</i> and <i>Halgania andromedifolia</i> over <i>Triodia irritans</i> and <i>Amphipogon caricinus</i> on orange to yellow sandy clay soils on flats.
W11	Open Woodland of <i>Eucalyptus salmonophloia</i> over <i>Cratystylis subspinescens</i> over <i>Atriplex vesicaria</i> on red-brown clay flats.
W12	Open Woodland of <i>Eucalyptus sheathiana</i> , <i>Eucalyptus salubris</i> , <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> , <i>Eucalyptus ravida</i> and <i>Eucalyptus salmonophloia</i> over <i>Acacia burkittii</i> , <i>Eremophila ionantha</i> , <i>Senna artemisioides</i> subsp. <i>filifolia</i> and <i>Acacia colletioides</i> over <i>Grevillea acuaria</i> on red-brown clay to sandy clay on flats with scattered ironstone pebbles.
W13	Low Woodland of <i>Eucalyptus corrugata</i> and <i>Eucalyptus sheathiana</i> over <i>Acacia burkittii</i> , <i>Alyxia buxifolia</i> and <i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i> over <i>Ptilotus obovatus</i> var. <i>obovatus</i> , <i>Scaevola spinescens</i> and <i>Olearia muelleri</i> on flat red clay soils.

Table 1: Summary of Vegetation Mapping Units recorded along the proposed Carina Transport Route (Cont).

Mapping Code	Description
W14	Low Woodland of <i>Eucalyptus corrugata</i> and <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> over <i>Allocasuarina campestris</i> , <i>Acacia burkittii</i> , <i>Acacia sibina</i> and <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i> over <i>Phebalium canaliculatum</i> , <i>Olearia exiguifolia</i> , <i>Halgania andromedifolia</i> and <i>Baeckea elderiana</i> over <i>Triodia irritans</i> on orange-brown clay soils on flats.
W15	Low Woodland of <i>Eucalyptus corrugata</i> , <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> and <i>Eucalyptus longicornis</i> over <i>Acacia burkittii</i> , <i>Allocasuarina campestris</i> and <i>Exocarpos aphyllus</i> over <i>Senna artemisioides</i> subsp. <i>filifolia</i> , <i>Philotheca tomentella</i> , <i>Prostanthera grylloana</i> , <i>Templetonia sulcata</i> and <i>Philotheca brucei</i> subsp. <i>brucei</i> over <i>Grevillea acuaria</i> and <i>Scaevola spinescens</i> on red-brown clay soils on flats.
W16	Low Woodland of <i>Eucalyptus corrugata</i> , <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> and <i>Eucalyptus longicornis</i> over <i>Acacia colletioides</i> , <i>Acacia tetragonophylla</i> , <i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i> , <i>Exocarpos aphyllus</i> and <i>Eremophila ionantha</i> over <i>Scaevola spinescens</i> over <i>Amphipogon caricinus</i> on orange clay soils on lower slope and flats.
W17	Low Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over <i>Acacia burkittii</i> , <i>Phebalium canaliculatum</i> , <i>Philotheca brucei</i> subsp. <i>brucei</i> , <i>Eremophila granitica</i> and <i>Baeckea elderiana</i> over <i>Scaevola spinescens</i> and <i>Prostanthera grylloana</i> on orange-brown sandy clay flats.
W18	Low Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over <i>Acacia burkittii</i> , <i>Acacia resinimarginea</i> and <i>Leptospermum ?fastigiatum</i> over <i>Phebalium filifolium</i> and <i>Westringia cephalantha</i> over <i>Triodia irritans</i> and <i>Amphipogon caricinus</i> on orange-brown clay flats with soils with ironstone pebbles.
W19	Low Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> and <i>Eucalyptus corrugata</i> over <i>Acacia ramulosa</i> , <i>Melaleuca leiocarpa</i> and <i>Acacia burkittii</i> over <i>Olearia muelleri</i> over <i>Amphipogon caricinus</i> on red-brown clay flats with mafic schist rocks and ironstone pebbles.
W20	Low Woodland of <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> , <i>Eucalyptus sheathiana</i> , <i>Eucalyptus corrugata</i> and <i>Eucalyptus longicornis</i> and mixed Eucalypts over <i>Eremophila scoparia</i> , <i>Eremophila ionantha</i> and <i>Acacia burkittii</i> over <i>Atriplex vesicaria</i> and <i>Olearia muelleri</i> on red-brown clay flats.
W21	Open Low Woodland of <i>Eucalyptus capillosa</i> subsp. <i>capillosa</i> , <i>Eucalyptus corrugata</i> , <i>Eucalyptus delicata</i> and <i>Eucalyptus longicornis</i> over <i>Eremophila ionantha</i> , <i>Senna artemisioides</i> subsp. <i>filifolia</i> , <i>Acacia colletioides</i> and <i>Eremophila scoparia</i> over <i>Olearia muelleri</i> and <i>Atriplex vesicaria</i> on red-brown sandy clay flats.
W22	Open Low Woodland of <i>Eucalyptus corrugata</i> with mixed Eucalypts over <i>Allocasuarina campestris</i> and <i>Acacia burkittii</i> over <i>Alyxia buxifolia</i> , <i>Philotheca brucei</i> subsp. <i>brucei</i> and <i>Isopogon gardneri</i> over <i>Scaevola spinescens</i> and <i>Olearia muelleri</i> on red-brown clays soils on mid and lower slopes.
W23	Open Low Woodland of <i>Eucalyptus corrugata</i> and <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over <i>Melaleuca hamata</i> <i>Acacia sibina</i> and <i>Acacia resinimarginea</i> over <i>Baeckea elderiana</i> , <i>Grevillea georgeana</i> (P3) and <i>Malleostemon roseus</i> on red-brown clay soils on lower slopes and flats.
W24	Open Low Woodland of <i>Eucalyptus corrugata</i> , <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> , <i>Eucalyptus salubris</i> , <i>Eucalyptus pileata</i> and mixed Eucalypts over <i>Acacia burkittii</i> , occasional patches of <i>Callitris preissii</i> over <i>Phebalium filifolium</i> , <i>Prostanthera grylloana</i> over <i>Grevillea acuaria</i> and <i>Triodia irritans</i> on red to yellow sandy clay flats.
W25	Open Low Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over <i>Allocasuarina campestris</i> , <i>Acacia tetragonophylla</i> and <i>Acacia assimilis</i> over <i>Philotheca brucei</i> subsp. <i>brucei</i> , <i>Grevillea georgeana</i> (P3) and <i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207) over <i>Scaevola spinescens</i> and <i>Prostanthera grylloana</i> on red-brown clay-loam lower slopes with scattered quartz pebbles.
W26	Open Low Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over <i>Acacia burkittii</i> , <i>Acacia tetragonophylla</i> , <i>Santalum spicatum</i> and <i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i> over <i>Olearia pimeleoides</i> and <i>Scaevola spinescens</i> on red-brown clay-loam on lower slopes and flats.
W27	Open Low Woodland of <i>Eucalyptus yilgarnensis</i> and <i>Eucalyptus horistes</i> over <i>Hakea francisiana</i> , <i>Acacia sibina</i> and <i>Allocasuarina corniculata</i> over <i>Verticordia ?helmsii</i> , <i>Leucopogon</i> sp. ?Coolgardie (M.Hislop & F.Hort MH 3197) over <i>Triodia ?desertorum</i> on yellow sandy flats.

6. DISCUSSION

The Carina Exploration Tenement lies wholly within the Coolgardie Botanical District, as defined by Beard (1972; 1990). This corresponds with the Coolgardie 2 Bioregion (COO2 – Southern Cross subregion) as defined by the Interim Biogeographical Regionalisation for Australia (IBRA) (Cowan *et al.* 2001). The Coolgardie District experienced below average rainfall in the five months that preceded the month in which this survey was conducted (Bureau of Meteorology 2008). Compared to the long-term average for the district, the Coolgardie district received 85% of the average rainfall for the months February 2008 – June 2008. The present survey work was carried out in July 2008 and it is likely that there was a good representation of annual flora due to the combination of near average rainfall and the season during which the survey was undertaken.

The 237 taxa recorded during the survey, represent taxa previously reported by others as being typical of taxa found in the Coolgardie District (Gibson & Lyon 1997a, 1997b, 1997c, 2001; Gibson *et al.* 1997, 2007; Mattiske 2008a). In addition, the majority of the taxa recorded during the present survey have previously been recorded during surveys of Polaris Metals tenements by Mattiske Consulting Pty. Ltd. (2007 a; b; c; d; e; f, 2008a; b; c; d; e; f; g; h, i). The results of the survey of the proposed Carina Tenement are consistent with taxa which would be expected to be encountered in a survey of this area.

No plant taxa gazetted as Declared Rare Flora pursuant to subsection (2) of section 23F of the *Wildlife Conservation Act 1950* (WA) (Department of Environment and Conservation, 2008f) or listed as Threatened pursuant to Schedule 1 of the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (Department of the Environment, Water, Heritage and the Arts 2008b) were recorded during the survey within the Carina Exploration Tenement.

Six plant taxa listed as a Priority species by the Department of Environment and Conservation (2008d) were recorded within the Carina Exploration Tenement. These six species were *Pseudactinia* sp. Bungalbin Hill (F.H. & M.P. Molemans 3069) (P1), *Acacia crenulata* (P3), *Acacia eremophila* var. *variabilis* (P3), *Grevillea georgeana* (P3), *Spartothamnella* sp. Helena and Aurora Range (P3) and *Daviesia purpurascens* (P4). In addition, one new undescribed species of *Acacia* was recorded in the Carina Exploration Tenement. This latter new species was confirmed by the *Acacia* expert, Dr Bruce Maslin.

In terms of potential impact, it is difficult at this juncture to discuss implications of the proposed Carina mine as no foot print was available at this juncture to assess the likely impacts on the Priority flora, the new undescribed species of *Acacia* and the communities that support species that are restricted to ironstone areas.

Two introduced (exotic) species were recorded within the proposed Carina Exploration Tenement. The taxa were *Erodium cicutarium* and *Erodium botrys*. The presence of rabbits in the area would not assist in the management of these species as there is potential to spread seed in wider areas through their activities.

Beard (1972) described the woodland communities of the area as a *Eucalyptus salmonophloia* – *Eucalyptus salubris* association, together with *Eucalyptus sheathiana*, *Eucalyptus longicornis*, *Eucalyptus corrugata*, *Eucalyptus gracilis* and *Eucalyptus oleosa*. The understorey, according to Beard (1972) is described as a Broombrush understorey. Whilst Beard's (1972) mapping was at a scale of 1:250,000, the survey data for the Carina Tenement in general terms reflects Beard's historic data. More recent floristic surveys of the area by Gibson and Lyons (1997a; 1997c) also reflect the vegetation community types reported for the Carina area.

Beard (1972) also described scrub and thicket communities in the area, which were composed of species, which have been recorded during the vegetation survey for the proposed Carina Tenement area. These include the taxa *Acacia burkittii*, *Acacia resinimarginea*, *Acacia quadrimarginea*, together with *Hakea preissii* and *Brachychiton gregorii*. In addition, more recent surveys, such as that of Gibson and Lyons (1997a; 1997c), provide additional data, which supports the proposal that, the vegetation recorded during the present survey is consistent with that which has been previously observed and recorded.

Gibson *et al.* (1997) highlighted two main communities on the ridge tops and upper slopes of the Helena and Aurora Range. To enable a comparison of data from Gibson *et al.* (1997) with some of the banded iron formations, PATN analyses with the presence data from the community types as defined by Gibson *et al.* (1997) was undertaken with the results from the botanical assessment of the Carina Exploration Tenement. As needed taxonomic names were updated in line with recent changes and where subspecies or varieties were defined then these were considered to be comparable with those defined by the Mattiske team. These analyses reflect that there is some overlap between the S2 community and the community types G1 and G2 as defined by Gibson *et al.* (1997) (delineated as 1 and 2 types in the Gibson *et al.* 1997 article), Appendix G. The latter raises a range of issues associated with the PEC Helena and Aurora community as defined by the Department of Environment and Conservation (2008e). The G6 (community type 6 as defined by Gibson *et al.* (1997) also was slightly aligned with W11. The woodland communities appeared to be more distinct from the Gibson communities.

The S2 community is therefore represented south of the proposed disturbance area. Further the Priority species (*Grevillea georgeana* (P3) and *Daviesia purpurascens* (P4)) that occur within the proposed mining area also occur in other areas that will not be disturbed. The undescribed and new species of *Acacia* sp. nov was recorded on the southern occurrence of the S2 community. Despite searching in the proposed mining area no plants of this new species were recorded in the northern occurrence of the S2 community. Therefore it is unlikely that the disturbance of the northern communities as highlighted will influence overall conservation status of the two Priority species recorded within the proposed mining areas.

The proposed mining area (Figure 1) overlaps a section of S2, W2, W4, W12 and W22. An analysis of the proportion of these respective communities that may be disturbed is summarized in the Table 2.

Table 2: Review of the Potential Impact of Disturbance from Proposed Mining Activities on the Respective Plant Communities

Plant Community	Area in Proposed Mining (ha)	Area in Carina Tenement Area (ha)	% of Extent in Proposed Mining Envelope
S2	8.63	113.70	7.59%
W2	64.37	4898.42	1.31%
W4	14.19	1470.61	0.96%
W12	20.27	721.18	2.81%
W22	109.50	543.93	20.13%
Total	216.96	20364.54	1.06%

7. RECOMMENDATIONS

The following recommendations are proposed to reduce the disturbance to the surrounding area:

- Ground disturbance and clearing of vegetation should be limited to that which is essential;
- Maintain standard vehicle hygiene practices to minimise the risk of spreading introduced (exotic) weeds;
- Retain and stockpile topsoil for use in the later rehabilitation of roads and other areas cleared in the process of mining;
- Maintain existing drainage systems, i.e. do not allow roads etc. to disrupt or divert historic water flow patterns. Where drainage systems are interrupted by road works, the use of culverts to assist in maintaining natural water flow patterns should be implemented;
- Avoid driving vehicles across undisturbed ground;
- Negotiate rabbit control with the Department of Environment and Conservation officers.
- The creation of new tracks should be restricted to that which is absolutely necessary, ensuring equipment blades are set above ground level to minimize disturbance to topsoil, rootstock and to reduce soil erosion.

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10. REFERENCES

Agricultural and Related Resources Protection Act 1976

Beard, J.S. (1972) *Vegetation Survey of Western Australia. The Vegetation of the Jackson Area. Explanatory Notes and Map Sheet, 1:250000 series. Vegetation Survey of Western Australia.* Vegmap Publications, Sydney.

Beard, J.S. (1990) *Plant Life of Western Australia.* Kangaroo Press, Kenthurst NSW.

Bureau of Meteorology (2008) *Climate statistics for Australian locations. Summary statistics for Southern Cross*, viewed 22nd August 2008.
http://www.bom.gov.au/climate/averages/tables/cw_012074.shtml

Cowan, M., Graham, G., McKenzie, N. (2001) Coolgardie 2 (COO2 – Southern Cross subregion). In: Department of Conservation and Land Management (Ed.) *A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002*, pp. 143 - 154. Department of Conservation and Land Management, Perth.

Department of Agriculture and Food (2008) *Declared Plants List*, viewed 22nd August 2008.
http://agspsrv95.agric.wa.gov.au/dps/version02/01_plantsearch.asp

Department of Conservation and Land Management (2003) *A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002.* Department of Conservation and Land Management, Perth.

- Department of Environment and Conservation (2007) *Banded Ironstone Formation Ranges of the Midwest and Goldfields. Interim Status Report. Biodiversity Values and Conservation Requirement*. Department of Environment and Conservation, Perth.
- Department of Environment and Conservation (2008a) *List of threatened ecological communities (endorsed by the Minister – Dec 2006)*, viewed 22nd August 2008.
http://www.naturebase.net/component/option,com_docman/Itemid,708/task,doc_download/gid,2162/
- Department of Environment and Conservation (2008b) *Western Australian Flora Conservation Taxa*, viewed 22nd August 2008. <http://florabase.calm.wa.gov.au/conservationtaxa>
- Department of Environment and Conservation (2008c) *Definitions, categories and criteria for threatened and priority ecological communities*, viewed 22nd August 2008.
www.naturebase.net/component/option,com_docman/task,doc_download/gid,402/
- Department of Environment and Conservation (2008d) *Florabase, the Western Australian flora*, viewed 22nd August 2008. <http://florabase.calm.wa.gov.au>
- Department of Environment and Conservation (2008e) *Priority ecological communities for Western Australia*, viewed 22nd August 2008.
http://www.naturebase.net/component/option,com_docman/Itemid,708/task,doc_download/gid,2164/
- Department of Environment and Conservation (2008f) *List of declared rare flora (endorsed by the Minister – January 2008)*, viewed 22nd August 2008.
http://www.naturebase.net/component/option,com_docman/Itemid,708/task,doc_download/gid,2125/
- Department of the Environment, Water, Heritage and the Arts (2008a) *Environment Protection and Biodiversity Conservation Act 1999 List of Threatened Ecological Communities*, viewed 22nd August 2008.
<http://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl>
- Department of the Environment, Water, Heritage and the Arts (2008b) *Environment Protection and Biodiversity Conservation Act 1999 List of Threatened Flora*, viewed 22nd August 2008.
<http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora>
- English, V. and Blyth, J. (1997) *Identifying and Conserving Threatened Ecological Communities in the South West Botanical Province*. Project N702, Final Report to Environment Australia. Department of Conservation and Land Management. Perth, Western Australia.
- English, V. and Blyth, J. (1999) *Development and Application of Procedures to Identify and Conserve Threatened Ecological Communities in the South-west Botanical Province of Western Australia* Pacific Conservation Biology, Vol. 5, 124-138.
- Environmental Protection Act 1986* [WA]
- Environment Protection and Biodiversity Conservation Act 1999* [Commonwealth]
- Environmental Protection (Clearing of Native Vegetation) Regulations 2004* [WA]
- Environmental Protection Authority (2004) *Guidance for the Assessment of Environmental Factors: Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia*. No 51, viewed 22nd August 2008. www.epa.wa.gov.au/docs/1839_GS51.pdf

- Environmental Protection Authority (2007) *Advice on areas of the highest conservation value in the proposed extensions to Mount Manning Nature Reserve*. Advice of the Environmental Protection Authority to the Minister for the Environment under Section 16(e) of the *Environmental Protection Act 1986*. Bulletin 1256. Environmental Protection Authority, Perth, viewed 22nd August 2008.
http://www.epa.wa.gov.au/docs/2500_B1256.pdf
- Gibson, N. and Lyons, M.J. (1997a) *Floristic survey of the Mount Manning Range of the Eastern Goldfields of Western Australia*. Unpublished report for the Australian Heritage Commission prepared by Department of Conservation and land Management, 1997.
- Gibson, N. and Lyons, M.J. (1997b) *Floristic survey of the Highclere Hills of the Eastern Goldfields of Western Australia*. Unpublished report for the Australian Heritage Commission prepared by Department of Conservation and land Management, 1997.
- Gibson, N. and Lyons, M.J. (1997c) *Floristic survey of the Hunt Range, Yendilberin and Watt Hills of the Eastern Goldfields of Western Australia*. Unpublished report for the Australian Heritage Commission prepared by Department of Conservation and land Management, 1997.
- Gibson, N. and Lyons, M. N. (2001) Flora and Vegetation of the Eastern Goldfields Ranges: Part 5. Hunt Range, Yendilberin and Watt Hills. *Journal of the Royal Society of Western Australia*, 84: 129 – 141.
- Gibson, N., Lyons, M.J. and Lepschi, B.J. (1997)
Flora and vegetation of the eastern goldfield ranges, Part I: Helena and Aurora Range. CALMScience, Vol. 2, 231-246.
- Gibson, N., Coates, D.J. and Thiele, K.R. (2007)
Taxonomic Research and the Conservation Status of Flora in the Yilgarn Banded Iron Formation Ranges. *Nuytsia* 17: 1-12.
- Hopper, S.D., Gioia, P. 2004. The Southwest Australian Floristic Region: Evolution and conservation of a global hot spot of biodiversity. *Annual Review of Ecology and Systematics* 35: 623-650.
- Hussey, B.M.J., Keighery, G.J., Dodd, J., Lloyd, S.G. and Cousens, R.D. (2007) *Western Weeds*, Second Ed., The Weeds Society of Western Australia, Perth.
- Keighery, B.J. (1994) *Vegetation and Flora Report for System Six Proposed Reserve-M53*. Unpublished report for the Department of Environment protection, Perth, Western Australia.
- Mattiske Consulting Pty. Ltd. (2007a)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/1115: Carina Prospect. Unpublished report prepared for Polaris Metals NL. October 2007.
- Mattiske Consulting Pty. Ltd. (2008)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/1115: Carina Prospect. Unpublished report prepared for Polaris Metals NL. October 2007.
- Mattiske Consulting Pty. Ltd. (2007b)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/946-I Chameleon Prospect. Unpublished report for Polaris Metals NL. October 2007.
- Mattiske Consulting Pty. Ltd. (2007c)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/1097-I Musca and J4-Extension Prospects. Unpublished report for Polaris Metals NL. October 2007.
- Mattiske Consulting Pty. Ltd. (2007d)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/1076-I Vela Prospect. Unpublished report for Polaris Metals NL. October 2007.

- Mattiske Consulting Pty. Ltd. (2007e)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/842-I Bungalbin Eastern Prospect. Unpublished report for Polaris Metals NL.
- Mattiske Consulting Pty. Ltd. (2007f)
Flora and vegetation for the proposed location for the Bungalbin Camp site. Unpublished report for Polaris Metals NL. December 2007.
- Mattiske Consulting Pty Ltd (2008a)
Flora and Vegetation Yilgarn Iron Ore Project Exploration Land Management and Rehabilitation Recommendations. Unpublished report prepared for Polaris Metals NL. April 2008.
- Mattiske Consulting Pty. Ltd. (2008b)
Flora and vegetation surveys of infill drill hole sites in Exploration Tenement E77/1115: Carina Prospect. Unpublished report prepared for Polaris Metals NL. February 2008.
- Mattiske Consulting Pty. Ltd. (2008c)
Flora and vegetation survey of existing tracks in Exploration Tenement E77/842-I Bungalbin Eastern Prospect. Unpublished report for Polaris Metals NL. March 2008.
- Mattiske Consulting Pty. Ltd. (2008d)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/842-1: J5 prospect. Unpublished report prepared for Polaris Metals NL. April 2008.
- Mattiske Consulting Pty. Ltd. (2008e)
Flora and vegetation survey of drill hole sites in Exploration Tenement E77/842-1: Bungalbin Central prospect. Unpublished report prepared for Polaris Metals NL. June 2008.
- Mattiske Consulting Pty. Ltd. (2008f)
Flora and vegetation survey of infill drill hole sites in Exploration Tenement E77/842-1: Bungalbin Eastern prospect. Unpublished report prepared for Polaris Metals NL. May 2008.
- Mattiske Consulting Pty. Ltd. (2008g)
Flora and vegetation survey of infill drill hole sites in Exploration Tenement E77/1097-1: J4 prospect. Unpublished report prepared for Polaris Metals NL. June 2008.
- Mattiske Consulting Pty. Ltd. (2008h)
Flora and vegetation survey of infill drill hole sites in Exploration Tenement E77/1097-1: Musca prospect. Unpublished report prepared for Polaris Metals NL. June 2008.
- Mattiske Consulting Pty. Ltd. (2008i)
Flora and vegetation of the proposed Carina Transport Route. Unpublished report prepared for Polaris Metals NL. September 2008.
- Wildlife Conservation Act 1950.* [WA]

APPENDIX A1: DEFINITION OF RARE AND PRIORITY FLORA SPECIES (Department of Environment and Conservation 2008b)

Conservation Code	Category
R	Declared Rare Flora – Extant Taxa “Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection and have been gazetted as such.”
P1	Priority One – Poorly Known Taxa “Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat. Such taxa are under consideration for declaration as ‘rare flora’, but are in urgent need of further survey.”
P2	Priority Two – Poorly Known Taxa “Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as ‘rare flora’, but urgently need further survey.”
P3	Priority Three – Poorly Known Taxa “Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as ‘rare flora’ but need further survey.”
P4	Priority Four – Rare Taxa “Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.”

APPENDIX A2: DEFINITION OF THREATENED FLORA SPECIES (*Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)*)

Category Code	Category
Ex	Extinct Taxa which at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died.
ExW	Extinct in the Wild Taxa which is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
CE	Critically Endangered Taxa which at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
E	Endangered Taxa which is not critically endangered and it is facing a very high risk of extinction in the wild in the immediate or near future, as determined in accordance with the prescribed criteria.
V	Vulnerable Taxa which is not critically endangered or endangered and is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
CD	Conservation Dependent Taxa which at a particular time if, at that time, the species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

APPENDIX A3: DEFINITION OF THREATENED ECOLOGICAL COMMUNITIES (Department of Environment and Conservation 2008d)

Category Code	Category
PTD	Presumed Totally Destroyed An ecological community will be listed as Presumed Totally Destroyed if there are no recent records of the community being extant and either of the following applies: (i) records within the last 50 years have not been confirmed despite thorough searches or known likely habitats or; (ii) all occurrences recorded within the last 50 years have since been destroyed.
CE	Critically Endangered An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future, meeting any one of the following criteria: (i) The estimated geographic range and distribution has been reduced by at least 90% and is either continuing to decline with total destruction imminent, or is unlikely to be substantially rehabilitated in the immediate future due to modification; (ii) The current distribution is limited ie. highly restricted, having very few small or isolated occurrences, or covering a small area; (iii) The ecological community is highly modified with potential of being rehabilitated in the immediate future.
E	Endangered An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. The ecological community must meet any one of the following criteria: (i) The estimated geographic range and distribution has been reduced by at least 70% and is either continuing to decline with total destruction imminent in the short term future, or is unlikely to be substantially rehabilitated in the short term future due to modification; (ii) The current distribution is limited ie. highly restricted, having very few small or isolated occurrences, or covering a small area; (iii) The ecological community is highly modified with potential of being rehabilitated in the short term future.
V	Vulnerable An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing high risk of total destruction in the medium to long term future. The ecological community must meet any one of the following criteria: (i) The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated; (ii) The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution; (iii) The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.

APPENDIX A4: DEFINITION OF PRIORITY ECOLOGICAL COMMUNITIES (Department of Environment and Conservation 2008d)

Category Code	Category
P1	Poorly-known ecological communities Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist.
P2	Poorly-known ecological communities Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, un-allocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation.
P3	Poorly known ecological communities (i) Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or: (ii) Communities known from a few widespread occurrences, which are either large or within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or; (iii) Communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing and inappropriate fire regimes.
P4	Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. These communities require regular monitoring.
P5	Conservation Dependent ecological communities Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
ADIANTACEAE	<i>Cheilanthes adiantoides</i> <i>Cheilanthes brownii</i> <i>Cheilanthes lasiophylla</i>
CUPRESSACEAE	<i>Callitris canescens</i> <i>Callitris preissii</i>
POACEAE	<i>Amphipogon caricinus</i> ? <i>Amphipogon caricinus</i> <i>Aristida holathera</i> var. <i>holathera</i> <i>Austrostipa elegantissima</i> ? <i>Austrostipa nitida</i> <i>Austrostipa platychaeta</i> <i>Austrostipa</i> sp. <i>Eragrostis dielsii</i> <i>Triodia</i> ? <i>desertorum</i> <i>Triodia irritans</i> <i>Poaceae</i> sp.
CYPERACEAE	<i>Lepidosperma</i> ? <i>bungalbin</i>
DASYPOGONACEAE	<i>Chamaexeros macranthera</i> <i>Lomandra effusa</i>
PHORMIACEAE	<i>Dianella revoluta</i>
ANTHERICACEAE	<i>Thysanotus patersonii</i>
COLCHICACEAE	<i>Wurmbea tenella</i>
BORYACEAE	<i>Borya constricta</i>
CASUARINACEAE	<i>Allocasuarina campestris</i> <i>Allocasuarina corniculata</i> <i>Allocasuarina helmsii</i> <i>Casuarina obesa</i> <i>Casuarina pauper</i>
PROTEACEAE	<i>Banksia arborea</i> <i>Grevillea acuaria</i> <i>Grevillea georgeana</i> (P3) <i>Grevillea huegelii</i> <i>Grevillea juncifolia</i> <i>Grevillea nematophylla</i> subsp. <i>nematophylla</i> <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i> <i>Grevillea zygaloba</i> <i>Hakea francisiana</i> <i>Hakea</i> ? <i>recurva</i>

**APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY
SITES WITHIN EXPLORATION TENEMENT E77/1115**

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
	<i>Persoonia coriacea</i>
	<i>Proteaceae</i> sp.

APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
SANTALACEAE	<i>Exocarpos aphyllus</i> <i>Santalum acuminatum</i> <i>Santalum spicatum</i>
LORANTHACEAE	<i>Amyema benthamii</i> <i>Amyema miquelii</i> <i>Lysiana casuarinae</i>
CHENOPODIACEAE	<i>Atriplex nummularia</i> <i>Atriplex vesicaria</i> <i>?Dissocarpus paradoxus</i> <i>Enchylaena lanata</i> <i>Maireana tomentosa</i> <i>Maireana trichoptera</i> <i>Maireana triptera</i> <i>Rhagodia drummondii</i> <i>Rhagodia spinescens</i> <i>Sclerolaena diacantha</i> <i>?Sclerolaena diacantha</i> <i>Sclerolaena fusiformis</i>
AMARANTHACEAE	<i>Ptilotus carlsonii</i> <i>Ptilotus drummondii</i> <i>Ptilotus exaltatus</i> var. <i>exaltatus</i> <i>Ptilotus helipteroides</i> var. <i>helipteroides</i> <i>Ptilotus holosericeus</i> <i>Ptilotus obovatus</i> var. <i>obovatus</i>
GYROSTEMONACEAE	<i>Codonocarpus cotinifolius</i>
LAURACEAE	<i>Cassytha melantha</i>
DROSERACEAE	<i>Drosera</i> sp.
PITTOSPORACEAE	<i>Pittosporum angustifolium</i>
MIMOSACEAE	<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i> <i>Acacia andrewsii</i> <i>Acacia aneura</i> var. <i>aneura</i> <i>Acacia assimilis</i> <i>Acacia assimilis</i> subsp. <i>assimilis</i> <i>Acacia burkittii</i> <i>Acacia colletioides</i> <i>Acacia coolgardiensis</i> <i>Acacia crenulata</i> (P3) <i>Acacia eremophila</i> var. <i>variabilis</i> (P3) <i>Acacia erinacea</i> <i>Acacia ?graniticola</i>

**APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY
SITES WITHIN EXPLORATION TENEMENT E77/1115**

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
	<i>Acacia jennerae</i>

APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
MIMOSACEAE	<i>Acacia merrallii</i>
(continued)	<i>Acacia minyura</i>
	<i>Acacia multispicata</i>
	<i>Acacia prainii</i>
	<i>Acacia quadrimarginea</i>
	<i>Acacia ramulosa</i>
	<i>Acacia resinimarginea</i>
	<i>Acacia ?rigens</i>
	<i>Acacia sibina</i>
	<i>Acacia tetragonophylla</i>
	<i>Acacia</i> undescribed (B.Maslin)
	<i>Acacia yorkrakinensis</i>
	<i>Acacia</i> sp.
CAESALPINIACEAE	<i>Senna artemisioides</i> subsp. <i>filifolia</i>
PAPILIONACEAE	<i>Bossiaea walkeri</i>
	<i>Daviesia benthamii</i> subsp. <i>acanthoclona</i>
	<i>Daviesia purpurascens</i> (P4)
	<i>Glycyrrhiza acanthocarpa</i>
	<i>Mirbelia microphylla</i>
	<i>Swainsona colutoides</i>
	<i>Templetonia sulcata</i>
GERANIACEAE	* <i>Erodium botrys</i>
	* <i>Erodium cicutarium</i>
ZYGOPHYLLACEAE	<i>Zygophyllum apiculatum</i>
	<i>Zygophyllum ?compressum</i>
	<i>Zygophyllum iodocarpum</i>
	<i>Zygophyllum</i> sp. (juv)
RUTACEAE	<i>Phebalium canaliculatum</i>
	<i>Phebalium filifolium</i>
	<i>Phebalium lepidotum</i>
	<i>Phebalium megaphyllum</i>
	<i>Phebalium tuberosum</i>
	<i>Philotheca brucei</i> subsp. <i>brucei</i>
	<i>Philotheca rhomboidea</i>
	<i>Philotheca tomentella</i>
POLYGALACEAE	<i>Comesperma ?volubile</i>
EUPHORBIACEAE	<i>Beyeria brevifolia</i>
	<i>Beyeria brevifolia</i> var. <i>robustior</i>
	<i>Beyeria calycina</i> var. <i>minor</i>
	<i>Calycopeplus paucifolius</i>
	<i>Euphorbia drummondii</i>

APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
SAPINDACEAE	<i>Diplopeltis huegelii</i> <i>Dodonaea lobulata</i> <i>Dodonaea microzyga</i> var. <i>acrolobata</i> <i>Dodonaea stenozyga</i> <i>Dodonaea viscosa</i> subsp. <i>angustissima</i> <i>Dodonaea viscosa</i> subsp. <i>mucronata</i>
RHAMNACEAE	<i>Cryptandra aridicola</i> <i>Stenanthemum stipulosum</i>
MALVACEAE	<i>Hibiscus sturtii</i> <i>Radyera farragei</i> <i>Sida intricata</i> <i>Sida spodochroma</i>
STERCULIACEAE	<i>Brachychiton gregorii</i> <i>Keraudrenia velutina</i> subsp. <i>elliptica</i>
DILLENIACEAE	<i>Hibbertia eatoniae</i>
VIOLACEAE	<i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>
THYMELIACEAE	<i>Pimelea microcephala</i> subsp. <i>microcephala</i>
MYRTACEAE	<i>Baeckea crispiflora</i> <i>Baeckea elderiana</i> <i>Baeckea muricata</i> <i>Calothamnus gilesii</i> <i>Eucalyptus capillosa</i> subsp. <i>capillosa</i> <i>Eucalyptus celastroides</i> subsp. <i>celastroides</i> <i>Eucalyptus celastroides</i> subsp. <i>virella</i> <i>Eucalyptus corrugata</i> <i>Eucalyptus delicata</i> <i>Eucalyptus ebbanoensis</i> <i>Eucalyptus ewartiana</i> <i>Eucalyptus gracilis</i> <i>Eucalyptus griffithsii</i> <i>Eucalyptus horistes</i> <i>Eucalyptus leptopoda</i> subsp. <i>subluta</i> <i>Eucalyptus longicornis</i> <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> <i>Eucalyptus loxophleba</i> subsp. <i>supralaevis</i> <i>Eucalyptus moderata</i> <i>Eucalyptus oleosa</i> subsp. <i>oleosa</i> <i>Eucalyptus pileata</i> <i>Eucalyptus platycorys</i> <i>Eucalyptus ravida</i> <i>Eucalyptus salmonophloia</i>

**APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY
SITES WITHIN EXPLORATION TENEMENT E77/1115**

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
	<i>Eucalyptus</i> sp.

APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
MYRTACEAE	<i>Eucalyptus stricklandii</i>
(continued)	<i>Eucalyptus transcontinentalis</i>
	<i>Eucalyptus trichopoda</i>
	<i>Eucalyptus yilgarnensis</i>
	<i>Euryomyrtus maidenii</i>
	<i>Leptospermum ?fastigiatum</i>
	<i>Malleostemon roseus</i>
	<i>Melaleuca eleuterostachya</i>
	<i>Melaleuca hamata</i>
	<i>Melaleuca leiocarpa</i>
	<i>Melaleuca nematophylla</i>
	<i>Melaleuca uncinata</i> (complex)
	<i>Melaleuca vinnula</i>
	<i>Rinzia carnosa</i>
	<i>Thryptomene kochii</i>
	<i>Verticordia ?helmsii</i>
HALORAGACEAE	<i>Glischrocaryon aureum</i>
	<i>Gonocarpus confertifolius</i> var. <i>confertifolius</i>
	<i>Haloragis gossei</i>
EPACRIDACEAE	<i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207)
	<i>Leucopogon</i> ?sp. Coolgardie (M. Hislop & F. Hort MH 3197)
	<i>Pseudactinia</i> sp. Bungalbin Hill (F. H. & M. P. Molemans 3069) (P1)
APOCYNACEAE	<i>Alyxia buxifolia</i>
BORAGINACEAE	<i>Halgania andromedifolia</i>
LAMIACEAE	<i>Hemigenia</i> sp. Sticky Terete (B. H. Smith 449)
	<i>Hemiphora elderi</i>
	<i>Lachnostachys coolgardiensis</i>
	<i>Physopsis viscida</i>
	<i>Prostanthera campbellii</i>
	<i>Prostanthera grylloana</i>
	<i>Spartothamnella</i> sp. Helena and Aurora Range (P3)
	<i>Westringia cephalantha</i>
	<i>Westringia rigida</i>
SOLANACEAE	<i>Solanum hoplopetalum</i>
	<i>Solanum lasiophyllum</i>
	<i>Solanum nummularium</i>
	<i>Solanum orbiculatum</i> subsp. <i>orbiculatum</i>
	<i>Solanum plicatile</i>
MYOPORACEAE	<i>Eremophila alternifolia</i>
	<i>Eremophila caperata</i>
	<i>Eremophila decipiens</i>

**APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY
SITES WITHIN EXPLORATION TENEMENT E77/1115**

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
	<i>Eremophila granitica</i>

**APPENDIX B: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY
SITES WITHIN EXPLORATION TENEMENT E77/1115**

Note: * denotes introduced species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC, 2008a)

Family	Species
MYOPORACEAE	<i>Eremophila interstans</i>
(continued)	<i>Eremophila interstans</i> subsp. <i>interstans</i>
	<i>Eremophila interstans</i> subsp. <i>virgata</i>
	<i>Eremophila ionantha</i>
	<i>Eremophila latrobei</i> subsp. <i>latrobei</i>
	<i>Eremophila maculata</i> subsp. <i>brevifolia</i>
	<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>
	<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>
	<i>Eremophila scoparia</i>
GOODENIACEAE	<i>Dampiera eriocephala</i>
	<i>Goodenia elderi</i>
	<i>Scaevola spinescens</i>
	<i>Velleia connata</i>
STYLIDIACEAE	<i>Stylidium dielsianum</i>
ASTERACEAE	<i>Cratystylis subspinescens</i>
	<i>Olearia exiguiifolia</i>
	<i>Olearia muelleri</i>
	<i>Olearia pimeleoides</i>
	<i>Podolepis capillaris</i>
	<i>Schoenia</i> sp.
	<i>Streptoglossa liatroides</i>
	Asteraceae sp.

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE																									
	1	A01	A02	A03	A04	A05	A06	A07	A08	A09	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22			
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>																										
<i>Acacia andrewsii</i>																										
<i>Acacia aneura</i> var. <i>aneura</i>																										
<i>Acacia assimilis</i>																										
<i>Acacia assimilis</i> subsp. <i>assimilis</i>																										
<i>Acacia burkittii</i>			X	X	X	X	X		X			X	X	X			X		X	X				X		
<i>Acacia colletioides</i>		X	X	X	X		X	X			X															
<i>Acacia coolgardiensis</i>																										
<i>Acacia crenulata</i> (P3)	x																									
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)																										
<i>Acacia erinacea</i>				X					X	X		X	X				X		X					X		
<i>Acacia ?graniticola</i>								X																		
<i>Acacia hemiteles</i>																										
<i>Acacia inceana</i> subsp. <i>conformis</i>								X																		
<i>Acacia jennerae</i>																										
<i>Acacia merrallii</i>																										
<i>Acacia minyura</i>																										
<i>Acacia multispicata</i>																										
<i>Acacia prainii</i>																										
<i>Acacia quadrimarginea</i>																X										
<i>Acacia ramulosa</i>																										
<i>Acacia resinimarginea</i>	x					X																				
<i>Acacia ?rigens</i>																										
<i>Acacia sibina</i>													X	X	X	X		X			X					
<i>Acacia sp.</i>																										
<i>Acacia tetragonophylla</i>				X		X	X						X	X			X		X					X		
<i>Acacia undescribed</i> (B.Maslin)																X										
<i>Acacia yorkakinensis</i>																										
<i>Allocasuarina campestris</i>													X	X	X	X	X	X	X	X	X					
<i>Allocasuarina corniculata</i>																										
<i>Allocasuarina helmsii</i>									X																	
<i>Alyxia buxifolia</i>	x			X		X	X		X			X	X	X			X		X					X		
<i>Amphipogon caricinus</i>																										

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE
	1 A01 A02 A03 A04 A05 A06 A07 A08 A09 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22
<i>Comesperma ?volubile</i>	
<i>Cratystylis subspinescens</i>	
<i>Cryptandra aridicola</i>	
<i>Dampiera eriocephala</i>	
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>	
<i>Daviesia purpurascens</i> (P4)	
<i>Dianella revoluta</i>	
<i>Diplopeltis huegelii</i>	
? <i>Dissocarpus paradoxus</i>	
<i>Dodonaea lobulata</i>	
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>	
<i>Dodonaea stenozyga</i>	
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>	
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>	
<i>Drosera</i> sp.	
<i>Enchylaena lanata</i>	
<i>Eragrostis dielsii</i>	
<i>Eremophila alternifolia</i>	
<i>Eremophila caperata</i>	
<i>Eremophila decipiens</i>	
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	X X
<i>Eremophila georgei</i>	
<i>Eremophila granitica</i>	
<i>Eremophila interstans</i>	
<i>Eremophila interstans</i> subsp. <i>interstans</i>	
<i>Eremophila interstans</i> subsp. <i>virgata</i>	X
<i>Eremophila ionantha</i>	X X X
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>	
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>	
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>	
<i>Eremophila scoparia</i>	X X X

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[illegible]

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[illegible]

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Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE
	1 A01 A02 A03 A04 A05 A06 A07 A08 A09 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22
Melaleuca eleuterostachya	
Melaleuca hamata	
Melaleuca leiocarpa	
Melaleuca nematophylla	
Melaleuca uncinata (complex)	
Melaleuca vinnula	x
Mirbelia microphylla	
Monotaxis luteiflora	
Olearia exiguiolia	x
Olearia muelleri	x x x
Olearia pimeleoides	x x
Persoonia coriacea	
Phebalium canaliculatum	x
Phebalium filifolium	x x
Phebalium lepidotum	x
Phebalium megaphyllum	x
Phebalium tuberosum	x
Philotheca brucei subsp. brucei	x x
Philotheca rhomboidea	
Philotheca tomentella	x
Physopsis viscida	
Pimelea microcephala subsp. microcephala	
Pittosporum angustifolium	
Poaceae sp.	
Podolepis capillaris	
Prostanthera campbellii	x
Prostanthera grylloana	x x x
Proteaceae sp.	
Pseudactinia sp. Bungalbin Hill (F. H. & M. P. Molemans 3069) (P1)	
Ptilotus carlsonii	
Ptilotus drummondii	
Ptilotus exaltatus var. exaltatus	
Ptilotus helipteroides var. helipteroides	x

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[illegible]

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Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE																									
	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33	A34	A35	A36	A37	A38	A39	A40	A41	B01	B02	B03	B04			
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>																										
<i>Acacia andrewsii</i>																										
<i>Acacia aneura</i> var. <i>aneura</i>																										
<i>Acacia assimilis</i>																										
<i>Acacia assimilis</i> subsp. <i>assimilis</i>																										
<i>Acacia burkittii</i>	x		x	x	x		x			x	x			x	x		x	x	x	x		x				
<i>Acacia colletioides</i>			x												x	x				x	x	x				
<i>Acacia coolgardiensis</i>																										
<i>Acacia crenulata</i> (P3)																										
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)																				x						
<i>Acacia erinacea</i>														x										x		
<i>Acacia ?graniticola</i>																										
<i>Acacia hemiteles</i>																										
<i>Acacia inceana</i> subsp. <i>conformis</i>																										
<i>Acacia jennerae</i>																										
<i>Acacia merrallii</i>																										
<i>Acacia minyura</i>																										
<i>Acacia multispicata</i>																										
<i>Acacia prainii</i>																				x						
<i>Acacia quadrimarginea</i>								x	x																	
<i>Acacia ramulosa</i>																										
<i>Acacia resinimarginea</i>						x																				
<i>Acacia ?rigens</i>										x																
<i>Acacia sibina</i>		x							x																	
<i>Acacia</i> sp.					x																					
<i>Acacia tetragonophylla</i>				x	x		x	x						x				x						x		
<i>Acacia</i> undescribed (B.Maslin)																										
<i>Acacia yorkrakinensis</i>																										
<i>Allocastraria campestris</i>								x	x									x	x					x		
<i>Allocastraria corniculata</i>																										
<i>Allocastraria helmsii</i>																										
<i>Alyxia buxifolia</i>				x	x		x	x							x			x		x				x		
<i>Amphipogon caricinus</i>				</																						

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SPECIES	SITE																							
	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33	A34	A35	A36	A37	A38	A39	A40	A41	B01	B02	B03	B04	
<i>Comesperma ?volubile</i>																								
<i>Cratystylis subspinescens</i>																								
<i>Cryptandra aridicola</i>																								
<i>Dampiera eriocephala</i>																								
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																								
<i>Daviesia purpurascens</i> (P4)																								
<i>Dianella revoluta</i>					x				x		x													
<i>Diplopeltis huegelii</i>																								
? <i>Dissocarpus paradoxus</i>																								
<i>Dodonaea lobulata</i>							x	x																
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>																								
<i>Dodonaea stenozyga</i>			x																			x		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>																								
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>																								
<i>Drosera</i> sp.																								
<i>Enchylaena lanata</i>																					x			
<i>Eragrostis dielsii</i>																								
<i>Eremophila alternifolia</i>														x										
<i>Eremophila caperata</i>																x								
<i>Eremophila decipiens</i>																								
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>			x					x										x			x		x	
<i>Eremophila georgei</i>																								
<i>Eremophila granitica</i>	x		x				x				x				x		x							
<i>Eremophila interstans</i>																						x		
<i>Eremophila interstans</i> subsp. <i>interstans</i>																								
<i>Eremophila interstans</i> subsp. <i>virgata</i>																								
<i>Eremophila ionantha</i>				x									x	x			x			x	x	x		
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																								
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																								
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>																								
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>														x		x								
<i>Eremophila scoparia</i>				x	x							x	x	x	x	x				x	x	x		

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SPECIES	SITE																									
	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33	A34	A35	A36	A37	A38	A39	A40	A41	B01	B02	B03	B04			
<i>Glycyrrhiza acanthocarpa</i>																										
<i>Gonocarpus confertifolius</i> var. <i>confertifolius</i>																										
<i>Goodenia elderi</i>																										
<i>Grevillea acuaria</i>			x		x						x					x				x			x			
<i>Grevillea georgeana</i> (P3)						x		x	x										x							
<i>Grevillea huegelii</i>																										
<i>Grevillea juncifolia</i>					x		x				x				x		x									
<i>Grevillea nematophylla</i> subsp. <i>nematophylla</i>																										
<i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>																										
<i>Grevillea zygoloba</i>																										
<i>Hakea francisiana</i>																										
<i>Hakea ?recurva</i>																								x		
<i>Hakea scoparia</i>																										
<i>Halgania andromedifolia</i>																										
<i>Haloragis gossei</i>																										
<i>Hemigenia</i> sp. Sticky Terete (B. H. Smith 449)																										
<i>Hemiphora elderi</i>																										
<i>Hibbertia eatoniae</i>								x	x										x							
<i>Hibiscus sturtii</i>																										
<i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>																										
<i>Isopogon gardneri</i>																		x								
<i>Keraudrenia velutina</i> subsp. <i>elliptica</i>																										
<i>Lachnostachys coolgardiensis</i>																										
<i>Lepidosperma ?bungalbin</i>																										
<i>Leptospermum ?fastigiatum</i>																										
<i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207)						x					x						x	x	x					x		
<i>Leucopogon</i> ?sp. Coolgardie (M. Hislop & F. Hort MH 3197)																										
<i>Lomandra effusa</i>																										
<i>Lysiana casuarinae</i>							x							x										x		
<i>Maireana tomentosa</i>																x										
<i>Maireana trichoptera</i>																										
<i>Maireana triptera</i>												x				x					x	x				
<i>Malleostemon roseus</i>																										

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SPECIES	SITE																									
	B05	B06	B07	B08	B09	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25	B26	B27			
<i>Comesperma ?volubile</i>																										
<i>Cratystylis subspinescens</i>																										
<i>Cryptandra aridicola</i>																										
<i>Dampiera eriocephala</i>																										
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																										
<i>Daviesia purpurascens</i> (P4)		x	x			x	x																			
<i>Dianella revoluta</i>									x		x	x	x													
<i>Diplopeltis huegelii</i>																x										
? <i>Dissocarpus paradoxus</i>																										
<i>Dodonaea lobulata</i>						x								x												
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>																										
<i>Dodonaea stenozyga</i>																				x						
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>																										
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>																										
<i>Drosera</i> sp.																										
<i>Enchylaena lanata</i>																x	x				x					
<i>Eragrostis dielsii</i>																										
<i>Eremophila alternifolia</i>																										
<i>Eremophila caperata</i>																										
<i>Eremophila decipiens</i>																										
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>									x		x	x	x	x									x			
<i>Eremophila georgei</i>													x													
<i>Eremophila granitica</i>									x	x																
<i>Eremophila interstans</i>																										
<i>Eremophila interstans</i> subsp. <i>interstans</i>																										
<i>Eremophila interstans</i> subsp. <i>virgata</i>																										
<i>Eremophila ionantha</i>		x	x	x	x				x						x		x		x		x					
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																				x						
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																										
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>						x								x		x				x		x				
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>	x														x		x	x								
<i>Eremophila scoparia</i>	x	x														x				x	x		x			

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SPECIES	SITE																							
	B05	B06	B07	B08	B09	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25	B26	B27	
*Erodium botrys				X												X								
*Erodium cicutarium																								
Eucalyptus capillosa subsp. capillosa																								
Eucalyptus celastroides subsp. celastroides																								
Eucalyptus celastroides subsp. virella																								
Eucalyptus corrugata	X					X	X		X	X					X		X		X			X	X	
Eucalyptus delicata																								
Eucalyptus ebbanoensis																								
Eucalyptus ewartiana													X											
Eucalyptus gracilis																								
Eucalyptus griffithsii																								
Eucalyptus horistes																								
Eucalyptus leptopoda subsp. subluta																								
Eucalyptus longicornis			X		X										X					X	X	X		
Eucalyptus loxophleba subsp. lissophloia								X			X						X	X	X			X		
Eucalyptus loxophleba subsp. supralaevis																								
Eucalyptus moderata																X								
Eucalyptus oleosa subsp. oleosa																								
Eucalyptus pileata																								
Eucalyptus platycorys																								
Eucalyptus ravida																X				X				
Eucalyptus salmonophloia		X	X																					
Eucalyptus salubris																					X			
Eucalyptus sheathiana	X														X									
Eucalyptus sp.																								
Eucalyptus stricklandii																								
Eucalyptus transcontinentalis																								
Eucalyptus trichopoda	X				X																			
Eucalyptus yilgarnensis																								
Euphorbia drummondii				X																				
Euryomyrtus maidenii																								
Exocarpos aphyllus	X	X	X	X	X	X			X	X					X		X			X	X	X	X	X
Glischrocaryon aureum																								

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SPECIES	SITE																									
	B05	B06	B07	B08	B09	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25	B26	B27			
<i>Glycyrrhiza acanthocarpa</i>																										
<i>Gonocarpus confertifolius</i> var. <i>confertifolius</i>																										
<i>Goodenia elderi</i>																										
<i>Grevillea acuarria</i>				x	x	x									x	x	x	x		x	x	x	x			
<i>Grevillea georgeana</i> (P3)							x	x			x	x	x													
<i>Grevillea huegelii</i>																										
<i>Grevillea juncifolia</i>							x		x	x												x				
<i>Grevillea nematophylla</i> subsp. <i>nematophylla</i>																										
<i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>																										
<i>Grevillea zygoloba</i>																										
<i>Hakea francisiana</i>																										
<i>Hakea ?recurva</i>																										
<i>Hakea scoparia</i>																										
<i>Halgania andromedifolia</i>																										
<i>Haloragis gossei</i>																x										
<i>Hemigenia</i> sp. Sticky Terete (B. H. Smith 449)																										
<i>Hemiphora elderi</i>																										
<i>Hibbertia eatoniae</i>																										
<i>Hibiscus sturtii</i>																										
<i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>																										
<i>Isopogon gardneri</i>								x			x		x													
<i>Keraudrenia velutina</i> subsp. <i>elliptica</i>																										
<i>Lachnostachys coolgardiensis</i>																										
<i>Lepidosperma ?bungalbin</i>																										
<i>Leptospermum ?fastigiatum</i>																										
<i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207)						x	x	x			x	x	x	x								x				
<i>Leucopogon</i> ?sp. Coolgardie (M. Hislop & F. Hort MH 3197)																										
<i>Lomandra effusa</i>																								x		
<i>Lysiana casuarinae</i>																	x									
<i>Maireana tomentosa</i>																										
<i>Maireana trichoptera</i>																					x					
<i>Maireana triptera</i>				x	x				x	x					x	x	x	x	x					x		

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

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SPECIES	SITE																					
	B28	B29	B30	B31	B32	B33	B34	B35	B36	B37	B38	B39	B40	B41	C001	C003	C004	C006	C007	C008	C009	
<i>Comesperma ?volubile</i>																						
<i>Cratystylis subspinescens</i>																						
<i>Cryptandra aridicola</i>																						
<i>Dampiera eriocephala</i>																						
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																						
<i>Daviesia purpurascens</i> (P4)																						
<i>Dianella revoluta</i>																						
<i>Diplopeltis huegelii</i>																						
? <i>Dissocarpus paradoxus</i>																						
<i>Dodonaea lobulata</i>																						
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>																						
<i>Dodonaea stenozyga</i>																						
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>															x							
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>																						
<i>Drosera</i> sp.																						
<i>Enchylaena lanata</i>				x				x			x											
<i>Eragrostis dielsii</i>																						
<i>Eremophila alternifolia</i>																						
<i>Eremophila caperata</i>									x	x		x										
<i>Eremophila decipiens</i>																		x				
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>			x					x	x	x			x									
<i>Eremophila georgei</i>																						
<i>Eremophila granitica</i>																		x				
<i>Eremophila interstans</i>														x								
<i>Eremophila interstans</i> subsp. <i>interstans</i>																						
<i>Eremophila interstans</i> subsp. <i>virgata</i>														x								
<i>Eremophila ionantha</i>	x	x		x	x	x	x	x	x	x	x	x	x	x	x							
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																						
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																						
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>																						
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>											x											
<i>Eremophila scoparia</i>	x	x		x	x	x	x		x	x	x	x	x		x							

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

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[illegible]

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Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE																				
	B28	B29	B30	B31	B32	B33	B34	B35	B36	B37	B38	B39	B40	B41	C001	C003	C004	C006	C007	C008	C009
<i>Ptilotus holosericeus</i>																					
<i>Ptilotus obovatus</i> var. <i>obovatus</i>								x			x										
<i>Radyera farragei</i>																					
<i>Rhagodia drummondii</i>							x							x							
<i>Rhagodia spinescens</i>																					
<i>Rinzia carnosa</i>																					
<i>Santalum acuminatum</i>	x	x		x	x	x	x	x	x	x	x	x	x	x							
<i>Santalum spicatum</i>															x						
<i>Scaevola spinescens</i>	x	x	x	x			x				x							x			
<i>Schoenia</i> sp.																					
<i>Sclerolaena diacantha</i>							x							x							
<i>Sclerolaena fusiformis</i>																					
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	x	x		x			x	x	x	x	x	x	x	x	x			x			
<i>Sida intricata</i>																					
<i>Sida spodochroma</i>					x	x	x		x	x		x			x						
<i>Solanum hoplopetalum</i>								x													
<i>Solanum lasiophyllum</i>																					
<i>Solanum nummularium</i>	x	x																			
<i>Solanum orbiculatum</i> subsp. <i>orbiculatum</i>																					
<i>Solanum plicatile</i>																					
<i>Spartothamnella</i> sp. Helena and Aurora range (P3)																					
<i>Stenanthemum stipulosum</i>																					
<i>Streptoglossa liatroides</i>																					
<i>Stylidium dielsianum</i>																					
<i>Swainsona colutoides</i>																					
<i>Templetonia sulcata</i>						x	x	x													
<i>Thryptomene kochii</i>																x	x		x	x	x
<i>Thysanotus patersonii</i>			x																		
<i>Triodia</i> ? <i>desertorum</i>																		x		x	x
<i>Triodia irritans</i>																					
<i>Velleia connata</i>																					
<i>Verticordia</i> ? <i>helmsii</i>																					
<i>Westringia cephalantha</i>																					
<i>Westringia rigida</i>													x					x			
<i>Wurmbea tenella</i>																					
<i>Zygophyllum apiculatum</i>																					
<i>Zygophyllum</i> ? <i>compressum</i>																					

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

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SPECIES	SITE																	
	C010	C011	C012	C013	C014	C015	C016	C017	C018	C019	C020	C021	C022	C023	C024	C025	C026	C027
<i>Comesperma ?volubile</i>																		
<i>Cratystylis subspinescens</i>																		
<i>Cryptandra aridicola</i>																		
<i>Dampiera eriocephala</i>																		
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																		
<i>Daviesia purpurascens</i> (P4)					x													
<i>Dianella revoluta</i>																		
<i>Diplopeltis huegelii</i>																		
? <i>Dissocarpus paradoxus</i>																		
<i>Dodonaea lobulata</i>																		
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>																		
<i>Dodonaea stenozyga</i>																		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>																		
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>													x					
<i>Drosera</i> sp.																		
<i>Enchylaena lanata</i>																		
<i>Eragrostis dielsii</i>																		
<i>Eremophila alternifolia</i>																		
<i>Eremophila caperata</i>		x																
<i>Eremophila decipiens</i>																		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>																		
<i>Eremophila georgei</i>																		
<i>Eremophila granitica</i>																		
<i>Eremophila interstans</i>																		
<i>Eremophila interstans</i> subsp. <i>interstans</i>													x					
<i>Eremophila interstans</i> subsp. <i>virgata</i>																		
<i>Eremophila ionantha</i>															x			
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																		
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																		
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>																		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>																		
<i>Eremophila scoparia</i>													x			x		

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SPECIES	SITE																	
	C010	C011	C012	C013	C014	C015	C016	C017	C018	C019	C020	C021	C022	C023	C024	C025	C026	C027
<i>Glycyrrhiza acanthocarpa</i>																		
<i>Gonocarpus confertifolius</i> var. <i>confertifolius</i>																		
<i>Goodenia elderi</i>																		
<i>Grevillea acuarina</i>					x	x	x				x		x					
<i>Grevillea georgeana</i> (P3)																		
<i>Grevillea huegelii</i>					x	x	x											
<i>Grevillea juncifolia</i>																x		
<i>Grevillea nematophylla</i> subsp. <i>nematophylla</i>																		
<i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>																		
<i>Grevillea zygomorpha</i>																		
<i>Hakea francisiana</i>																		x
<i>Hakea ?recurva</i>																		
<i>Hakea scoparia</i>																		
<i>Halgania andromedifolia</i>							x			x	x							
<i>Haloragis gossei</i>																		
<i>Hemigenia</i> sp. Sticky Terete (B. H. Smith 449)																		
<i>Hemiphora elderi</i>																		
<i>Hibbertia eatoniae</i>																		
<i>Hibiscus sturtii</i>																		
<i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>																		
<i>Isopogon gardneri</i>	x																x	
<i>Keraudrenia velutina</i> subsp. <i>elliptica</i>																		
<i>Lachnostachys coolgardiensis</i>																		
<i>Lepidosperma ?bungalbin</i>																		x
<i>Leptospermum ?fastigiatum</i>	x		x	x				x	x			x						
<i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207)	x																x	
<i>Leucopogon</i> ?sp. Coolgardie (M. Hislop & F. Hort MH 3197)												x						x
<i>Lomandra effusa</i>		x									x		x					
<i>Lysiana casuarinae</i>																		
<i>Maireana tomentosa</i>																		
<i>Maireana trichoptera</i>																		
<i>Maireana triptera</i>																x		
<i>Malleostemon roseus</i>														x				

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[illegible]

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[illegible]

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SPECIES	SITE																	
	C028	C029	C030	C031	C032	C033	C034	C035	C036	C037	C038	C039	C040	C041	C042	C043	C044	C045
<i>Comesperma ?volubile</i>																		
<i>Cratystylis subspinescens</i>			x													x		
<i>Cryptandra aridicola</i>																		
<i>Dampiera eriocephala</i>																		
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																		
<i>Daviesia purpurascens</i> (P4)																		
<i>Dianella revoluta</i>																		
<i>Diplopeltis huegelii</i>																		
? <i>Dissocarpus paradoxus</i>																		
<i>Dodonaea lobulata</i>																		
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>																		
<i>Dodonaea stenozyga</i>																		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>																		
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>																		
<i>Drosera</i> sp.																		
<i>Enchylaena lanata</i>											x							
<i>Eragrostis dielsii</i>																		
<i>Eremophila alternifolia</i>																		
<i>Eremophila caperata</i>																		
<i>Eremophila decipiens</i>	x		x													x		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>						x	x	x						x				
<i>Eremophila georgei</i>																		
<i>Eremophila granitica</i>	x	x					x			x							x	
<i>Eremophila interstans</i>																		
<i>Eremophila interstans</i> subsp. <i>interstans</i>																		
<i>Eremophila interstans</i> subsp. <i>virgata</i>									x									
<i>Eremophila ionantha</i>		x						x	x		x	x			x	x	x	
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																		
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																		
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>																		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>	x																	
<i>Eremophila scoparia</i>		x						x			x	x					x	

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[illegible]

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SPECIES	SITE																	
	C028	C029	C030	C031	C032	C033	C034	C035	C036	C037	C038	C039	C040	C041	C042	C043	C044	C045
<i>Ptilotus holosericeus</i>			x															
<i>Ptilotus obovatus</i> var. <i>obovatus</i>							x				x							
<i>Radyera farragei</i>																		
<i>Rhagodia drummondii</i>											x	x						
<i>Rhagodia spinescens</i>																		
<i>Rinzia carnosa</i>										x								
<i>Santalum acuminatum</i>								x		x							x	
<i>Santalum spicatum</i>										x			x					
<i>Scaevola spinescens</i>	x							x		x			x					
<i>Schoenia</i> sp.											x							
<i>Sclerolaena diacantha</i>								x	x		x	x				x		
<i>Sclerolaena fusiformis</i>																		
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	x	x						x	x		x	x	x		x	x		
<i>Sida intricata</i>																		
<i>Sida spodochroma</i>		x														x		
<i>Solanum hoplopetalum</i>																x		
<i>Solanum lasiophyllum</i>															x			
<i>Solanum nummularium</i>			x					x					x			x		
<i>Solanum orbiculatum</i> subsp. <i>orbiculatum</i>											x							
<i>Solanum plicatile</i>																		
<i>Spartothamnella</i> sp. Helena and Aurora range (P3)																		
<i>Stenanthemum stipulosum</i>						x								x				
<i>Streptoglossa liatroides</i>			x															
<i>Stylidium dielsianum</i>																		
<i>Swainsona colutoides</i>																		
<i>Templetonia sulcata</i>	x							x							x		x	
<i>Thryptomene kochii</i>	x																	
<i>Thysanotus patersonii</i>								x			x	x		x				
<i>Triodia</i> ? <i>desertorum</i>															x			
<i>Triodia irritans</i>																		
<i>Velleia connata</i>																		
<i>Verticordia</i> ? <i>helmsii</i>																		
<i>Westringia cephalantha</i>													x					
<i>Westringia rigida</i>																		
<i>Wurmbea tenella</i>																		
<i>Zygophyllum apiculatum</i>																		
<i>Zygophyllum</i> ? <i>compressum</i>											x							

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SPECIES	SITE																	
	C046	C047	C048	C049	C050	C052	C053	C054	C055	C056	C057	C058	C059	C060	C061	C062	C063	C064
<i>Comesperma ?volubile</i>																		
<i>Cratystylis subspinescens</i>	x																	
<i>Cryptandra aridicola</i>																		
<i>Dampiera eriocephala</i>																		
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																		
<i>Daviesia purpurascens</i> (P4)																		
<i>Dianella revoluta</i>							x											
<i>Diplopeltis huegelii</i>																		
<i>?Dissocarpus paradoxus</i>																		
<i>Dodonaea lobulata</i>																		
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>					x													
<i>Dodonaea stenozyga</i>																		
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>																		
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>																		
<i>Drosera</i> sp.																		
<i>Enchylaena lanata</i>																		
<i>Eragrostis dielsii</i>																		
<i>Eremophila alternifolia</i>																		
<i>Eremophila caperata</i>																		
<i>Eremophila decipiens</i>																		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	x	x	x				x	x										
<i>Eremophila georgei</i>																		
<i>Eremophila granitica</i>							x											
<i>Eremophila interstans</i>	x																	
<i>Eremophila interstans</i> subsp. <i>interstans</i>																		
<i>Eremophila interstans</i> subsp. <i>virgata</i>		x												x	x			
<i>Eremophila ionantha</i>	x	x		x			x	x					x					
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																		
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																		
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>					x									x				
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>					x													
<i>Eremophila scoparia</i>	x	x		x				x					x	x				

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[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE																	
	C065	C066	C067	C068	C069	C070	C071	C072	C073	C074	C075	C076	C077	C078	C079	C080	C081	C082
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>		x																
<i>Acacia andrewsii</i>										x								
<i>Acacia aneura</i> var. <i>aneura</i>																		
<i>Acacia assimilis</i>																		
<i>Acacia assimilis</i> subsp. <i>assimilis</i>																		
<i>Acacia burkittii</i>	x			x	x				x	x	x					x		
<i>Acacia colletioides</i>							x	x		x								x
<i>Acacia coolgardiensis</i>																		
<i>Acacia crenulata</i> (P3)																		
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)																		
<i>Acacia erinacea</i>									x	x		x	x			x		x
<i>Acacia ?graniticola</i>																		
<i>Acacia hemiteles</i>	x				x													
<i>Acacia inceana</i> subsp. <i>conformis</i>																		
<i>Acacia jennerae</i>																		
<i>Acacia merrallii</i>																		
<i>Acacia minyura</i>																		
<i>Acacia multispicata</i>						x												
<i>Acacia prainii</i>																		
<i>Acacia quadrimarginea</i>																		
<i>Acacia ramulosa</i>														x	x	x	x	
<i>Acacia resinimarginea</i>		x		x														
<i>Acacia ?rigens</i>																		
<i>Acacia sibina</i>		x												x	x		x	
<i>Acacia</i> sp.																		
<i>Acacia tetragonophylla</i>				x			x			x			x					x
<i>Acacia</i> undescribed (B.Maslin)																		
<i>Acacia yorkrakinensis</i>																		
<i>Allocasuarina campestris</i>	x										x			x	x		x	
<i>Allocasuarina corniculata</i>																		
<i>Allocasuarina helmsii</i>																		
<i>Alyxia buxifolia</i>				x	x	x	x			x	x	x				x		x
<i>Amphipogon caricinus</i>			x	x	x	x					x			x	x	x	x	x

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

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[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE																	
	C065	C066	C067	C068	C069	C070	C071	C072	C073	C074	C075	C076	C077	C078	C079	C080	C081	C082
<i>Comesperma ?volubile</i>																		
<i>Cratystylis subspinescens</i>																		
<i>Cryptandra aridicola</i>																		
<i>Dampiera eriocephala</i>																		
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																		
<i>Daviesia purpurascens</i> (P4)																		
<i>Dianella revoluta</i>																		
<i>Diplopeltis huegelii</i>																		
? <i>Dissocarpus paradoxus</i>																		
<i>Dodonaea lobulata</i>											x							
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>																		
<i>Dodonaea stenozyga</i>	x																	
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>																		
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>																		
<i>Drosera</i> sp.														x	x		x	
<i>Enchylaena lanata</i>																		
<i>Eragrostis dielsii</i>																		
<i>Eremophila alternifolia</i>								x										
<i>Eremophila caperata</i>		x			x	x												
<i>Eremophila decipiens</i>																		
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	x			x							x							x
<i>Eremophila georgei</i>																		
<i>Eremophila granitica</i>																		
<i>Eremophila interstans</i>																		
<i>Eremophila interstans</i> subsp. <i>interstans</i>													x					
<i>Eremophila interstans</i> subsp. <i>virgata</i>																		
<i>Eremophila ionantha</i>							x	x	x			x	x					x
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																		
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																		
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>										x			x					x
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>					x						x	x						
<i>Eremophila scoparia</i>							x	x	x	x		x	x			x		

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Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

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[illegible]

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[illegible]

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SPECIES	SITE													
	C083	C084	C085	C086	C087	C088	C089	C090	Camp 1	Camp 2	Fauna CR1	Fauna CR2	Fauna CR3	Fauna CR4
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>														
<i>Acacia andrewsii</i>	x													
<i>Acacia aneura</i> var. <i>aneura</i>														
<i>Acacia assimilis</i>														x
<i>Acacia assimilis</i> subsp. <i>assimilis</i>														
<i>Acacia burkittii</i>	x	x	x	x	x		x			x	x		x	
<i>Acacia colletioides</i>	x	x	x						x	x		x		x
<i>Acacia coolgardiensis</i>														
<i>Acacia crenulata</i> (P3)														
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)											x			
<i>Acacia erinacea</i>	x					x	x				x		x	
<i>Acacia ?graniticola</i>														
<i>Acacia hemiteles</i>							x	x						
<i>Acacia inceana</i> subsp. <i>conformis</i>														
<i>Acacia jennerae</i>												x		
<i>Acacia merrallii</i>									x					
<i>Acacia minyura</i>					x									
<i>Acacia multispicata</i>														
<i>Acacia prainii</i>														
<i>Acacia quadrimarginea</i>														
<i>Acacia ramulosa</i>														
<i>Acacia resinimarginea</i>														
<i>Acacia ?rigens</i>														
<i>Acacia sibina</i>														
<i>Acacia</i> sp.														
<i>Acacia tetragonophylla</i>	x	x	x	x									x	
<i>Acacia</i> undescribed (B.Maslin)														
<i>Acacia yorkrakinensis</i>														
<i>Allocasuarina campestris</i>					x									
<i>Allocasuarina corniculata</i>														
<i>Allocasuarina helmsii</i>														
<i>Alyxia buxifolia</i>	x						x	x				x	x	
<i>Amphipogon caricinus</i>				x			x	x						

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SPECIES	SITE														
	C083	C084	C085	C086	C087	C088	C089	C090	Camp 1	Camp 2	Fauna CR1	Fauna CR2	Fauna CR3	Fauna CR4	
<i>Comesperma ?volubile</i>															
<i>Cratystylis subspinescens</i>															
<i>Cryptandra aridicola</i>															
<i>Dampiera eriocephala</i>															
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>															
<i>Daviesia purpurascens</i> (P4)															
<i>Dianella revoluta</i>					x			x							
<i>Diplopeltis huegelii</i>															
? <i>Dissocarpus paradoxus</i>														x	
<i>Dodonaea lobulata</i>													x		
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>								x							
<i>Dodonaea stenozyga</i>															
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>															
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>															
<i>Drosera</i> sp.															
<i>Enchylaena lanata</i>									x	x			x	x	
<i>Eragrostis dielsii</i>															
<i>Eremophila alternifolia</i>															
<i>Eremophila caperata</i>									x	x					
<i>Eremophila decipiens</i>															
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		x	x						x	x					
<i>Eremophila georgei</i>															
<i>Eremophila granitica</i>				x											
<i>Eremophila interstans</i>															
<i>Eremophila interstans</i> subsp. <i>interstans</i>															
<i>Eremophila interstans</i> subsp. <i>virgata</i>															
<i>Eremophila ionantha</i>		x	x			x	x		x	x	x	x		x	
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>															
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>															
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	x							x					x		
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>		x	x				x						x		
<i>Eremophila scoparia</i>	x	x	x						x			x			

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[illegible]

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SPECIES	SITE													
	Fauna CR5	Fauna CR6	CR001	CR002	CR003	CR004	CR005	CR006	CR007	CR008	CR009	CR010	CR011	CR013
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>														
<i>Acacia andrewsii</i>														
<i>Acacia aneura</i> var. <i>aneura</i>														
<i>Acacia assimilis</i>														
<i>Acacia assimilis</i> subsp. <i>assimilis</i>														
<i>Acacia burkittii</i>				x										
<i>Acacia colletioides</i>	x	x						x					x	
<i>Acacia coolgardiensis</i>														
<i>Acacia crenulata</i> (P3)														
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)														
<i>Acacia erinacea</i>														
<i>Acacia ?graniticola</i>														
<i>Acacia hemiteles</i>					x	x								
<i>Acacia inceana</i> subsp. <i>conformis</i>														
<i>Acacia jennerae</i>														
<i>Acacia merrallii</i>	x	x												
<i>Acacia minyura</i>														
<i>Acacia multispicata</i>														
<i>Acacia prainii</i>														
<i>Acacia quadrimarginea</i>														
<i>Acacia ramulosa</i>														
<i>Acacia resinimarginea</i>							x							
<i>Acacia ?rigens</i>														
<i>Acacia sibina</i>			x		x				x	x		x		x
<i>Acacia</i> sp.														
<i>Acacia tetragonophylla</i>				x										
<i>Acacia</i> undescribed (B.Maslin)														
<i>Acacia yorkrakinensis</i>														
<i>Allocasuarina campestris</i>			x	x	x				x	x		x		x
<i>Allocasuarina corniculata</i>			x						x			x		x
<i>Allocasuarina helmsii</i>														
<i>Alyxia buxifolia</i>		x		x									x	
<i>Amphipogon caricinus</i>			x		x		x		x					x

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[illegible]

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SPECIES	SITE														
	CR014	CR015	CR016	CR017	CR018	CR019	CR020	CR021	CR022	CR023	CR024	CR025	CR026	CR027	CR028
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>															
<i>Acacia andrewsii</i>										x					
<i>Acacia aneura</i> var. <i>aneura</i>													x		x
<i>Acacia assimilis</i>															
<i>Acacia assimilis</i> subsp. <i>assimilis</i>															
<i>Acacia burkittii</i>	x	x	x	x		x			x						
<i>Acacia colletioides</i>	x	x	x		x										
<i>Acacia coolgardiensis</i>															
<i>Acacia crenulata</i> (P3)															
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)															
<i>Acacia erinacea</i>									x	x	x	x			
<i>Acacia ?graniticola</i>															
<i>Acacia hemiteles</i>	x				x			x							
<i>Acacia inceana</i> subsp. <i>conformis</i>															
<i>Acacia jennerae</i>		x													
<i>Acacia merrallii</i>															
<i>Acacia minyura</i>															
<i>Acacia multispicata</i>															
<i>Acacia prainii</i>															
<i>Acacia quadrimarginea</i>															
<i>Acacia ramulosa</i>															
<i>Acacia resinimarginea</i>															
<i>Acacia ?rigens</i>															
<i>Acacia sibina</i>	x						x							x	x
<i>Acacia</i> sp.															
<i>Acacia tetragonophylla</i>									x	x					
<i>Acacia</i> undescribed (B.Maslin)															
<i>Acacia yorkkrakensis</i>															
<i>Allocasuarina campestris</i>							x								
<i>Allocasuarina corniculata</i>							x								
<i>Allocasuarina helmsii</i>															
<i>Alyxia buxifolia</i>	x	x	x	x		x				x					
<i>Amphipogon caricinus</i>				x			x		x	x	x	x	x	x	x

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SPECIES	SITE														
	CR014	CR015	CR016	CR017	CR018	CR019	CR020	CR021	CR022	CR023	CR024	CR025	CR026	CR027	CR028
<i>Comesperma ?volubile</i>															
<i>Cratystylis subspinescens</i>															
<i>Cryptandra aridicola</i>															
<i>Dampiera eriocephala</i>															
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>															
<i>Daviesia purpurascens</i> (P4)											x	x			
<i>Dianella revoluta</i>														x	x
<i>Diplopeltis huegelii</i>															
? <i>Dissocarpus paradoxus</i>															
<i>Dodonaea lobulata</i>									x						
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>									x						
<i>Dodonaea stenozyga</i>										x	x	x			
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>															
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>															
<i>Drosera</i> sp.														x	
<i>Enchylaena lanata</i>															
<i>Eragrostis dielsii</i>															
<i>Eremophila alternifolia</i>											x	x			
<i>Eremophila caperata</i>	x		x	x	x										
<i>Eremophila decipiens</i>															
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>		x	x	x		x			x	x					
<i>Eremophila georgei</i>															
<i>Eremophila granitica</i>		x													
<i>Eremophila interstans</i>															
<i>Eremophila interstans</i> subsp. <i>interstans</i>						x		x	x						
<i>Eremophila interstans</i> subsp. <i>virgata</i>															
<i>Eremophila ionantha</i>															
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>															
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>															
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>									x	x	x	x			
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>									x	x					
<i>Eremophila scoparia</i>		x	x			x			x	x					

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[illegible]

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[illegible]

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SPECIES	SITE																
	CR029	CR030	CR031	CR032	CR033	CR09A	CR200	CR201	CR202	CR203	CR204	CR205	CR29A	F1	F2	F3	F4
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>																	
<i>Acacia andrewsii</i>																	
<i>Acacia aneura</i> var. <i>aneura</i>																	
<i>Acacia assimilis</i>																	
<i>Acacia assimilis</i> subsp. <i>assimilis</i>																	
<i>Acacia burkittii</i>	x							x	x			x	x	x	x	x	x
<i>Acacia colletioides</i>							x	x	x			x			x	x	
<i>Acacia coolgardiensis</i>														x			
<i>Acacia crenulata</i> (P3)																	
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)																x	
<i>Acacia erinacea</i>							x	x								x	
<i>Acacia ?graniticola</i>																	
<i>Acacia hemiteles</i>																	
<i>Acacia inceana</i> subsp. <i>conformis</i>																	
<i>Acacia jennerae</i>																	
<i>Acacia merrallii</i>																	
<i>Acacia minyura</i>																	
<i>Acacia multispicata</i>																	
<i>Acacia prainii</i>							x	x	x							x	
<i>Acacia quadrimarginea</i>									x								
<i>Acacia ramulosa</i>																	
<i>Acacia resinimarginea</i>			x									x					
<i>Acacia ?rigens</i>																	
<i>Acacia sibina</i>		x		x	x												
<i>Acacia</i> sp.																	
<i>Acacia tetragonophylla</i>							x	x				x					
<i>Acacia</i> undescribed (B.Maslin)																	
<i>Acacia yorkrakinensis</i>																	
<i>Allocasuarina campestris</i>															x		
<i>Allocasuarina corniculata</i>																	
<i>Allocasuarina helmsii</i>																	
<i>Alyxia buxifolia</i>							x	x	x						x	x	
<i>Amphipogon caricinus</i>	x	x											x				

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

	SITE																
SPECIES	CR029	CR030	CR031	CR032	CR033	CR09A	CR200	CR201	CR202	CR203	CR204	CR205	CR29A	F1	F2	F3	F4
? <i>Amphipogon caricinus</i>														x	x		
<i>Amyema benthamii</i>																	
<i>Amyema miquelii</i>	x							x					x				
<i>Aristida holathera</i> var. <i>holathera</i>																	
<i>Asteraceae</i> sp.																	
<i>Atriplex nummularia</i>	x							x	x	x	x		x				
<i>Atriplex vesicaria</i>	x								x	x	x		x				
<i>Austrostipa elegantissima</i>										x	x	x					
? <i>Austrostipa nitida</i>																	
<i>Austrostipa platychaeta</i>																	
<i>Austrostipa</i> sp.	x												x				
<i>Baeckea crispiflora</i>																	
<i>Baeckea elderiana</i>		x															
<i>Baeckea muricata</i>																	
<i>Banksia arborea</i>																	
<i>Beyeria brevifolia</i>																	
<i>Beyeria brevifolia</i> var. <i>robustior</i>																	
<i>Beyeria calycina</i> var. <i>minor</i>																x	
<i>Borya constricta</i>																	
<i>Bossiaea walkeri</i>																	
<i>Brachychiton gregorii</i>																	
<i>Callitris canescens</i>														x		x	
<i>Callitris preissii</i>																	
<i>Calothamnus gilesii</i>																	
<i>Calycopeplus paucifolius</i>																	
<i>Cassytha melantha</i>															x		
<i>Casuarina obesa</i>																	
<i>Casuarina pauper</i>												x					
<i>Chamaexeros macranthera</i>																	
<i>Cheilanthes adiantoides</i>																	
<i>Cheilanthes brownii</i>																	
<i>Cheilanthes lasiophylla</i>																	
<i>Codonocarpus cotinifolius</i>		x		x	x	x							x				

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

	SITE																
SPECIES	CR029	CR030	CR031	CR032	CR033	CR09A	CR200	CR201	CR202	CR203	CR204	CR205	CR29A	F1	F2	F3	F4
<i>Comesperma ?volubile</i>																	
<i>Cratystylis subspinescens</i>																	
<i>Cryptandra aridicola</i>																	x
<i>Dampiera eriocephala</i>		x	x	x	x												
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>																	x
<i>Daviesia purpurascens</i> (P4)															x		
<i>Dianella revoluta</i>				x	x										x		
<i>Diplopeltis huegelii</i>																	
? <i>Dissocarpus paradoxus</i>																	
<i>Dodonaea lobulata</i>																	
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>																	
<i>Dodonaea stenozyga</i>																	
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>		x															
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>																	
<i>Drosera</i> sp.																	
<i>Enchylaena lanata</i>																	
<i>Eragrostis dielsii</i>																	
<i>Eremophila alternifolia</i>	x												x				
<i>Eremophila caperata</i>																	
<i>Eremophila decipiens</i>														x			x
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	x											x	x				
<i>Eremophila georgei</i>																	
<i>Eremophila granitica</i>								x	x			x			x		
<i>Eremophila interstans</i>																	
<i>Eremophila interstans</i> subsp. <i>interstans</i>																	
<i>Eremophila interstans</i> subsp. <i>virgata</i>																	
<i>Eremophila ionantha</i>								x	x	x	x					x	x
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>																	
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>																	
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>																	
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>	x												x				
<i>Eremophila scoparia</i>	x								x	x	x	x	x		x	x	

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

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APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

	SITE																
SPECIES	CR029	CR030	CR031	CR032	CR033	CR09A	CR200	CR201	CR202	CR203	CR204	CR205	CR29A	F1	F2	F3	F4
<i>Glycyrrhiza acanthocarpa</i>						x							x				
<i>Gonocarpus confertifolius</i> var. <i>confertifolius</i>			x	x	x												
<i>Goodenia elderi</i>		x	x														
<i>Grevillea acuaria</i>							x	x	x			x			x	x	x
<i>Grevillea georgeana</i> (P3)																	
<i>Grevillea huegelii</i>																	
<i>Grevillea juncifolia</i>												x					
<i>Grevillea nematophylla</i> subsp. <i>nematophylla</i>																	
<i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>												x					
<i>Grevillea zygodoba</i>																	
<i>Hakea francisiana</i>			x									x				x	
<i>Hakea ?recurva</i>																	
<i>Hakea scoparia</i>		x	x														
<i>Halgania andromedifolia</i>																	x
<i>Haloragis gossei</i>																	
<i>Hemigenia</i> sp. Sticky Terete (B. H. Smith 449)																	
<i>Hemiphora elderi</i>			x														
<i>Hibbertia eatoniae</i>		x	x														
<i>Hibiscus sturtii</i>		x	x	x	x	x							x				
<i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>																	
<i>Isopogon gardneri</i>																	
<i>Keraudrenia velutina</i> subsp. <i>elliptica</i>		x	x	x	x	x							x				
<i>Lachnostachys coolgardiensis</i>		x															
<i>Lepidosperma ?bungalbin</i>																	
<i>Leptospermum ?fastigiatum</i>			x														
<i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207)	x												x				
<i>Leucopogon</i> ?sp. Coolgardie (M. Hislop & F. Hort MH 3197)																	
<i>Lomandra effusa</i>																	
<i>Lysiana casuarinae</i>									x								
<i>Maireana tomentosa</i>																x	
<i>Maireana trichoptera</i>									x								
<i>Maireana triptera</i>							x	x	x	x	x					x	
<i>Malleostemon roseus</i>		x												x			

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

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APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE												
	F5	F6	F7	F8	F9	Gravel Pit	JS01	JS02	JS03	JS04	Mine 1	Mine 2	Mine 3
<i>Comesperma ?volubile</i>								x					
<i>Cratystylis subspinescens</i>	x	x	x	x									
<i>Cryptandra aridicola</i>													
<i>Dampiera eriocephala</i>													
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>													
<i>Daviesia purpurascens</i> (P4)													
<i>Dianella revoluta</i>													
<i>Diplopeltis huegelii</i>													
<i>?Dissocarpus paradoxus</i>													
<i>Dodonaea lobulata</i>													x
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>											x		x
<i>Dodonaea stenozyga</i>						x	x						
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>													
<i>Dodonaea viscosa</i> subsp. <i>mucronata</i>													
<i>Drosera</i> sp.													
<i>Enchylaena lanata</i>													
<i>Eragrostis dielsii</i>													
<i>Eremophila alternifolia</i>													
<i>Eremophila caperata</i>													
<i>Eremophila decipiens</i>	x		x										
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>													
<i>Eremophila georgei</i>													
<i>Eremophila granitica</i>						x				x		x	
<i>Eremophila interstans</i>		x	x										
<i>Eremophila interstans</i> subsp. <i>interstans</i>													
<i>Eremophila interstans</i> subsp. <i>virgata</i>									x				
<i>Eremophila ionantha</i>	x	x	x	x									
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>													
<i>Eremophila maculata</i> subsp. <i>brevifolia</i>		x							x				
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>						x					x	x	
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>							x						
<i>Eremophila scoparia</i>				x	x	x	x					x	

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

	SITE													
SPECIES	F5	F6	F7	F8	F9	Gravel Pit	JS01	JS02	JS03	JS04	Mine 1	Mine 2	Mine 3	
<i>Glycyrrhiza acanthocarpa</i>														
<i>Gonocarpus confertifolius</i> var. <i>confertifolius</i>														
<i>Goodenia elderi</i>														
<i>Grevillea acuaria</i>						x	x				x	x	x	
<i>Grevillea georgeana</i> (P3)								x						
<i>Grevillea huegelii</i>														
<i>Grevillea juncifolia</i>						x								
<i>Grevillea nematophylla</i> subsp. <i>nematophylla</i>														
<i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>											x		x	
<i>Grevillea zygoloba</i>								x		x				
<i>Hakea francisiana</i>						x								
<i>Hakea ?recurva</i>														
<i>Hakea scoparia</i>														
<i>Halgania andromedifolia</i>														
<i>Haloragis gossei</i>									x					
<i>Hemigenia</i> sp. Sticky Terete (B. H. Smith 449)														
<i>Hemiphora elderi</i>														
<i>Hibbertia eatoniae</i>														
<i>Hibiscus sturtii</i>														
<i>Hybanthus floribundus</i> subsp. <i>curvifolius</i>														
<i>Isopogon gardneri</i>						x				x				
<i>Keraudrenia velutina</i> subsp. <i>elliptica</i>														
<i>Lachnostachys coolgardiensis</i>														
<i>Lepidosperma ?bungalbin</i>														
<i>Leptospermum ?fastigiatum</i>														
<i>Leucopogon</i> sp. Clyde Hill (M.A. Burgman 1207)							x	x		x	x		x	
<i>Leucopogon</i> ?sp. Coolgardie (M. Hislop & F. Hort MH 3197)														
<i>Lomandra effusa</i>														
<i>Lysiana casuarinae</i>							x							
<i>Maireana tomentosa</i>														
<i>Maireana trichoptera</i>														
<i>Maireana triptera</i>					x		x							
<i>Malleostemon roseus</i>						x								

APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

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APPENDIX C: SUMMARY OF VASCULAR PLANT SPECIES RECORDED AT SURVEY SITES WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	SITE												
	F5	F6	F7	F8	F9	Gravel Pit	JS01	JS02	JS03	JS04	Mine 1	Mine 2	Mine 3
<i>Ptilotus holosericeus</i>													
<i>Ptilotus obovatus</i> var. <i>obovatus</i>												x	
<i>Radyera farragei</i>													
<i>Rhagodia drummondii</i>													
<i>Rhagodia spinescens</i>													
<i>Rinzia carnosa</i>										x			
<i>Santalum acuminatum</i>	x		x			x			x	x		x	
<i>Santalum spicatum</i>							x			x	x	x	x
<i>Scaevola spinescens</i>						x	x			x	x	x	x
<i>Schoenia</i> sp.													
<i>Sclerolaena diacantha</i>	x								x				
<i>Sclerolaena fusiformis</i>							x						
<i>Senna artemisioides</i> subsp. <i>filifolia</i>				x	x	x						x	
<i>Sida intricata</i>													
<i>Sida spodochroma</i>					x								
<i>Solanum hoplopetalum</i>													
<i>Solanum lasiophyllum</i>													
<i>Solanum nummularium</i>				x									
<i>Solanum orbiculatum</i> subsp. <i>orbiculatum</i>													
<i>Solanum plicatile</i>													
<i>Spartothamnella</i> sp. Helena and Aurora range (P3)													
<i>Stenanthemum stipulosum</i>						x		x					
<i>Streptoglossa liatroides</i>									x				
<i>Stylidium dielsianum</i>													
<i>Swainsona colutoides</i>													
<i>Templetonia sulcata</i>		x											
<i>Thryptomene kochii</i>													
<i>Thysanotus patersonii</i>													
<i>Triodia</i> ? <i>desertorum</i>													
<i>Triodia irritans</i>						x							
<i>Velleia connata</i>													
<i>Verticordia</i> ? <i>helmsii</i>													
<i>Westringia cephalantha</i>													
<i>Westringia rigida</i>													
<i>Wurmbea tenella</i>													
<i>Zygophyllum apiculatum</i>					x								
<i>Zygophyllum</i> ? <i>compressum</i>							x						

APPENDIX D: SUMMARY OF VASCULAR PLANT SPECIES RECORDED BY PLANT COMMUNITY WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	PLANT COMMUNITY																											
	S1	S2	S5	W1	W2	W4	W5	W7	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27			
<i>Acacia ?ancistrophylla</i> var. <i>ancistrophylla</i>	x				x																							
<i>Acacia aneura</i> var. <i>aneura</i>	x				x																							
<i>Acacia burkittii</i>	x	x		x	x	x	x			x	x	x	x		x	x	x	x		x		x		x	x	x		
<i>Acacia colletioides</i>	x			x	x	x	x	x		x	x		x	x				x	x	x		x				x		
<i>Acacia coolgardiensis</i>	x																											
<i>Acacia crenulata</i> (P3)	x				x	x				x			x													x		
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)	x																									x		
<i>Acacia erinacea</i>	x		x		x	x	x			x	x		x	x			x	x		x		x		x				
<i>Acacia hemiteles</i>	x				x			x		x		x										x						
<i>Acacia jennerae</i>	x			x	x	x	x			x									x									
<i>Acacia prainii</i>	x			x	x													x	x	x		x						
<i>Acacia ramulosa</i>	x																x							x				
<i>Acacia resinimarginea</i>	x				x					x			x			x					x	x						
<i>Acacia sibina</i>	x	x			x					x		x	x							x	x					x		
<i>Acacia yorkkrakensis</i>	x																											
<i>Allocasuarina campestris</i>	x	x	x		x							x	x							x		x	x					
<i>Allocasuarina corniculata</i>	x																					x				x		
<i>Alyxia buxifolia</i>	x	x	x		x	x	x	x		x	x	x	x	x	x	x	x	x		x		x		x				
<i>Amphipogon caricinus</i>	x				x			x		x		x	x	x		x	x			x								
<i>Amyema miquelii</i>	x				x	x	x						x							x	x	x	x					
Asteraceae sp.	x				x																							
<i>Atriplex nummularia</i>	x			x	x	x	x			x	x			x				x	x	x		x		x				
<i>Atriplex vesicaria</i>	x			x	x	x	x		x	x	x		x					x	x	x		x						
<i>Austrostipa elegantissima</i>	x	x		x	x	x	x			x			x					x	x	x		x		x				
? <i>Austrostipa</i> sp.	x				x	x																						
<i>Baeckea crispiflora</i>	x				x			x		x						x						x						
<i>Baeckea elderiana</i>	x	x			x					x		x	x		x					x	x							
<i>Baeckea muricata</i>	x																											
<i>Beyeria brevifolia</i>	x																											
<i>Beyeria calycina</i> var. <i>minor</i>	x																											
<i>Callitris canescens</i>	x																									x		
<i>Callitris preissii</i>	x							x														x				x		
<i>Chamaexeros macranthera</i>	x				x			x								x						x						
<i>Codonocarpus cotinifolius</i>	x																											
<i>Cryptandra aridicola</i>	x																											
<i>Dampiera eriocephala</i>	x																											
<i>Daviesia benthamii</i> subsp. <i>Acanthoclona</i>	x																											

APPENDIX D: SUMMARY OF VASCULAR PLANT SPECIES RECORDED BY PLANT COMMUNITY WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	PLANT COMMUNITY																											
	S1	S2	S5	W1	W2	W4	W5	W7	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27			
<i>Dodonaea microzyga</i> var. <i>acrolobata</i>	x				x							x								x								
<i>Dodonaea stenozyga</i>	x				x						x		x	x				x		x		x						
<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>	x	x			x																							
<i>Drosera</i> sp.	x				x																							
<i>Eremophila alternifolia</i>	x				x					x				x														
<i>Eremophila caperata</i>	x				x	x		x		x												x						
<i>Eremophila decipiens</i>	x				x				x							x												
<i>Eremophila decipiens</i> subsp. <i>decipiens</i>	x	x	x		x	x	x			x			x	x		x				x		x	x					
<i>Eremophila granitica</i>	x			x	x		x			x			x		x			x	x	x		x						
<i>Eremophila interstans</i> subsp. <i>interstans</i>	x				x											x									x			
<i>Eremophila ionantha</i>	x			x	x	x	x		x	x			x	x				x	x	x		x		x				
<i>Eremophila oldfieldii</i> subsp. <i>angustifolia</i>	x	x			x		x			x	x	x	x	x						x		x						
<i>Eremophila oppositifolia</i> subsp. <i>angustifolia</i>	x				x	x				x	x	x	x		x			x		x				x				
<i>Eremophila scoparia</i>	x			x	x	x	x			x	x		x			x	x	x	x	x		x				x		
<i>Eucalyptus corrugata</i>	x	x		x	x	x	x			x	x	x	x	x			x	x	x	x	x	x		x				
<i>Eucalyptus ebbanoensis</i>	x																											
<i>Eucalyptus ewartiana</i>	x	x			x								x															
<i>Eucalyptus gracilis</i>	x												x															
<i>Eucalyptus horistes</i>	x	x			x			x																		x		
<i>Eucalyptus leptopoda</i> subsp. <i>subluta</i>	x																											
<i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i>	x				x			x		x			x	x	x	x	x	x		x	x	x	x	x				
<i>Eucalyptus oleosa</i> subsp. <i>oleosa</i>	x	x			x	x	x	x		x		x	x			x		x										
<i>Eucalyptus pileata</i>	x																					x						
<i>Eucalyptus platycorys</i>	x																											
<i>Eucalyptus ravida</i>	x			x	x	x	x			x	x		x							x								
<i>Eucalyptus salmonphloia</i>	x			x	x	x			x	x								x				x						
<i>Eucalyptus sheathiana</i>	x			x	x					x	x		x					x										
<i>Eucalyptus transcontinentalis</i>	x			x	x			x		x	x									x								
<i>Eucalyptus yilgarnensis</i>	x			x	x	x		x		x								x		x		x				x		
<i>Euryomyrtus maidenii</i>	x							x																				
<i>Exocarpos aphyllus</i>	x		x	x	x	x	x		x	x	x		x	x	x	x	x	x	x	x		x		x		x		
<i>Glischrocaryon aureum</i>	x																											
<i>Glycyrrhiza acanthocarpa</i>	x																											
<i>Gonocarpus confertifolius</i> var. <i>confertifolius</i>	x																											
<i>Goodenia elderi</i>	x																											
<i>Grevillea acuaria</i>	x			x	x	x	x			x	x		x							x		x		x		x		
<i>Grevillea buxcolii</i>	x																											

APPENDIX D: SUMMARY OF VASCULAR PLANT SPECIES RECORDED BY PLANT COMMUNITY WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	PLANT COMMUNITY																											
	S1	S2	S5	W1	W2	W4	W5	W7	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27			
<i>Podolepis capillaris</i>	x				x					x																		
<i>Prostanthera campbellii</i>	x	x			x								x							x	x	x						
<i>Prostanthera grylloana</i>	x	x	x		x					x			x		x	x				x		x	x					
<i>Pseudactinia</i> sp. Bungalbin Hill (F. H. & M. P. Molemans 3069)	x																											
<i>Radyera farragei</i>	x																											
<i>Rhagodia spinescens</i>	x				x	x				x										x								
<i>Santalum acuminatum</i>	x	x		x	x	x	x		x	x			x	x				x		x		x						
<i>Santalum spicatum</i>	x	x			x		x			x	x	x	x	x				x		x		x		x				
<i>Scaevola spinescens</i>	x	x	x		x	x	x			x	x	x	x	x	x	x	x	x		x		x	x	x	x	x		
? <i>Sclerolaena diacantha</i>	x				x	x	x			x			x															
<i>Sclerolaena fusiformis</i>	x				x		x			x	x		x	x						x				x				
<i>Senna artemisioides</i> subsp. <i>filifolia</i>	x	x		x	x	x	x			x	x		x	x	x	x	x	x	x	x		x		x		x		
<i>Solanum hoplopetalum</i>	x				x	x	x			x			x					x										
<i>Solanum nummularium</i>	x				x	x	x		x	x			x				x		x					x				
<i>Solanum plicatile</i>	x																											
<i>Swainsona colutoides</i>	x																											
<i>Thryptomene kochii</i>	x				x											x						x						
<i>Triodia</i> ? <i>desertorum</i>	x																					x				x		
<i>Triodia irritans</i>	x				x			x		x		x	x			x		x				x						
<i>Velleia connata</i>	x																											
<i>Westringia cephalantha</i>	x				x		x	x		x			x			x						x						
<i>Westringia rigida</i>	x	x			x	x					x		x	x								x						
<i>Wurmbea tenella</i>	x																											
<i>Zygophyllum apiculatum</i>	x				x					x			x						x	x				x				
<i>Acacia andrewsii</i>					x																							
<i>Acacia assimilis</i>					x		x													x			x	x				
<i>Acacia assimilis</i> subsp. <i>assimilis</i>					x		x													x								
<i>Acacia</i> ? <i>graniticola</i>					x																							
<i>Acacia inceana</i> subsp. <i>conformis</i>					x																							
<i>Acacia merrallii</i>				x	x	x				x								x	x			x						
<i>Acacia minyura</i>					x																							
<i>Acacia multispicata</i>								x																				
<i>Acacia quadrimarginea</i>		x			x	x												x										
<i>Acacia</i> ? <i>rigens</i>		x																										
<i>Acacia</i> sp.													x															
<i>Acacia tetragonophylla</i>		x	x		x		x			x	x	x	x	x		x				x		x	x	x				
<i>Acacia</i> undescribed (R. Maelin)		x																										

APPENDIX D: SUMMARY OF VASCULAR PLANT SPECIES RECORDED BY PLANT COMMUNITY WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

[illegible]

APPENDIX D: SUMMARY OF VASCULAR PLANT SPECIES RECORDED BY PLANT COMMUNITY WITHIN EXPLORATION TENEMENT E77/1115

Note: * indicates introduced (weed) species; P1, P2, P3 and P4 denote - Priority Flora Species (DEC 2008b)

SPECIES	PLANT COMMUNITY																										
	S1	S2	S5	W1	W2	W4	W5	W7	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27		
<i>Stenanthemum stipulosum</i>											X		X							X		X					
<i>Streptoglossa liatroides</i>					X				X													X					
<i>Stylidium dielsianum</i>								X																			
<i>Templetonia sulcata</i>					X	X	X		X	X	X		X		X			X				X					
<i>Thysanotus patersonii</i>		X			X					X			X					X		X			X	X			
<i>Verticordia ?helmsii</i>																									X		
<i>Zygophyllum ?compressum</i>										X										X							
<i>Zygophyllum iodocarpum</i>					X	X								X				X									

**APPENDIX E: GEOGRAPHICAL COORDINATES OF SURVEY SITES WITHIN EXPLORATION
TENEMENT E77/1115**

SITE	EASTING (mE) [MGA94]	NORTHING (mN) [MGA94]
1	784789	6621517
A01	785960	6621668
A02	786216	6622088
A03	790300	6619060
A04	789920	6619600
A05	790250	6619741
A06	790500	6619560
A07	789770	6619822
A08	789636	6620348
A09	789617	6620349
A10	789071	6620724
A11	790310	6621567
A12	790558	6621768
A13	790633	6622052
A14	790700	6622267
A15	790479	6622604
A16	790139	6622675
A17	789910	6622928
A18	789531	6622716
A19	789920	6622403
A20	789890	6622407
A21	790357	6620920
A22	790509	6620792
A23	790913	6621061
A24	791148	6621197
A25	790800	6620401
A26	791973	6620870
A27	792598	6621142
A28	792609	6620860
A29	792278	6620578
A30	792148	6620372
A31	792017	6620248
A32	791836	6620517
A33	791694	6620632
A34	790507	6620594
A35	790345	6620878
A36	790009	6621280
A37	789350	6622093
A38	789049	6622329
A39	789102	6623192
A40	789213	6623266
A41	789485	6623532
B01	785188	6622351
B02	785811	6622725
B03	790746	6618479
B04	789988	6618620
B05	789839	6618499
B06	787779	6618319
B07	787548	6619009
B08	787313	6619746
B09	786804	6621049
B10	791798	6623168
B11	791203	6623631
B12	790818	6623868
B13	790671	6623634

**APPENDIX E: GEOGRAPHICAL COORDINATES OF SURVEY SITES WITHIN EXPLORATION
TENEMENT E77/1115**

SITE	EASTING (mE) [MGA94]	NORTHING (mN) [MGA94]
B17	789981	6623158
B18	790797	6622562
B19	791719	6623019
B20	792086	6623608
B21	792595	6623504
B22	792689	6623592
B23	792752	6623236
B24	792390	6623044
B25	792182	6622401
B26	792408	6622491
B27	791034	6624762
B28	790815	6625144
B29	780080	6625440
B30	791616	6624150
B31	788316	6622703
B32	788113	6622978
B33	787773	6623318
B34	787607	6623777
B35	787523	6624296
B36	787492	6624948
B37	787509	6625477
B38	787722	6625961
B39	787712	6622142
B40	786970	6621665
B41	786513	6621388
C001	786461	6618951
C003	784215	6618769
C004	783555	6618599
C006	785742	6619842
C007	784701	6620410
C008	785265	6618228
C009	783663	6620368
C010	784791	6622155
C011	784342	6622033
C012	783644	6621890
C013	784773	6622998
C014	784471	6623393
C015	784056	6623354
C016	783023	6622658
C017	782518	6622909
C018	782146	6622967
C019	781718	6622988
C020	782077	6623515
C021	782386	6624115
C022	782905	6624408
C023	783032	6625536
C024	782533	6625460
C025	782192	6625311
C026	781887	6625047
C027	780537	6624786
C028	780833	6626178
C029	782978	6626442
C030	783485	6626582
C031	785253	6617802
C032	785231	6617524

**APPENDIX E: GEOGRAPHICAL COORDINATES OF SURVEY SITES WITHIN EXPLORATION
TENEMENT E77/1115**

SITE	EASTING (mE) [MGA94]	NORTHING (mN) [MGA94]
C036	788350	6627920
C037	788550	6627640
C038	789140	6627450
C039	789180	6628360
C040	789260	6629120
C041	788520	6628880
C042	782565	6627323
C043	783052	6627529
C044	779711	6631295
C045	779474	6631293
C046	779652	6630897
C047	779243	6630470
C048	779146	6630369
C049	778343	6631345
C050	774232	6632124
C052	775342	6632132
C053	775490	6631254
C054	775481	6631025
C055	775484	6630746
C056	775838	6630083
C057	775900	6629805
C058	775899	6629200
C059	775700	6630500
C060	778006	6631440
C061	778086	6630789
C062	778106	6630556
C063	778066	6630070
C064	777400	6629300
C065	777250	6629300
C066	777587	6629609
C067	775564	6632331
C068	775524	6632522
C069	775116	6634997
C070	775789	6634234
C071	776266	6634493
C072	775922	6633574
C073	767537	6629773
C074	767946	6629773
C075	768181	6629765
C076	768577	6629816
C077	769286	6629706
C078	769900	6629750
C079	769800	6629522
C080	769933	6629267
C081	769990	6629033
C082	769600	6628996
C083	768404	6629400
C084	765596	6625140
C085	765788	6624987
C086	766148	6624957
C087	765950	6624790
C088	765613	6625735
C089	765625	6626213
C090	765628	6626391
Camp 1	785847	6626095

**APPENDIX E: GEOGRAPHICAL COORDINATES OF SURVEY SITES WITHIN EXPLORATION
TENEMENT E77/1115**

SITE	EASTING (mE) [MGA94]	NORTHING (mN) [MGA94]
Carina Fauna CR3	788297	6626319
Carina Fauna CR4	787564	6624032
Carina Fauna CR5	787747	6623313
Carina Fauna CR6	787934	6622358
CR001	772340	6632175
CR002	772603	6632401
CR003	772537	6632782
CR004	772538	6632805
CR005	773466	6630501
CR006	773515	6630484
CR007	772340	6632175
CR008	772340	6632175
CR009	773417	6629810
CR010	773160	6629802
CR011	773035	6629976
CR013	773809	6631298
CR014	773745	6631006
CR015	774301	6630854
CR016	774502	6630502
CR017	774161	6630751
CR018	773277	6630874
CR019	773774	6632371
CR020	773726	6632140
CR021	774607	6632159
CR022	765666	6627792
CR023	765738	6627252
CR024	765967	6627198
CR025	766699	6627237
CR026	766900	6627400
CR027	765641	6626677
CR028	765124	6624367
CR029	765128	6623799
CR030	765166	6623298
CR031	765357	6623036
CR032	765583	6623453
CR033	765711	6623737
CR09A	765161	6623675
CR200	788400	6626300
CR201	788500	6626300
CR202	788650	6626300
CR203	786978	6626430
CR204	786361	6626273
CR205	789180	6626910
CR29A	765161	6623675
F1	786206	6618633
F2	785533	6619069
F3	785637	6619419
F4	785919	6619713
F5	783897	6626138
F6	783681	6626024
F7	784150	6625491
F8	784096	6624713
F9	784595	6624183
Gravel Pit	785459	6622055
JS01	787586	6627893

**APPENDIX E: GEOGRAPHICAL COORDINATES OF SURVEY SITES WITHIN EXPLORATION
TENEMENT E77/1115**

SITE	EASTING (mE) [MGA94]	NORTHING (mN) [MGA94]
Mine 1	787650	6627152
Mine 2	787184	6627135
Mine 3	787767	6627134

**APPENDIX F: GEOGRAPHICAL LOCATIONS OF PRIORITY SPECIES RECORDED IN
EXPLORATION TENEMENT E77/1115**

Species	Easting (mE) [GDA94]	Northing (mN) [GDA94]
<i>Pseudactinia</i> sp. Bungalbin Hill (F. H. & M. P. Molemans 3069) (P1)	765357 785231	6623036 6617524
<i>Acacia crenulata</i> (P3)	778006 778343 782386 784789 787523 787712 792390 792408	6631440 6631345 6624115 6621517 6624296 6622142 6623044 6622491
<i>Acacia eremophila</i> var. <i>variabilis</i> (P3)	782905 784471 785032 785188 785637	6624408 6623393 6623272 6622351 6619419
<i>Grevillea georgeana</i> (P3)	788520 788830 789485 789981 790041 790183 790818 791203 791616 792017 792148 792609	6628880 6628853 6623532 6623158 6623278 6623415 6623868 6623631 6624150 6620248 6620372 6620860
<i>Spartothamnella</i> sp. Helena and Aurora Range (P3)	789920 790671	6619600 6623634
<i>Daviesia purpurascens</i> (P4)	785919 787779 787548 791798 791203 784471 765967 766699 785533	6619713 6618319 6619009 6623168 6623631 6623393 6627198 6627237 6619069

