

# RAPID GROWTH PROJECT 5: JIMBLEBAR JUNCTION TO YANDI JUNCTION RAILWAY RESERVE FLORA AND VEGETATION ASSESSMENT

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*Prepared for*

*CALIBRE ENGENIUM JOINT VENTURE PTY LTD*



**Job No: 08.165**

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Australia

# RAPID GROWTH PROJECT 5: JIMBLEBAR JUNCTION TO YANDI JUNCTION RAILWAY RESERVE FLORA AND VEGETATION ASSESSMENT

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## **PERMITS**

This flora survey was undertaken under the following licences issued by the Department of Environment and Conservation: SL008010 to Mr Todd Edwards, SL008008 to Ms Rebecca McIntyre, SL008006 to Ms Natalie Pawley and SL008056 to Ms Kerryn McCann.

## **STATEMENT OF LIMITATIONS**

### **Scope of Services**

This environmental site assessment report ('the report') has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and ENV.Australia Pty Ltd (ENV) ('scope of services'). In some circumstances the scope of services may have been limited by factors such as time, budget, access and/or site disturbance constraints.

### **Reliance on Data**

In preparing the report, ENV has relied on data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ('the data'). Except as otherwise stated in the report, ENV has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or in part on the data, those conclusions are contingent upon the accuracy and completeness of the data. ENV will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, unavailable, misrepresented or otherwise not fully disclosed to ENV.

### **Environmental Conclusions**

In accordance with the scope of services, ENV has relied on the data and has conducted environmental field monitoring and/or testing in the preparation of the report. The nature and extent of monitoring and/or testing conducted is described in the report.

Within the limitations imposed by the scope of services, the monitoring, testing, sampling and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, express or implied, is made.

### **Report for Benefit of Client**

The report has been prepared for the benefit of the Client and for no other party. ENV assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including, without limitation, matters arising from any negligent act or omission of ENV or for any loss or damage suffered by any other party relying on the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions, and should make their own enquiries and obtain independent advice in relation to such matters.

### **Other Limitations**

ENV will not be liable to update or revise the report to take into account any events or circumstances occurring or facts becoming apparent after the date of the report.

The scope of services did not include any assessment of the title to or ownership of the properties, buildings and structures referred to in the report, nor the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.



## EXECUTIVE SUMMARY

ENV.Australia Pty Ltd was commissioned in April 2008 by Calibre Engenium Joint Venture to undertake a Level Two flora survey of the Jimblebar to Yandi railway reserve from Jimblebar Junction (chainage 401 km) to Yandi Junction (chainage 281 km).

The field survey took place from 15-23 April 2008. Twenty-eight person-days were invested in the field survey, which included the compilation of a species inventory, a Declared Rare and Priority Flora search, assessment of vegetation condition, and mapping of vegetation communities and introduced species. There were 353 taxa comprising 123 genera recorded from 123 quadrats and 14 relevés established in the project area. The families most commonly represented were Poaceae (62 taxa recorded), Mimosaceae (40 taxa) and Malvaceae (38 taxa). The most common genera were *Acacia* (with 38 taxa recorded), *Senna* (13 taxa) and *Sida* (13 taxa).

No species listed under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) or Declared Rare Flora species were recorded during the survey. There were 4 Priority Flora species recorded in the project area (including the buffer zone): *Eremophila* sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004) (Priority 1), *Bulbostylis burbridgeae* (Priority 3), *Goodenia nuda* (Priority 3) and *Rostellularia adscendens* subsp. *adscendens* var. *latifolia* (Priority 3).

There were 11 introduced species were recorded: *\*Aerva javanica* (Kapok bush), *\*Bidens bipinnata* (Bipinnate Beggartick), *\*Cenchrus ciliaris* (Buffel Grass), *\*Cenchrus setiger* (Birdwood grass), *\*Chloris virgata* (Feathertop Rhodes Grass), *\*Cucumis melo* subsp. *agrestis* (Ulcardo Melon), *\*Cynodon dactylon* (Couch), *\*Malvastrum americanum* (Spiked Malvastrum), *\*Portulaca oleracea* (Purslane), *\*Setaria verticillata* (Whorled Pigeon Grass), and *\*Vachellia farnesiana* (Mimosa Bush). No taxa recorded in the project area were listed as Declared plants under the Agriculture and Related Resources Protection Act 1979.

There were 14 vegetation communities mapped. The plains were generally characterised by *Corymbia hamersleyana* / *C. opaca* / *Acacia aneura* / *Eucalyptus xerothermica* / *E. gamophylla* scattered trees or open woodland over mixed *A. synchronicia*, *A. bivenosa*, *A. pruinocarpa*, *A. dictyophleba* and other *Acacia* species shrubland over low *Senna* / *Sida* shrubland over *Triodia pungens* / *T. schinzii* / *T. lanigera* / *T. basedowii* hummock grassland over *\*Cenchrus ciliaris* / *Chrysopogon fallax* tussock grassland over *Cleome viscosa* very open hermland.

Rocky hills in the southern end of the project area were characterised by *Eucalyptus leucophloia* subsp. *leucophloia* open woodland over mixed *Acacia* shrubland over *Triodia wiseana* / *T. pungens* / *T. sp.* Shovelanna Hill (S. van Leeuwen 3835) hummock grassland over *\*Cenchrus ciliaris* tussock grassland.

The floodplains of the project area were characterised by *Corymbia aspera* open woodland over mixed *Acacia* species shrubland over *Triodia pungens* hummock grassland over \**Cenchrus ciliaris* tussock grassland.

Four riparian vegetation communities occurred in the project area, and were generally characterised as *Eucalyptus xerothermica* / *E. victrix* / *Acacia citrinoviridis* open woodland to tall shrubland over mixed *Acacia* species shrubland over *Triodia pungens* hummock grassland over \**Cenchrus ciliaris* tussock grassland.

No communities listed as Threatened Ecological Communities under the Environment Protection and Biodiversity Act 1999 (Cth) or as Priority Ecological Communities by the Department of Environment and Conservation were recorded in the project area.

Vegetation condition of the Jimblebar Junction to Yandi Junction railway reserve was described as Completely Degraded to Very Good, with most sites described as being in Poor to Very Poor condition. There was high disturbance from clearing, grading, development for railway infrastructure, railway operation, pastoralism and introduced species. The railway line and access tracks occupied approximately 40 m width of the linear railway reserve (50% of the total reserve) – vegetation in these areas was Completely Degraded. Most sites had Moderate to Old fire ages.

Three Beard vegetation types were mapped for the project area - shrub steppe (e<sub>25</sub>Sr.t<sub>2</sub>Hi), sparse low woodland (a<sub>1</sub>Lp), and tree steppe (e<sub>16</sub>Lr.t<sub>3</sub>Hi). All 3 vegetation types are reported to exist at 100% of their pre-European settlement extent in Western Australia. Therefore, there is considered to be no constraint to clearing with regard to the regional significance of the vegetation types in the railway reserve.

Ten land systems have been mapped by van Vreeswyk *et al.* for the project area: Fan, Divide, Urandy, Newman, Fortescue, Rocklea, Boolgeeda, Washplain, River and Marillana land systems. The Newman, Rocklea, Boolgeeda, Divide and River cover a large portion of the Pilbara bioregion and are geographically widespread. The Fan, Urandy and Washplain cover a smaller portion of the Pilbara bioregion, but are quite geographically widespread. The Fortescue and Marillana land systems are smaller and more localised, although they are locally abundant in the Fortescue region. Considering this, and the small size (4.8 km<sup>2</sup>) and linear nature of the project area, the regional representation of these land systems in the project area is not expected to be significantly decreased by the proposed development.

# 1 INTRODUCTION

## 1.1 THE PROJECT

### 1.1.1 Objectives

ENV.Australia Pty Ltd ('ENV') was commissioned in April 2008 by the Calibre Engenium Joint Venture ('CEJV') to undertake a Level Two flora and vegetation survey of the Jimblebar Junction to Yandi Junction railway reserve ('the project area').

The objectives of the flora and vegetation assessments were to:

- document all plant species in the project area;
- document and describe all plant species of conservation significance in the project area;
- document and describe the vegetation condition in the project area;
- document and describe the vegetation communities in the project area; and
- describe the conservation significance of vegetation communities in the project area.

### 1.1.2 Location

The project area is in the Pilbara region of Western Australia (Figure 1). The project area is an 80 m wide railway reserve (approximately 120 km long) along the BHP Billiton Iron Ore railway from Jimblebar Junction (chainage 401 km) to Yandi Junction (chainage 281 km). The southern end of the project area is approximately 10 km north-east of the town of Newman, and runs in a north-westerly direction for 120 km before ending at Yandi Junction.

The project area consists of mulga plains, sandplains and floodplains, with low rocky hill slopes and undulating hills in the southern section around Jimblebar Junction. A number of drainage lines traverse the project area, flowing from the Hamersley ranges onto the Fortescue Marsh, the most notable being Weeli Wolli Creek.

### 1.1.3 Previous Biological Studies

Most of the flora of the Pilbara has not been recorded systematically, with significant exceptions being flora studies by Burbidge (1959) and Beard (1975). More recently, the Department of Agriculture (van Vreeswyk *et al.* 2004)

conducted an inventory and condition survey of the Pilbara. This report provides a regional inventory of flora species and a description of land resources.

In recent decades, a boom in large-scale regional resource development projects has resulted in a significant amount of site-specific biological survey work being carried out in the region, most of which is undertaken to obtain environmental approvals.

A number of flora surveys have been conducted in the vicinity (i.e. within approximately 10 km) of the project area in the last 15 years. Those most relevant to the current survey are:

- Mindy North (ENV 2007a);
- Coondiner and Mindy East (ENV 2007b)
- Jimblebar (Biota 2004; *ecologia* Environment 1996; 1999; 2004a, b, c, d; 2005a; ENV 2007c; Endersby 1994; 2005);
- Orebody 23/24/25 (*ecologia* Environment 1998a, b; 2004e, f; 2005b; ENV 2006a, b); and
- Marillana (*ecologia* Environment 2007).

A bibliography of flora and vegetation survey work undertaken near the project area is given at the end of this report. In addition, a comprehensive bibliography of biological survey work undertaken in the Pilbara is available at <http://science.dec.wa.gov.au/projects/pilbaradb/>.

## **1.2 PHYSICAL ENVIRONMENT**

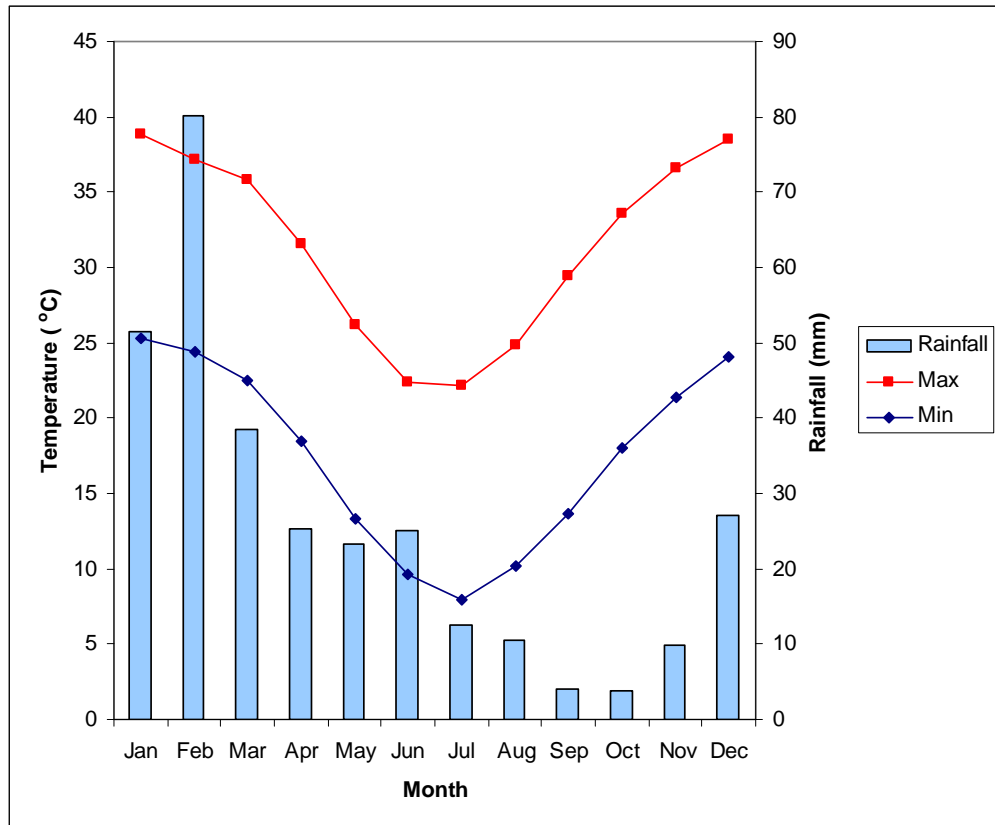
### **1.2.1 Climate**

The project area is in the Pilbara region of Western Australia. The nearest accessible climate data to the project area is available from the Newman Bureau of Meteorology ('BOM') weather station.

The Pilbara has an arid-tropical climate with 2 distinct seasons, a hot summer from October to April and a mild winter from May to September. The area experiences a wide range of temperatures, with an average temperature of 31.4°C (1965-2003). In summer, maximum temperatures may reach 46.0°C, whilst in winter, minimum temperatures may reach -2.0°C (BOM 2008).

Rainfall in the Pilbara is often sporadic, and can occur in summer and winter. The Newman area has average annual rainfall of 310.2 mm (1965-2003) (Figure 2). Summer rainfall is typically associated with tropical storms in the north, or tropical

cyclones that cross the coast and move inland. Winter rainfall is generally less significant, and is commonly the result of cold fronts moving north-easterly across the State.



**Figure 2:** Average monthly rainfall and maximum and minimum temperatures at Newman from 1965-2003 (BOM 2008).

## 1.2.2 Geology

Thorne and Tyler (1996) and Tyler, Williams and Hunter (1990) mapped the geology of the area as comprising 6 units:

Qa: Alluvium: unconsolidated silt, sand and gravel.

Qw: Alluvium and colluvium: red-brown sandy and clay soil.

Ho: Boolgeeda Iron Formation: fine-grained, finely laminated, dark grey-brown to black, flaggy iron-formation; minor chert, jaspilite and shale.

Qs: Aeolian sand: in sheets and longitudinal dunes.

Czk: Calcrete: sheet carbonate usually formed in major drainage lines.

Ql: Lacustrine deposits: clay and silt; claypan (predominantly freshwater) deposits.

### 1.2.3 Soils

The soils of the project area have been broadly mapped by Bettenay, Churchward and McArthur (1967) as comprising 6 units:

Fa 13: Loamy soils with weak pedological development; largely associated with the Fortescue and Hamersley ranges. Shallow coherent and porous loamy soils; ranges of banded jaspilite and chert along shales, dolomite and iron formations; some area of ferruginous duricrust and narrow winding valley plains and steeply dissected pediments. The soils are frequently shallow and stony, with little soil over. Chief soils are stony earthy loams.

Oc68: Soils with contrasting texture profiles; dissected stony pediments with some steep stony hills. Chief soils are alkaline red soils, but some areas of neutral red soils occur.

Ja1: Plastic clay soils; coherent and porous clay; extensive valley plains largely associated with the Fortescue River, chief soils are earthy clays. Some areas of calcareous and siliceous sands on coastal dunes.

Ab20: Sandy soils with weak pedological development; isolated sandplains and dune fields; chief soils are red earthy sands and loose red sands on the dunes.

My55: Red earths of the northern Hamersley Ranges; gently sloping outwash plains, coarse gravels are extensive, chief soils are neutral red earths.

Mz25: Red earths of the Fortescue valley; surface cover of stony gravels close to ranges and hills; chief soils are acid red earths with some neutral red earths. Associated areas of calcrete earths and loams on kunkar, and some hard red soils around creek lines.

### 1.2.4 Biogeography

#### Interim Biogeographic Regionalisation for Australia

The Interim Biogeographic Regionalisation for Australia (IBRA) divides Australia into 85 bioregions based on major biological and geographical/geological attributes (Thackway and Cresswell 1995). These bioregions are subdivided into 404 subregions as part of a refinement of the IBRA framework (Department of Environment, Water, Heritage and the Arts 2007).

The project area is in the Pilbara bioregion and lies on the boundary of the Hamersley and Fortescue subregions, as per IBRA.

Kendrick (2001a) describes the Hamersley subregion as “mulga low woodland over bunched grasses on fine textured soils in valley floors; and *Eucalyptus leucophloia* over *Triodia brizoides* on skeletal soils on the ranges”.

Kendrick (2001b) describes the Fortescue subregion as “alluvial plains and river frontages; extensive salt marshes, mulga-bunch grass, and short grass communities on alluvial plains; deeply incised gorge systems; and river gum woodlands on fringe drainage lines”.

### **Beard Vegetation Mapping**

Vegetation mapping of the Pilbara region has been completed on a broad scale (1:1,000,000) by Beard (1975). The project area is in the Eremaean Botanical Province of Western Australia, in the Fortescue Botanical District, and on the boundaries between the Hamersley Plateau and Fortescue Valley, as per Beard (1975).

Beard (1975) mapped the project area as 3 vegetation associations:

- e<sub>16</sub>Lr.t<sub>3</sub>Hi: Hummock grasslands, low tree steppe; snappy (*Eucalyptus leucophloia* subsp. *leucophloia*) over *Triodia wiseana*. Shepherd, Beeston and Hopkins (2002) report that 100% of the pre-European settlement extent of this vegetation association remains in Western Australia.
  
- a<sub>1</sub>Lp: Sparse low woodland; mulga (*Acacia aneura*), discontinuous in scattered groups. Shepherd, Beeston and Hopkins (2002) report that 100% of the pre-European settlement extent of this vegetation association remains in Western Australia.
  
- e<sub>25</sub>Sr.t<sub>2</sub>Hi: Hummock grasslands, shrub steppe; twin-leaf mallee (*Eucalyptus gamophylla*) over hard spinifex. Shepherd, Beeston and Hopkins (2002) report that 100% of the pre-European settlement extent of this vegetation association remains in Western Australia.

### **Land System Mapping**

Land system mapping is based on regional patterns in topography, soils and vegetation. The most recent land system mapping of the Pilbara bioregion, in which the current project area lies, was completed by van Vreeswyk *et al.* (2004). The mapping classifies the Pilbara region into 102 land systems. The Jiblebar to Yandi railway reserve includes 5 main land systems, as listed below.

- Fan: Fan: Washplains and Gilgai plains supporting groved mulga shrublands and minor tussock grasslands. Forms 0.8% of the Pilbara bioregion.

- Div: Divide: Sandplains and occasional dunes supporting shrubby hard spinifex grasslands. Forms 2.9% of the Pilbara bioregion.
- Ury: Urandy: Stony plains, alluvial plains and drainage lines supporting shrubby soft spinifex grasslands. This landform is present around Marillana. Forms 0.7% of the Pilbara bioregion.
- New: Newman: Rugged jaspilite plateaux, ridges and mountains; supporting hard spinifex grasslands; forms 8.0% of the Pilbara bioregion.
- Ftc: Fortescue: Alluvial plains and floodplains supporting patchy grassy woodlands and shrublands and tussock grasslands. This landform is present at the Yandi Junction end of the railway reserve. Forms 0.3% of the Pilbara bioregion.

The following 5 minor land systems cover approximately 10% of the project area:

- Roc: Rocklea: Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex (and occasionally soft spinifex) grasslands. Forms 12.7% of the Pilbara bioregion.
- Bgd: Boolgeeda: Stony lower slopes and plains before hill systems supporting hard and soft spinifex grasslands and mulga shrublands; forms 4.3% of the Pilbara bioregion.
- Wsp: Washplain: Hardpan plains supporting groved mulga shrublands. Forms 0.5% of the Pilbara bioregion.
- Riv: River: Active floodplains and major rivers supporting grassy Eucalypt woodlands, tussock grasslands and soft spinifex grasslands. Forms 2.3% of the Pilbara bioregion.
- Mra: Marillana: Gravelly plains with large drainage foci and unchannelled drainage tracts supporting snakewood shrublands and grassy mulga. Forms 0.2% of the Pilbara bioregion.

### **1.2.5 Potentially Occurring Flora Species and Vegetation Communities of Conservation Significance**

From previous surveys conducted in the area and a database search, 2 Declared Rare Flora and EPBC listed species and 35 Priority species were identified as potentially occurring in the area. Definitions of the conservation codes and descriptions of these species are presented in Appendix A.

From previous surveys conducted in the area, seventeen introduced plant species were identified as potentially occurring in the project area, and these species are listed in Appendix B.



One Threatened Ecological Community (TEC) occurs near the project area, the Ethel Gorge Stygobiont Community. This community is an assemblage of at least 36 species of stygofauna, 7 of which are endemic to the Newman area. It is not a floral community, and therefore will not be considered in this report. No Priority Ecological Communities (PEC) occur near the project area. Definitions for ecological communities are presented in Appendix C.

## 2 METHODOLOGY

### 2.1 BACKGROUND TO SURVEY METHODOLOGY

#### 2.1.1 Protection of Flora and Vegetation

Flora species are protected formally and informally by various legislative and non-legislative measures, which are as follows:-

##### **Legislative Protection**

- Environment Protection and Biodiversity Conservation Act 1999 (Cth);
- Wildlife Conservation Act 1950 (WA); and
- Environmental Protection Act 1986 (WA).

##### **Non-Legislative Protection**

- Western Australian Department of Environment and Conservation ('DEC') Priority lists for flora and vegetation; and
- informal recognition of locally significant populations.

A short description of these Acts is given below. Definitions of the species conservation codes and ecological community categories are provided in Appendix A.

##### ***Environment Protection and Biodiversity Conservation Act 1999 (Cth)***

The Environment Protection and Biodiversity Conservation Act 1999 (Cth) ('the EPBC Act') aims to protect matters of national environmental significance, which are detailed in Appendix A.

Under the EPBC Act, the Commonwealth Department of Environment, Water, Heritage and the Arts ('DEWHA') lists threatened species and Threatened Ecological Communities in certain categories determined by criteria set out in the Act ([www.environment.gov.au/epbc/index.html](http://www.environment.gov.au/epbc/index.html)).

The Act provides for substantial penalties for any unauthorised actions likely to adversely affect matters of national environmental significance. It also provides for a national environmental assessment and approvals process for proposed actions likely to affect the prescribed matters of national environmental significance. If a proposed action is approved subject to certain conditions, the proponent of the action does not contravene the Act if the action is carried out in accordance with the conditions imposed.

Projects likely to cause impacts on matters of national environmental significance (as defined in the EPBC Act – see Appendix A) should be referred to the DEWHA for assessment under the EPBC Act.

In addition, a referral to the DEWHA will not necessarily result in the formal assessment process being triggered, as the Minister has the discretion to determine that a project may proceed without further assessment.

### ***Wildlife Conservation Act 1950 (WA)***

The DEC lists flora taxa under the provisions of the Wildlife Conservation Act 1950 (WA) ('WC Act') as protected according to their need for protection (see Appendix A).

Flora species are given Declared Rare status when their populations are geographically restricted or are threatened by local processes. In addition, under the WC Act, by Notice in the Western Australian Government Gazette of 9 October 1987, all native flora (spermatophytes, pteridophytes, bryophytes and thallophytes) is protected throughout the State.

The Act makes it an offence to 'take' threatened species without an appropriate license. There are financial penalties for contravening the Act.

### ***Environmental Protection Act 1986 (WA)***

Declared Rare Flora and TECs are given special consideration in environmental impact assessment, and areas covered by TECs are Environmentally Sensitive Areas under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

The protection of Declared Rare Flora and TECs is a 'clearing principle' for assessing applications for permits to clear native vegetation, where exemptions for a clearing permit under the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA) do not apply.

### ***DEC Priority Lists***

The DEC lists 'Priority' flora species that have not been assigned statutory protection under the WC Act, but which are under consideration for declaration as 'Rare Flora' under the Act. Species assessed as Priorities 1-3 (see Appendix A) are in urgent need of further survey, whilst Priority 4 species require monitoring every 5-10 years (see Appendix A for definitions).

In addition, the DEC maintains a list of PECs which identifies those communities that need further investigation before possible nomination for TEC status (see below).

Although DEC Priority species have no formal legal protection, they are under consideration as 'Scheduled' flora under the WC Act.

The DEC identifies and lists vegetation communities believed to be threatened. Once listed, a community is a PEC, but only when endorsed by the Minister does it become a TEC, and therefore protected as an environmentally sensitive area under land clearing regulations.

### **Informal Recognition of Threatened Flora and Vegetation**

Certain populations or communities may be of local significance or interest because of their patterns of distribution and abundance. For example, flora may be locally significant because they are range extensions to the previously-known distribution or are newly-discovered taxa (and therefore have the potential to be of more than local significance). In addition, many species are in decline as a result of threatening processes (primarily land clearing), and relict populations of such species assume local importance.

Despite the lack of any formal protection for species in this category, project proponents are strongly advised to be aware of and to be sensitive to community concerns as to locally significant species or communities.

#### **2.1.2 Guidance Statement No. 51**

A baseline flora survey for the environmental impact assessment process should provide a comprehensive list of species in a given area. There are 2 formal levels of flora survey as delineated by the Environmental Protection Authority ('EPA'):

- *Level One:* a 'desktop' study to collate historical knowledge conducted in conjunction with a reconnaissance survey (site inspection); and
- *Level Two:* an intensive study that incorporates a detailed and comprehensive survey to characterise the flora present, combined with a Level One survey.

Where the scale and nature of the proposed impact is moderate to high, a Level Two survey will be required in most areas of the State, and is typically required for resource development projects. The expectations of the EPA are set out in *Guidance Statement No. 51* (EPA 2004). Specifically, it details the extent, design and intensity of field surveys for environmental assessment in Western Australia.

The methodology of the current survey, a Level Two survey, has been developed to be compliant with the requirements of *Guidance Statement No. 51*. This level of survey work is required because of the high level of disturbance (clearing) to the flora proposed for the project area.

### 2.1.3 Introduced Species

The Environmental Weed Strategy for Western Australia (Department of Conservation and Land Management 1999) contains criteria for the assessment and ranking of weeds in terms of their environmental impact on biodiversity. The Strategy defines environmental weeds as ‘plants that establish themselves in natural ecosystems and proceed to modify natural processes, usually adversely, resulting in the decline of the communities they invade.’

Plants may also be ‘Declared’ by the Agriculture Protection Board under the Agriculture and Related Resources Protection Act 1979 (WA) (‘ARRP Act’). Declared Plants are gazetted under 5 categories (P1-P5), which define the action required. Details of the definitions of these categories are provided in Appendix B. A declaration may apply to the whole State, to districts, individual properties or even to single paddocks. If a plant is Declared, landholders are obliged to control that plant on their properties (Richardson 2007).

## 2.2 SURVEY METHODOLOGY

The survey was carried out in a manner designed to be compliant with EPA requirements for the environmental surveying and reporting for flora and vegetation in Western Australia, as set out in the following documents:

- *Environmental Protection of Native Vegetation in Western Australia: Clearing of Native Vegetation with Particular Reference to Agricultural Areas. Position Statement No.2* (EPA 2000);
- *Terrestrial Biological Surveys as an Element of Biodiversity Protection. Position Statement No. 3* (EPA 2002); and
- *EPA Guidance for the Assessment of Environmental Factors: Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia No. 51* (EPA 2004).

The methodology for the current work involved the following key steps:

### 2.2.1 Desktop Survey

The purpose of a desktop survey is to gather background information on the project area and the flora species and vegetation it may support. This involves a search of literature, data, aerial photographs and maps for information relating to landforms likely to be found in the area.

A review of literature and a request for a database search was submitted to the DEC to ascertain whether any DRF or Priority Flora or any TECs or PECs had

been recorded in the project area and surrounding areas. The DEC search was conducted for a 7km zone around the railway line between Newman and Yandi.

These sources were used to compile a list of potential DRF, Priority Flora, TECs and PECs that may occur within the project area. A list of potentially occurring introduced plant species was also compiled based on a review of previous surveys.

### **2.2.2 Field Survey**

The field survey was conducted from 15-23 April 2008, with 28 person-days invested in the field survey.

Field staff collected flora information using 50 m x 50 m quadrats (2500 m<sup>2</sup>), as preferred by DEC (pers. comm. S. van Leeuwen, DEC), relevés and opportunistic collections. Where normal quadrats could not be established because of the narrowness of the railway reserve, quadrat dimensions were altered to fit the project area, whilst maintaining the same survey area of 2500 m<sup>2</sup>.

There were 123 quadrats and 14 relevés executed (Figure 3). The quadrats were selected as being representative of the flora and vegetation of the project area. Flora survey quadrat locations are presented in Appendix D, and photographs are presented in Appendix E.

Data was recorded using standardised field sheets. The information noted at each site included landscape features, soils, bare ground and disturbance levels (condition scales and fire ages are presented in Appendix F). Each species of plant at each site was recorded, including information on height and percentage cover (data sheets are presented in Appendix G). This enabled more accurate vegetation mapping to be undertaken, and provided greater detail of the species present. The opportunistic collections and relevés focussed mainly on the location of new flora taxa not recorded in the quadrats, and in particular, DRF and Priority Flora, and flora not well known or not currently described.

### **2.2.3 Taxonomic Identification**

Where field identification of plant taxa was not possible, specimens were collected systematically for later identification by taxonomists utilising the resources of the Western Australian Herbarium ('WAH'), through comparison with the reference collection and use of identification keys.

The project species list was checked against FloraBase (Western Australian Herbarium 2008) and Atkins (2008) Declared Rare and Priority Flora list to determine whether any of the species were listed as Rare or Priority species. Species were also checked against the EPBC Act listing of Threatened species to determine whether any were federally listed.

Taxonomic identification was verified and completed by Malcolm Trudgen, who separated species beyond published treatments and keys, to recognise currently undescribed species, subspecies, variants and affiliates. Future taxonomic research may show that these species are important to conservation. Little is known of the taxonomy of the Pilbara region, and therefore no comment as to the importance of these species can be made. Deviations in nomenclature between the WAH and this report exist on the advice of Malcolm Trudgen.

#### 2.2.4 Vegetation Communities Analysis

Vegetation communities were investigated by cluster and non-metric multivariate dimensional scaling analysis of quadrat data. However, definitive vegetation communities were not easily identified using this analysis. Therefore final vegetation community groups were decided by visual comparison of composition and structure.

Once the vegetation communities were determined, they were checked against the listing of State and Federal TECs and PECs.

#### 2.2.5 Vegetation Communities Mapping

Vegetation mapping was executed in the field and finalised in the office once community analysis had been completed. Field mapping was carried out using GPS (Magellan) and GIS (OziExplorer and Microstation V7.0) hardware and software. The details of each site were interpreted and vegetation communities were described. The boundaries of the vegetation communities were drawn over aerial photographs with the aid of GPS coordinates taken throughout the field survey. The vegetation communities were then digitised and produced as manipulable electronic mapping data using Microstation V7.0. ESRI shape files were created with ARCVIEW 9.2.

### 2.3 FLORA SURVEY LIMITATIONS AND CONSTRAINTS

It is important to note the specific constraints imposed on surveys. Constraints are often difficult to predict, as is the extent to which they influence survey effort. Survey constraints of the flora and vegetation survey are detailed in Table 1.

**Table 1:** Limitations and Constraints Associated with the Project Area

Variable	Impact on Survey Outcomes
Access Problems	All areas were accessible and adequately surveyed during the survey.
Experience levels	The botanists who executed these surveys were practitioners suitably qualified in their respective fields. <ul style="list-style-type: none"> <li>Coordinating Botanist: Todd Edwards;</li> </ul>

Variable	Impact on Survey Outcomes
	<ul style="list-style-type: none"> <li>• Field Staff: Todd Edwards (Botanist), Rebecca McIntyre (Senior Botanist), Natalie Pawley (Environmental Biologist) and Kerryn McCann (Environmental Biologist).</li> <li>• Taxonomy: Todd Edwards (Botanist), Ciaran Sgherza (Botanist), and Malcolm Trudgen (Taxonomist).</li> <li>• Data Interpretation: Todd Edwards (Botanist);</li> </ul>
Timing <sup>1</sup> , weather, season.	<p>The survey was undertaken in Autumn from 15-23 April 2008. The area had received 175.6 millimetres of rain in the 3 months before assessment (Jan-March) (BOM 2008). This is more rainfall than the long-term average of 111.8 mm (1965-2003) for the same period (Jan-March).</p> <p>Flora composition changes over time, with flora species having specific growing periods, especially annuals and ephemerals (some plants lasting for a markedly brief time, some only for a day or two). Therefore the results of future botanical surveys in this location may differ from the results of this survey.</p>
Scope: Life forms	<p>Flowers and fruits were available for most perennial species in the project area, which allowed detailed taxonomic identification. However, it is possible that not all annual and ephemeral species were recorded in the project area because of the below-average summer rainfall preceding the survey.</p>
Sources of information	<p>At the bioregion level, the Pilbara has been relatively well studied in recent years. Numerous flora and vegetation assessment surveys have been undertaken in the area as part of environmental impact assessment processes.</p>
Completeness	<p>The field survey recorded 353 taxa, including species, subspecies, and variants. This species richness is comparatively high. For example, 200 taxa were recorded in a 5000 ha area at Mindy North (ENV 2007b), and 244 were recorded in a 16 000 ha area at Marillana (<i>ecologia</i> Environment 2007).</p>

<sup>1</sup> Guidance Statement 51 (EPA 2004) stipulates that flora and vegetation surveys should be undertaken following the season that contributes the greatest rainfall in the region. In the Eremaean Province, this is after summer. However, in this Province rainfall is sporadic, and short-term variations in normal weather patterns (e.g. drought) may necessitate supplementary survey work at other times of year or in later years to take into account temporal changes in diversity.



## 3 RESULTS

### 3.1 FIELD SURVEY

#### 3.1.1 Flora

There were 42 families, 123 genera and 353 taxa recorded in the survey area (342 native flora taxa and 11 introduced): refer to Appendix H for the flora species list and Appendix I for the species matrix. Thirteen families were represented by only 1 taxon.

The plant families most frequently recorded from the survey were as follows:

- Poaceae 62 taxa;
- Mimosaceae 40 taxa; and
- Malvaceae 38 taxa.

The most common genera were *Acacia* (38 taxa), *Senna* (13 taxa) and *Sida* (13 taxa). The most common taxa recorded were \**Cenchrus ciliaris* (123 sites), *Acacia synchronicia* (92 sites) and *Cleome viscosa* (90 sites).

Average plant species richness was 27.98 taxa per quadrat.

#### 3.1.2 Flora of Conservation Significance

No Endangered or Vulnerable species pursuant to the EPBC Act were located during the survey.

No plant taxa gazetted as Declared Rare pursuant to the WC Act were located in the survey area.

Four Priority Flora species were located in the survey area (Table 2), these were *Eremophila* sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004), *Bulbostylis burbidgeae*, *Goodenia nuda* and *Rostellularia adscendens* subsp. *adscendens* var. *latifolia*.

**Table 2:** Priority Flora Species Recorded in the Project Area

Taxa	Conservation Code: STATE	Site Number	# Easting	# Northing
<i>Eremophila</i> sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)	P1	YB02	792775	7420667
		YBOP.02	794371	7423430
<i>Bulbostylis burbridgeae</i>	P3	YA25	742171	7495257
<i>Goodenia nuda</i>	P3	YB22	796505	7440001
		YB25	797204	7437217
		YB26	795982	7441521
		YB27	796757	7439123
		YB29	793932	7445544
		YB41	788830	7451661
		YB55	778629	7464668
		YAOP22TE	751039	7490908
<i>Rostellularia adscendens</i> subsp. <i>adscendens</i> var. <i>latifolia</i>	P3	YA34	774037	7472715
		YB50	775135	7470560
		YB59	774816	7471229

\*Australian Geocentric 1994 (GDA94), Zone 50 K

### 3.1.3 Introduced Flora

There were 11 introduced species were recorded in the project area: *\*Aerva javanica* (Kapok Bush), *\*Bidens bipinnata* (Bipinnate Beggartick), *\*Cenchrus ciliaris* (Buffel Grass), *\*Cenchrus setiger* (Birdwood Grass), *\*Chloris virgata* (Feathertop Rhodes Grass), *\*Cucumis melo* subsp. *agrestis* (Ulcardo Melon), *\*Cynodon dactylon* (Couch), *\*Malvastrum americanum* (Spiked Malvastrum), *\*Portulaca oleracea* (Purslane), *\*Setaria verticillata* (Whorled Pigeon Grass) and *\*Vachellia farnesiana* (Mimosa Bush).

The locations of these introduced species are mapped in Figure 3 and are presented in Appendix J. Note that not all the locations of *\*Cenchrus ciliaris* and *\*Aerva javanica* are shown in Figure 3. These 2 species were observed growing along almost the entire length of the rail line, forming dense low shrubland in places.

The ratings and criteria for these introduced species according to the Environmental Weed Strategy for Western Australia are given in Table 3 (refer to Appendix B for the definitions used for ranking).

No Declared plant species pursuant to the Agriculture and Related Resources Protection Act 1979 were found in the project area.

**Table 3:** Introduced Plant Species Identified in the Project Area

Taxon	Common Name	Criteria			
		Rating	Invasiveness	Distribution	Impacts
* <i>Aerva javanica</i>	Kapok bush	High	Yes	Yes	Yes
* <i>Bidens bipinnata</i>	Bipinnate Beggartick	TBA	N/A	N/A	N/A
* <i>Cenchrus ciliaris</i>	Buffel Grass	High	Yes	Yes	Yes
* <i>Cenchrus setiger</i>	Birdwood grass	High	Yes	Yes	Yes
* <i>Chloris virgata</i>	Feathertop Rhodes Grass	Low	N/A	N/A	N/A
* <i>Cucumis melo</i> subsp. <i>agrestis</i>	Ulcardo Melon	N/A	N/A	N/A	N/A
* <i>Cynodon dactylon</i>	Couch	Moderate	Yes	Yes	N/A
* <i>Malvastrum americanum</i>	Spiked Malvastrum	Moderate	Yes	Yes	N/A
* <i>Portulaca oleracea</i>	Purslane	N/A	N/A	N/A	N/A
* <i>Setaria verticillata</i>	Whorled Pigeon Grass	Low	N/A	N/A	N/A
* <i>Vachellia farnesiana</i>	Mimosa Bush	High	Yes	Yes	Yes

### 3.1.4 Vegetation Communities

There were 14 broad vegetation communities described in the project area (Table 4).

**Table 4:** Classification of Sites into Vegetation Community Types

Site	Veg Condition	Soil	Site Description
<b>AdAnTp/*Cc (<i>Acacia dictyophleba</i> shrubland)</b>			
<b>General characteristics:</b> <i>Acacia dictyophleba</i> high open shrubland over mixed <i>Acacia</i> shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.			
YA11	Poor	Red, brown very fine sandy loam	<i>Acacia dictyophleba</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> high open shrubland over <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low scattered shrubs over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.
YB07	Good	Fine red, brown sand	<i>Corymbia hamersleyana</i> low open woodland over <i>Acacia ancistrocarpa</i> and <i>Acacia pyrifolia</i> high open shrubland over <i>Acacia dictyophleba</i> and <i>Acacia bivenosa</i> open heath over <i>Petalostylis cassioides</i> low open shrubland over <i>Triodia lanigera</i> hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963) open tussock grassland over <i>Scaevola parvifolia</i> subsp. <i>pilbarae</i> and <i>Cleome viscosa</i> very open herbland.
YA65	Very Poor	Red, brown loam with some clay content	<i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Acacia dictyophleba</i> and <i>Eremophila longifolia</i> open shrubland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low open shrubland over <i>Triodia pungens</i> hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Aristida inaequiglumis</i> open tussock grassland.
YB44	Good	Fine red, brown loamy sand	<i>Acacia dictyophleba</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia pruinocarpa</i> and <i>Acacia pachyacra</i> open scrub over <i>Sclerolaena cornishiana</i> , <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20), <i>Hibiscus sturtii</i> var. <i>platychlamys</i> , <i>Tephrosia</i> aff. <i>supina</i> (MET 12,357), <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Corchorus tectus</i> low shrubland over <i>Triodia pungens</i> hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.

Site	Veg Condition	Soil	Site Description
YB52	Poor	Fine red sand	<i>Acacia dictyophleba</i> and <i>Acacia citrinoviridis</i> open scrub over <i>Acacia sericophylla</i> , <i>Rhagodia eremaea</i> , <i>Acacia ancistrocarpa</i> , <i>Solanum lasiophyllum</i> and <i>Acacia pruinocarpa</i> shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Hibiscus sturtii</i> var. <i>platychlamys</i> low open shrubland over <i>Triodia schinzii</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Aristida latifolia</i> closed tussock grassland.
<b>AaAnTp/*Cc (<i>Acacia aneura</i> open woodland)</b>			
<b>General characteristics:</b> <i>Acacia aneura</i> (mixed subspecies) low open woodland over <i>A. ancistrocarpa</i> shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.			
YA07	Poor	Red, brown clayey loam	<i>Acacia aneura</i> var. <i>aneura</i> and <i>Acacia pruinocarpa</i> low open forest over <i>Acacia ancistrocarpa</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high open shrubland over * <i>Cenchrus ciliaris</i> , <i>Enneapogon polyphyllus</i> and <i>Chrysopogon fallax</i> open tussock grassland over * <i>Malvastrum americanum</i> scattered herbs.
YA08	Good	Red, brown loam	<i>Acacia aneura</i> var. <i>intermedia</i> , <i>Atalaya hemiglauca</i> and <i>Acacia pruinocarpa</i> low open woodland over <i>Acacia ancistrocarpa</i> open shrubland over <i>Acacia synchronicia</i> low open shrubland over * <i>Cenchrus ciliaris</i> open tussock grassland over * <i>Aerva javanica</i> scattered herbs.
YA10	Poor	Red, brown loam	<i>Acacia inaequilatera</i> , <i>Acacia pruinocarpa</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259), <i>Acacia tetragonophylla</i> , <i>Hakea lorea</i> subsp. <i>lorea</i> and <i>Acacia synchronicia</i> high open shrubland over <i>Triodia basedowii</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Paspalidium constrictum</i> tussock grassland.
YA14	Poor	Red, brown loam	<i>Acacia synchronicia</i> , <i>Acacia ancistrocarpa</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high open shrubland over * <i>Cenchrus ciliaris</i> very open tussock grassland.

Site	Veg Condition	Soil	Site Description
YA16	Poor	Red, brown loam	<i>Acacia citrinoviridis</i> , <i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia synchronicia</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> open scrub over <i>Acacia pruinocarpa</i> open shrubland over * <i>Cenchrus ciliaris</i> open tussock grassland over * <i>Aerva javanica</i> and * <i>Portulaca oleracea</i> very open herbland.
YA26	Poor	Red, brown sandy loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low woodland over <i>Acacia synchronicia</i> high open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Dactyloctenium radulans</i> , <i>Dichanthium sericeum</i> subsp. <i>humilius</i> , <i>Aristida holathera</i> var. <i>holathera</i> , <i>Eulalia aurea</i> and <i>Perotis rara</i> tussock grassland.
YA27	Poor	Red, brown loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Hakea lorea</i> subsp. <i>lorea</i> closed scrub over <i>Acacia ancistrocarpa</i> and <i>Acacia tetragonophylla</i> open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> and <i>Senna artemisioides</i> subsp. <i>helmsii</i> low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland over <i>Cleome viscosa</i> scattered herbs.
YA28	Poor	Red, brown loam	<i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia citrinoviridis</i> and <i>Corymbia hamersleyana</i> low woodland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> high open shrubland over <i>Eremophila longifolia</i> and <i>Abutilon</i> aff. <i>lepidum</i> (1) (MET 15 352) open shrubland over <i>Acacia pruinocarpa</i> and <i>Acacia synchronicia</i> low shrubland over * <i>Cenchrus ciliaris</i> closed tussock grassland.
YA30	Poor	Red, brown loam	<i>Acacia aneura</i> var. <i>pilbarana</i> , <i>Acacia pruinocarpa</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia synchronicia</i> and <i>Acacia bivenosa</i> high shrubland over * <i>Cenchrus ciliaris</i> , <i>Perotis rara</i> , <i>Dactyloctenium radulans</i> and <i>Eulalia aurea</i> open tussock grassland.

Site	Veg Condition	Soil	Site Description
YA34	Poor to Good	Very fine red, brown loam with clayey depressions	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Corymbia candida</i> low woodland over <i>Acacia synchronicia</i> , <i>Acacia aneura</i> var. <i>conifera</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia pruinoarpa</i> and <i>Acacia ancistrocarpa</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> scattered shrubs over * <i>Cenchrus ciliaris</i> scattered tussock grasses.
YA40	Very Poor	Red, brown loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) scattered tall shrubs over <i>Acacia tetragonophylla</i> and <i>Corchorus tectus</i> open shrubland over * <i>Cenchrus ciliaris</i> , <i>Enneapogon polyphyllus</i> and <i>Aristida inaequiglumis</i> very open tussock grassland.
YA42	Poor to Very Poor	Red, brown loam with clay	<i>Acacia aneura</i> var. <i>aneura</i> and <i>Acacia pruinoarpa</i> high open shrubland over <i>Eremophila forrestii</i> subsp. <i>forrestii</i> scattered shrubs over <i>Enneapogon polyphyllus</i> and * <i>Cenchrus ciliaris</i> open tussock grassland over <i>Cleome viscosa</i> , <i>Abutilon macrum</i> and * <i>Bidens bipinnata</i> very open herbland.
YA43	Poor	Red, brown loam	<i>Acacia bivenosa</i> , <i>Acacia aneura</i> var. <i>intermedia</i> and <i>Acacia pruinoarpa</i> high open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> scattered shrubs over <i>Corchorus sidoides</i> low open shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Enneapogon polyphyllus</i> and <i>Digitaria ctenantha</i> open tussock grassland.
YA55	Poor	Red, brown loam with clayey depressions	<i>Eucalyptus xerothermica</i> scattered low trees over <i>Acacia ancistrocarpa</i> , <i>Acacia aneura</i> var. <i>pilbarana</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia pruinoarpa</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> open shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Aristida inaequiglumis</i> and <i>Eulalia aurea</i> open tussock grassland.
YA60	Poor	Red, brown loam with some clay content	<i>Acacia aneura</i> var. <i>aneura</i> , <i>Acacia pruinoarpa</i> high open shrubland over <i>Acacia synchronicia</i> scattered shrubs over <i>Maireana triptera</i> low scattered shrubs over <i>Triodia pungens</i> scattered hummock grasses over * <i>Cenchrus ciliaris</i> scattered tussock grasses.

Site	Veg Condition	Soil	Site Description
YA61	Poor	Red, brown loam with some clay content	<i>Acacia aneura</i> var. <i>pilbarana</i> low open woodland over <i>Acacia pruinocarpa</i> , <i>Acacia synchronicia</i> and <i>Acacia xiphophylla</i> high open shrubland over <i>Acacia aneura</i> var. <i>intermedia</i> and <i>Acacia ancistrocarpa</i> open shrubland over <i>Eremophila forrestii</i> subsp. <i>forrestii</i> low scattered shrubs over <i>Triodia pungens</i> and <i>Triodia schinzii</i> open hummock grassland.
YA63	Poor	Red, brown fine silt	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low woodland over <i>Eremophila longifolia</i> , <i>Acacia synchronicia</i> , <i>Acacia tetragonophylla</i> and <i>Acacia xiphophylla</i> high shrubland over <i>Maireana triptera</i> , <i>Scaevola spinescens</i> and <i>Rhagodia eremaea</i> open shrubland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA64	Poor	Red, brown loam with cracking clay	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia pruinocarpa</i> low open woodland over <i>Acacia synchronicia</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> open scrub over <i>Maireana triptera</i> , <i>Sclerolaena cornishiana</i> , <i>Ptilotus obovatus</i> var. <i>obovatus</i> and <i>Eremophila forrestii</i> subsp. <i>forrestii</i> low open shrubland over <i>Triodia longiceps</i> , <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA70	Poor	Red, brown loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Corymbia candida</i> low woodland over <i>Acacia pruinocarpa</i> and <i>Acacia synchronicia</i> high open shrubland over <i>Eremophila latrobei</i> subsp. <i>filiformis</i> scattered shrubs.
YB08	Poor	Fine red, brown sand	<i>Acacia bivenosa</i> open shrubland over <i>Acacia aneura</i> var. <i>aneura</i> , <i>Acacia victoriae</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Solanum lasiophyllum</i> low open shrubland over <i>Triodia pungens</i> scattered hummock grasses over * <i>Cenchrus ciliaris</i> , <i>Enneapogon polyphyllus</i> and <i>Dactyloctenium radulans</i> tussock grassland over <i>Cleome viscosa</i> and <i>Boerhavia coccinea</i> very open herbland.



Site	Veg Condition	Soil	Site Description
YB09	Good	Fine red, brown sand with lateritic gravel	<i>Senna glutinosa</i> subsp. <i>luerssenii</i> , <i>Eremophila cuneifolia</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia aneura</i> var. <i>pilbarana</i> , <i>Grevillea striata</i> and <i>Solanum lasiophyllum</i> shrubland over <i>Triodia longiceps</i> closed hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Enneapogon polyphyllus</i> and <i>Dactyloctenium radulans</i> very open tussock grassland.
YB55	Very Poor	Red, brown sand	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> open shrubland over <i>Eremophila lanceolata</i> , <i>Acacia aneura</i> var. <i>conifera</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Maireana villosa</i> low open shrubland over <i>Dactyloctenium radulans</i> very open tussock grassland over <i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i> , <i>Ipomoea muelleri</i> , <i>Tribulus cistoides</i> and * <i>Portulaca oleracea</i> very open herbland.
YAR06	Very Poor to Completely Degraded	Red, brown alluvial loam	* <i>Cenchrus ciliaris</i> closed tussock grassland (relevé conducted in drainage culvert between rail line and remnant vegetation strip).
<b>AaAsCf/*Cc (<i>Acacia aneura</i> shrubland)</b> <b>General characteristics:</b> <i>Acacia aneura</i> (mixed subspecies), <i>Acacia ancistrocarpa</i> , <i>Acacia pruinocarpa</i> and <i>Acacia synchronicia</i> shrubland over <i>Triodia pungens</i> very open hummock grassland over <i>Chrysopogon fallax</i> and * <i>Cenchrus ciliaris</i> tussock grassland.			
YA13	Poor	Red, brown loam with some clay content	<i>Acacia aneura</i> var. <i>aneura</i> low open woodland over <i>Acacia synchronicia</i> and <i>Acacia aneura</i> var. <i>aneura</i> high shrubland over <i>Sida platycalyx</i> , <i>Corchorus sidoides</i> and <i>Senna notabilis</i> low open shrubland over * <i>Cenchrus ciliaris</i> , <i>Aristida contorta</i> , <i>Chrysopogon fallax</i> , <i>Dactyloctenium radulans</i> and <i>Perotis rara</i> open tussock grassland over <i>Sclerolaena cornishiana</i> and * <i>Portulaca oleracea</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YA31	Poor	Red, brown loam with some clay content	<i>Acacia bivenosa</i> , <i>Acacia aneura</i> var. <i>intermedia</i> and <i>Acacia pruinocarpa</i> high open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> scattered shrubs over <i>Corchorus sideoides</i> low open shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Enneapogon polyphyllus</i> and <i>Digitaria ctenantha</i> open tussock grassland.
YA39	Poor	Red, brown loam	<i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia pruinocarpa</i> and <i>Acacia synchronicia</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> scattered shrubs over * <i>Cenchrus ciliaris</i> and <i>Eulalia aurea</i> closed tussock grassland.
YA41	Poor to Good	Red, brown loam	<i>Acacia aneura</i> var. <i>pilbarana</i> , <i>Acacia xiphophylla</i> and <i>Acacia pruinocarpa</i> low open forest over <i>Acacia synchronicia</i> , <i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous), <i>Acacia ancistrocarpa</i> and <i>Acacia bivenosa</i> high shrubland over <i>Rhagodia eremaea</i> and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> open shrubland over * <i>Cenchrus ciliaris</i> , <i>Digitaria ctenantha</i> , <i>Eragrostis eriopoda</i> , <i>Eragrostis xerophila</i> , <i>Sporobolus australasicus</i> , <i>Chloris pectinata</i> , <i>Enneapogon polyphyllus</i> , <i>Eulalia aurea</i> and <i>Dactyloctenium radulans</i> tussock grassland over * <i>Malvastrum americanum</i> and * <i>Aerva javanica</i> very open herbland.
YA62	Good to Poor	Red, brown clayey loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia aneura</i> var. <i>intermedia</i> low woodland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia synchronicia</i> high shrubland over <i>Eremophila cuneifolia</i> and <i>Rhagodia eremaea</i> open shrubland over <i>Maireana triptera</i> low open shrubland over * <i>Cenchrus ciliaris</i> scattered tussock grasses.
YA69	Good	Red, brown loam with some clay present	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high shrubland over <i>Acacia synchronicia</i> low open shrubland over <i>Triodia longiceps</i> open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.

Site	Veg Condition	Soil	Site Description
YB20	Good	Fine red, brown loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low open forest over <i>Acacia synchronicia</i> high open shrubland over <i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous) shrubland over <i>Sclerolaena cornishiana</i> , <i>Rhagodia eremaea</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Ptilotus astrolasius</i> var. <i>astrolasius</i> low shrubland over <i>Chloris pectinata</i> , <i>Dactyloctenium radulans</i> and <i>Chrysopogon fallax</i> tussock grassland over <i>*Malvastrum americanum</i> , <i>Cleome viscosa</i> , <i>Goodenia prostrata</i> , <i>Gomphrena kanisii</i> and <i>Stenopetalum nutans</i> open herbland.
YB21	Good	Fine brown sandy loam	<i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia aneura</i> var. <i>conifera</i> , <i>Acacia tetragonophylla</i> , <i>Rhagodia eremaea</i> , <i>Acacia synchronicia</i> and <i>Acacia ancistrocarpa</i> closed shrub over <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259), <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> shrubland over <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) and <i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i> low shrubland over <i>Chrysopogon fallax</i> , <i>Enneapogon polyphyllus</i> , <i>Dactyloctenium radulans</i> , <i>*Cenchrus ciliaris</i> and <i>Chloris pectinata</i> tussock grassland over <i>Gomphrena kanisii</i> very open herbland.
YB22	Very Good	Fine red, brown sand	<i>Acacia synchronicia</i> and <i>Acacia aneura</i> var. <i>aneura</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Eremophila lanceolata</i> , <i>Acacia tetragonophylla</i> and <i>Ptilotus astrolasius</i> var. <i>astrolasius</i> low shrubland over <i>Chrysopogon fallax</i> , <i>Aristida holathera</i> var. <i>latifolia</i> , <i>Tragus australianus</i> and <i>Eragrostis xerophila</i> tussock grassland over <i>Gomphrena kanisii</i> and <i>Goodenia prostrata</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YB24	Poor	Red, brown loam	<i>Acacia synchronicia</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> open scrub over <i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous) and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Solanum lasiophyllum</i> low open shrubland over * <i>Cenchrus ciliaris</i> , <i>Tragus australianus</i> , <i>Chrysopogon fallax</i> and <i>Dactyloctenium radulans</i> closed tussock grassland over <i>Ipomoea muelleri</i> , <i>Ptilotus exaltatus</i> var. <i>exaltatus</i> , <i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i> , <i>Boerhavia coccinea</i> and * <i>Portulaca oleracea</i> very open herbland.
YB25	Poor	Dark red, brown loamy sand	<i>Acacia synchronicia</i> , <i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia tetragonophylla</i> open scrub over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> shrubland over <i>Tephrosia rosea</i> var. <i>glabrior</i> , and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low shrubland over <i>Chrysopogon fallax</i> , <i>Aristida contorta</i> , * <i>Cenchrus ciliaris</i> and <i>Dactyloctenium radulans</i> closed tussock grassland over <i>Ptilotus helipteroides</i> var. <i>helipteroides</i> , <i>Goodenia prostrata</i> , <i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i> , <i>Gomphrena kanisii</i> and <i>Ipomoea muelleri</i> very open herbland.
YB32	Good	Red, brown sandy loam	<i>Acacia aneura</i> var. <i>intermedia</i> low open woodland over <i>Acacia pruinocarpa</i> high open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia tetragonophylla</i> , <i>Rhagodia eremaea</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> open heath over <i>Sclerolaena cornishiana</i> and <i>Senna notabilis</i> low shrubland over * <i>Cenchrus ciliaris</i> , <i>Chrysopogon fallax</i> and <i>Dactyloctenium radulans</i> very open tussock grassland over <i>Boerhavia coccinea</i> and <i>Gomphrena kanisii</i> very open herbland.
YB36	Good	Red, brown sandy loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low open woodland over <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Acacia pruinocarpa</i> , <i>Cullen lachnostachys</i> and <i>Acacia synchronicia</i> shrubland over <i>Gossypium australe</i> (Burrup Peninsula form), <i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i> and <i>Ptilotus obovatus</i> var. <i>obovatus</i> low open heath over <i>Chrysopogon fallax</i> , <i>Chloris pectinata</i> , <i>Iseilema eremaeum</i> , <i>Dactyloctenium radulans</i> , * <i>Cenchrus ciliaris</i> and <i>Eragrostis tenellula</i> closed tussock grassland over <i>Ipomoea muelleri</i> , <i>Goodenia microptera</i> , <i>Boerhavia coccinea</i> and <i>Heliotropium paniculatum</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YB37	Poor	Red, brown sand	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high open shrubland over <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Acacia aneura</i> var. <i>aneura</i> and <i>Acacia tetragonophylla</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Maireana villosa</i> low shrubland over <i>Chrysopogon fallax</i> , * <i>Cenchrus ciliaris</i> and <i>Aristida contorta</i> tussock grassland over <i>Pterocaulon sphaeranthoides</i> very open herbland.
YB42	Good	Fine red, brown sand	<i>Corymbia deserticola</i> subsp. <i>deserticola</i> low open woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia paraneura</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia aneura</i> var. <i>intermedia</i> open scrub over <i>Dodonaea petiolaris</i> open shrubland over <i>Sclerolaena cornishiana</i> , <i>Maireana villosa</i> , <i>Ptilotus obovatus</i> var. <i>obovatus</i> , <i>Acacia tetragonophylla</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Hibiscus sturtii</i> var. <i>platyklamys</i> and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> low open heath over <i>Chrysopogon fallax</i> , <i>Aristida contorta</i> and <i>Enneapogon polyphyllus</i> tussock grassland over <i>Ipomoea muelleri</i> very open herbland.
YB43	Good	Red, brown sandy loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia pruinocarpa</i> and <i>Psyrax latifolia</i> high shrubland over <i>Acacia citrinoviridis</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> , over <i>Acacia aneura</i> var. <i>conifera</i> , <i>Acacia tetragonophylla</i> and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> open heath over <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) and <i>Sclerolaena cornishiana</i> low shrubland over <i>Chrysopogon fallax</i> and * <i>Cenchrus ciliaris</i> very open tussock grassland over <i>Bonamia rosea</i> very open herbland.
YB46	Good	Fine red, brown sand	<i>Acacia ancistrocarpa</i> , <i>Acacia pruinocarpa</i> , <i>Acacia pachyacra</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) open scrub over <i>Acacia dictyophleba</i> and <i>Senna glutinosa</i> subsp. <i>luerssenii</i> x <i>stricta</i> open shrubland over <i>Dodonaea petiolaris</i> , <i>Ptilotus obovatus</i> var. <i>obovatus</i> , <i>Maireana villosa</i> and <i>Hibiscus burtonii</i> low open heath over <i>Triodia pungens</i> very open hummock grassland over <i>Chrysopogon fallax</i> and <i>Paraneurachne muelleri</i> open tussock grassland.

Site	Veg Condition	Soil	Site Description
YB47	Poor	Fine red, brown sand	<i>Acacia ancistrocarpa</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259), <i>Acacia tetragonophylla</i> , <i>Acacia stowardii</i> (linear form) and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> open scrub over <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Ptilotus obovatus</i> var. <i>obovatus</i> open shrubland over <i>Maireana villosa</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Sclerolaena cornishiana</i> , <i>Senna notabilis</i> and <i>Acacia aneura</i> var. <i>aneura</i> low shrubland over <i>Chrysopogon fallax</i> , <i>Dactyloctenium radulans</i> , <i>Enneapogon polyphyllus</i> , <i>Aristida contorta</i> and <i>Enneapogon robustissimus</i> very open tussock grassland over <i>Boerhavia coccinea</i> scattered herbs.
YB48	Poor	Fine red, brown sand	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia aneura</i> var. <i>intermedia</i> high open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Acacia tetragonophylla</i> and <i>Acacia synchronicia</i> shrubland over <i>Sclerolaena cornishiana</i> , <i>Sida</i> aff. <i>fibulifera</i> (HD200-6), <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20), <i>Tephrosia</i> aff. <i>supina</i> (MET 12,357) and <i>Ptilotus astrolasius</i> var. <i>astrolasius</i> low shrubland over <i>Eragrostis xerophila</i> , <i>Tragus australianus</i> , <i>Enneapogon polyphyllus</i> and <i>*Cenchrus ciliaris</i> open tussock grassland over <i>Portulaca oleracea</i> , <i>Tribulus cistoides</i> and <i>Tribulus astrocarpus</i> very open herbland.
YB49	Good to Poor	Dark red, brown sandy loam	<i>Acacia synchronicia</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259), <i>Acacia tetragonophylla</i> and <i>Acacia pruinocarpa</i> open scrub over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Psyrax latifolia</i> open shrubland over <i>Sclerolaena cornishiana</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low open shrubland over <i>*Cenchrus ciliaris</i> and <i>Dactyloctenium radulans</i> very open tussock grassland over <i>Boerhavia coccinea</i> and <i>Cleome viscosa</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YB50	Good to Poor	Dark red, brown sand	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> low open woodland over <i>Acacia aneura</i> , <i>Acacia tetragonophylla</i> and <i>Acacia synchronicia</i> open scrub over <i>Acacia pruinocarpa</i> , <i>Rhagodia eremaea</i> and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> shrubland over <i>Sclerolaena cornishiana</i> and <i>Maireana villosa</i> low open shrubland over <i>Chloris pectinata</i> , <i>Aristida latifolia</i> , <i>Dactyloctenium radulans</i> and * <i>Cenchrus ciliaris</i> very open tussock grassland over <i>Abutilon macrum</i> , * <i>Malvastrum americanum</i> , <i>Cleome viscosa</i> and <i>Ipomoea muelleri</i> very open herbland.
YB51	Good	Red, brown sandy loam	<i>Acacia ancistrocarpa</i> , <i>Acacia citrinoviridis</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia coriacea</i> subsp. <i>pendens</i> open scrub over <i>Acacia dictyophleba</i> , <i>Acacia tetragonophylla</i> , <i>Acacia pruinocarpa</i> and <i>Acacia sericophylla</i> open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Sclerolaena cornishiana</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low open heath over * <i>Cenchrus ciliaris</i> , <i>Aristida latifolia</i> , <i>Eriachne aristidea</i> and <i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963) tussock grassland over <i>Waltheria indica</i> and <i>Euphorbia australis</i> (mid-green form) very open herbland.
YB53	Good	Red, brown sand	<i>Acacia ancistrocarpa</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259), <i>Acacia pruinocarpa</i> and <i>Acacia tetragonophylla</i> open scrub over <i>Maireana villosa</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Sclerolaena cornishiana</i> , <i>Solanum lasiophyllum</i> , <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20), <i>Dodonaea petiolaris</i> , <i>Eremophila lanceolata</i> , <i>Acacia aneura</i> var. <i>aneura</i> , <i>Sida platycalyx</i> and <i>Senna artemisioides</i> subsp. <i>helmsii</i> low open heath over <i>Aristida latifolia</i> , * <i>Cenchrus ciliaris</i> , <i>Aristida inaequiglumis</i> and <i>Eulalia aurea</i> tussock grassland.
YB56	Very Poor	Red, brown loam	<i>Acacia aneura</i> var. <i>conifera</i> and <i>Acacia tetragonophylla</i> open scrub over <i>Acacia synchronicia</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Acacia ancistrocarpa</i> , <i>Rhagodia eremaea</i> , <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) and <i>Solanum lasiophyllum</i> low open heath over * <i>Cenchrus ciliaris</i> open tussock grassland over <i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i> and * <i>Aerva javanica</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YB58	Poor	Red, brown loam	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Rhagodia eremaea</i> open scrub over <i>Acacia synchronicia</i> shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Sclerolaena cornishiana</i> , <i>Eremophila lanceolata</i> and <i>Solanum sturtianum</i> low shrubland over <i>Enneapogon polyphyllus</i> , <i>Dactyloctenium radulans</i> and <i>Iseilema eremaeum</i> very open tussock grassland over <i>Cleome viscosa</i> , <i>Ipomoea muelleri</i> and <i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i> very open herbland.
<b>EgApTp*Cc (<i>Eucalyptus gamophylla</i> low open mallee woodland)</b>			
<b>General characteristics:</b> <i>Eucalyptus xerothermica</i> low open woodland over <i>Eucalyptus gamophylla</i> low open mallee woodland over mixed <i>Acacia</i> shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.			
YA44	Good	Red, brown loam	<i>Eucalyptus gamophylla</i> low open mallee woodland over <i>Acacia inaequilatera</i> open shrubland over <i>Triodia pungens</i> hummock grassland over <i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963) very open tussock grassland.
YA45	Poor to Good	Red, brown loam	<i>Eucalyptus xerothermica</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low open woodland over <i>Eucalyptus gamophylla</i> scattered low mallee trees over <i>Acacia pruinocarpa</i> scattered tall shrubs over <i>Acacia bivenosa</i> , <i>Acacia synchronicia</i> , <i>Indigofera monophylla</i> (brown calyx form), <i>Scaevola parvifolia</i> subsp. <i>pilbarae</i> and <i>Corchorus tectus</i> low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA46	Poor to Good	Red, brown loam	<i>Eucalyptus xerothermica</i> scattered low trees over <i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Acacia bivenosa</i> and <i>Acacia pruinocarpa</i> high open shrubland over <i>Acacia synchronicia</i> scattered shrubs over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.



Site	Veg Condition	Soil	Site Description
YA47	Poor to Good	Red, brown loam	<i>Eucalyptus xerothermica</i> low open woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia bivenosa</i> , <i>Acacia synchronicia</i> and <i>Acacia inaequilatera</i> shrubland over <i>Indigofera monophylla</i> (brown calyx form) and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> low open shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA50	Good to Poor	Red, brown very fine loam/silt	<i>Eucalyptus xerothermica</i> and <i>Acacia pruinocarpa</i> low open woodland over <i>Acacia synchronicia</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> scattered shrubs over <i>Triodia pungens</i> scattered hummock grasses over * <i>Cenchrus ciliaris</i> open tussock grassland.
YA52	Poor	Red, brown loam with some clay content.	<i>Eucalyptus xerothermica</i> scattered low trees over <i>Acacia synchronicia</i> high open shrubland over <i>Ptilotus obovatus</i> var. <i>obovatus</i> and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> open tussock grassland.
YA53	Poor	Red, brown loam	<i>Eucalyptus gamophylla</i> low open mallee woodland over <i>Petalostylis cassioides</i> and <i>Senna notabilis</i> low open shrubland over <i>Triodia pungens</i> scattered hummock grasses over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA58	Good	Red, brown gravely loam	<i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia inaequilatera</i> and <i>Acacia dictyophleba</i> high open shrubland over <i>Triodia basedowii</i> open hummock grassland over <i>Cymbopogon obtectus</i> and * <i>Cenchrus ciliaris</i> very open tussock grassland.

Site	Veg Condition	Soil	Site Description
YA59	Poor	Red, brown loam	<i>Eucalyptus xerothermica</i> scattered low trees over <i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Acacia synchronicia</i> scattered tall shrubs over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia aneura</i> var. <i>conifera</i> and <i>Acacia synchronicia</i> shrubland over <i>Triodia basedowii</i> and <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Aristida inaequiglumis</i> and <i>Paraneurachne muelleri</i> very open tussock grassland.
YA66	Good	Red, brown loam	<i>Eucalyptus xerothermica</i> low open woodland over <i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> high shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA67	Poor	Red, brown loam	<i>Eucalyptus trivalvis</i> and <i>Eucalyptus gamophylla</i> low open mallee woodland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> shrubland over <i>Triodia longiceps</i> open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA68	Good to Poor	Red, brown loamy sand	<i>Eucalyptus socialis</i> subsp. <i>eucentrica</i> and <i>Eucalyptus gamophylla</i> low mallee woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Keraudrenia velutina</i> subsp. <i>elliptica</i> low open shrubland over <i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835) and <i>Triodia longiceps</i> open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YAR03	Good	Red, brown sandy loam	<i>Eucalyptus gamophylla</i> open mallee woodland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia dictyophleba</i> high open shrubland over <i>Petalostylis labicheoides</i> open shrubland over <i>Triodia pungens</i> and <i>Triodia basedowii</i> hummock grassland.
<p><b>ChAp*Cc (<i>Corymbia hamersleyana</i> woodland - plains)</b></p> <p><b>General characteristics:</b> <i>Corymbia hamersleyana</i>, <i>Corymbia semiclara</i> and <i>Corymbia</i> aff. <i>opaca</i> scattered low trees over mixed <i>Acacia</i> shrubland over <i>Triodia basedowii</i> and <i>Triodia pungens</i> very open hummock grassland over *<i>Cenchrus ciliaris</i> tussock grassland.</p>			

Site	Veg Condition	Soil	Site Description
YA01	Poor	Fine red, brown loam	<i>Corymbia semiclara</i> scattered low trees over <i>Acacia inaequilatera</i> and <i>Acacia ancistrocarpa</i> open shrubland over <i>Scaevola parvifolia</i> subsp. <i>pilbarae</i> low scattered shrubs over <i>Triodia basedowii</i> very open hummock grassland over <i>Aristida holathera</i> var. <i>holathera</i> , <i>Aristida inaequiglumis</i> , <i>Eulalia aurea</i> and <i>Paraneurachne muelleri</i> open tussock grassland over <i>Bonamia rosea</i> scattered herbs.
YA02	Poor	Red, brown sandy loam	<i>Corymbia</i> aff. <i>opaca</i> and <i>Corymbia hamersleyana</i> scattered low trees over <i>Eucalyptus gamophylla</i> low open mallee woodland over <i>Acacia inaequilatera</i> open shrubland over <i>Corchorus tectus</i> low open shrubland over <i>Triodia basedowii</i> very open hummock grassland over <i>Aristida holathera</i> var. <i>holathera</i> , <i>*Cenchrus ciliaris</i> and <i>Aristida inaequiglumis</i> open tussock grassland over <i>Trianthema pilosa</i> and <i>Cleome viscosa</i> very open herbland.
YA03	Poor	Red, brown loam	<i>Corymbia hamersleyana</i> scattered low trees over <i>Hakea lorea</i> subsp. <i>lorea</i> high open shrubland over <i>*Cenchrus ciliaris</i> tussock grassland.
YA04	Poor to Very Poor	Red, brown loam with some clay	<i>Corymbia hamersleyana</i> scattered trees over <i>Acacia aneura</i> var. <i>aneura</i> , <i>Acacia pruinocarpa</i> low woodland over <i>Acacia synchronicia</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Hakea lorea</i> subsp. <i>lorea</i> and <i>Acacia inaequilatera</i> high shrubland over <i>Triodia basedowii</i> very open hummock grassland over <i>*Cenchrus ciliaris</i> closed tussock grassland.
YA05	Good to Poor	Red, brown loam with clay	<i>Corymbia hamersleyana</i> , <i>Acacia pruinocarpa</i> and <i>Acacia aneura</i> var. <i>intermedia</i> low open woodland over <i>Acacia synchronicia</i> and <i>*Vachellia farnesiana</i> high open shrubland over <i>Acacia aneura</i> var. <i>aneura</i> scattered shrubs over <i>*Cenchrus ciliaris</i> open tussock grassland.
YA06	Poor	Red, brown sandy loam	<i>Corymbia semiclara</i> scattered low trees over <i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Senna notabilis</i> low open shrubland over <i>Aristida inaequiglumis</i> , <i>Eulalia aurea</i> , <i>*Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> tussock grassland.

Site	Veg Condition	Soil	Site Description
YA15	Very Poor	Red, brown sandy loam with little clay	<i>Corymbia</i> aff. <i>opaca</i> low scattered trees over <i>Acacia synchronicia</i> , <i>Acacia pruinocarpa</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> high shrubland over <i>Corchorus sidoides</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low open shrubland over * <i>Cenchrus ciliaris</i> and <i>Enneapogon polyphyllus</i> open tussock grassland over * <i>Aerva javanica</i> scattered herbs.
YA19	Very Poor	Red, brown loam with some clay	<i>Acacia ancistrocarpa</i> and <i>Acacia synchronicia</i> high shrubland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> open shrubland over * <i>Cenchrus ciliaris</i> closed tussock grassland over * <i>Aerva javanica</i> scattered herbs.
YA22	Poor	Red, brown loam with high clay	<i>Corymbia hamersleyana</i> scattered low trees over <i>Acacia pruinocarpa</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> shrubland over * <i>Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> tussock grassland.
YA24	Poor to Good	Red, brown sandy loam with some clay	<i>Corymbia hamersleyana</i> , <i>Acacia pruinocarpa</i> low open woodland over <i>Acacia dictyophleba</i> , <i>Acacia bivenosa</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Hakea lorea</i> subsp. <i>lorea</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> low scattered shrubs over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland over * <i>Aerva javanica</i> scattered herbs.
YA57	Poor	Red, brown loam with clayey depressions	<i>Corymbia hamersleyana</i> scattered low trees over <i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia inaequilatera</i> and <i>Acacia synchronicia</i> open heath over <i>Triodia basedowii</i> and <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Paraneurachne muelleri</i> very open tussock grassland.

Site	Veg Condition	Soil	Site Description
YB01	Good	Rocky dark red, brown sand	<i>Corymbia hamersleyana</i> low open woodland over <i>Acacia citrinoviridis</i> high open shrubland over <i>Acacia bivenosa</i> , <i>Acacia aneura</i> var. <i>aneura</i> , <i>Acacia synchronicia</i> , <i>Senna glutinosa</i> subsp. <i>pruinosa</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> open heath over <i>Triodia pungens</i> hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Cymbopogon obtectus</i> , <i>Paraneurachne muelleri</i> , <i>Aristida contorta</i> , <i>Aristida ingrata</i> and <i>Enneapogon caerulescens</i> var. <i>caerulescens</i> tussock grassland over <i>Phyllanthus maderaspatensis</i> and <i>Cleome viscosa</i> very open herbland.
YB11	Very Poor	Rocky red, brown sand	<i>Corymbia semiclara</i> scattered low trees over <i>Acacia pyrifolia</i> , <i>Acacia inaequilatera</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> high shrubland over <i>Acacia citrinoviridis</i> , <i>Acacia marramamba</i> and <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> low shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963) closed tussock grassland over <i>Gomphrena cunninghamii</i> very open herbland.
YB12	Poor	Red, brown loamy sand	<i>Corymbia candida</i> low woodland over <i>Acacia citrinoviridis</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia ancistrocarpa</i> and <i>Acacia dictyophleba</i> open scrub over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Bothriochloa bladhii</i> and <i>Aristida holathera</i> var. <i>latifolia</i> closed tussock grassland.
YB30	Good	Red, brown sandy loam	<i>Corymbia semiclara</i> low woodland over <i>Acacia pruinocarpa</i> , <i>Acacia ancistrocarpa</i> , <i>Eremophila longifolia</i> and <i>Acacia bivenosa</i> open scrub over <i>Rhagodia eremaea</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Acacia aneura</i> var. <i>aneura</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> open heath over <i>Acacia tetragonophylla</i> , <i>Ptilotus astrolasius</i> var. <i>astrolasius</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low open shrubland over * <i>Cenchrus ciliaris</i> open tussock grassland over <i>Boerhavia coccinea</i> scattered herbs.

Site	Veg Condition	Soil	Site Description
YB31	Poor	Red, brown sand	<i>Corymbia hamersleyana</i> and <i>Corymbia deserticola</i> subsp. <i>deserticola</i> low open woodland over <i>Acacia pruinocarpa</i> and <i>Grevillea wickhamii</i> subsp. <i>hispidula</i> high open shrubland over <i>Acacia tetragonophylla</i> , <i>Hakea lorea</i> subsp. <i>lorea</i> open shrubland over <i>Maireana villosa</i> , <i>Sclerolaena cornishiana</i> , <i>Acacia aneura</i> var. <i>aneura</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Rhagodia eremaea</i> low open heath over <i>Chrysopogon fallax</i> , <i>Dactyloctenium radulans</i> and <i>Eulalia aurea</i> tussock grassland over <i>Cleome viscosa</i> very open herbland.
YB39	Good	Red, brown sandy loam	<i>Corymbia hamersleyana</i> low open woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259), <i>Hakea lorea</i> subsp. <i>lorea</i> , <i>Acacia pruinocarpa</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Senna glutinosa</i> subsp. <i>pruinosa</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Acacia tetragonophylla</i> open heath over <i>Maireana villosa</i> , <i>Solanum lasiophyllum</i> , <i>Eremophila lanceolata</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low shrubland over <i>Chrysopogon fallax</i> , <i>Eriachne aristidea</i> , <i>Eulalia aurea</i> and * <i>Cenchrus ciliaris</i> tussock grassland over <i>Sclerolaena cornishiana</i> and <i>Salsola tragus</i> subsp. <i>tragus</i> very open herbland.
YB40	Very Poor	Fine red, brown sand	<i>Corymbia</i> aff. <i>opaca</i> scattered low trees over <i>Acacia aneura</i> var. <i>conifera</i> and <i>Acacia synchronicia</i> high open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Maireana villosa</i> , <i>Acacia aneura</i> var. <i>aneura</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> low shrubland over <i>Dactyloctenium radulans</i> , <i>Aristida contorta</i> and * <i>Cenchrus ciliaris</i> very open tussock grassland over <i>Sclerolaena cornishiana</i> , <i>Tribulus cistoides</i> , <i>Boerhavia coccinea</i> and <i>Ipomoea muelleri</i> very open herbland.
<p><b>ApAsCf/*Cc (<i>Acacia pruinocarpa</i> low woodland)</b></p> <p><b>General characteristics:</b> <i>Acacia pruinocarpa</i> low woodland over mixed <i>Acacia</i> shrubland over <i>Chrysopogon fallax</i> and *<i>Cenchrus ciliaris</i> tussock grassland.</p>			

Site	Veg Condition	Soil	Site Description
YA12	Poor	Red, brown loam	<i>Acacia pruinoarpa</i> , <i>Hakea lorea</i> subsp. <i>lorea</i> low open woodland over <i>Acacia aneura</i> var. <i>pilbarana</i> high shrubland over <i>Corchorus tectus</i> low scattered shrubs over * <i>Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> open tussock grassland over <i>Sclerolaena cornishiana</i> and * <i>Aerva javanica</i> very open herbland.
YA17	Poor to Very Poor	Red, brown loamy clay	<i>Acacia pruinoarpa</i> low woodland over <i>Acacia inaequilatera</i> and <i>Acacia synchronicia</i> high open shrubland over * <i>Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> tussock grassland.
YA20	Very Poor	Red, brown sandy loam with clay	<i>Acacia inaequilatera</i> and <i>Cullen leucanthum</i> open shrubland over * <i>Cenchrus ciliaris</i> tussock grassland over <i>Cleome viscosa</i> and * <i>Aerva javanica</i> very open herbland.
YA21	Poor	Red, brown loam with clay	<i>Eucalyptus xerothermica</i> and <i>Acacia pruinoarpa</i> low open woodland over <i>Acacia synchronicia</i> and <i>Acacia inaequilatera</i> shrubland over * <i>Cenchrus ciliaris</i> tussock grassland over * <i>Aerva javanica</i> scattered herbs.
YA25	Poor	Red, brown loam with clay	<i>Acacia paraneura</i> low scattered trees over <i>Acacia pruinoarpa</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high open shrubland over <i>Acacia ancistrocarpa</i> , <i>Acacia synchronicia</i> and <i>Acacia dictyophleba</i> open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> low open shrubland over * <i>Cenchrus ciliaris</i> , <i>Eulalia aurea</i> and <i>Chrysopogon fallax</i> closed tussock grassland.
YA51	Poor	Red, brown loam with clayey depressions	<i>Acacia pruinoarpa</i> low woodland over <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259), <i>Acacia synchronicia</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Atalaya hemiglauca</i> high open shrubland over * <i>Cenchrus ciliaris</i> tussock grassland over <i>Abutilon</i> aff. <i>lepidum</i> (1) (MET 15 352) scattered herbs.

Site	Veg Condition	Soil	Site Description
YB33	Good	Red, brown sand loam	<i>Acacia pruinocarpa</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia citrinoviridis</i> , <i>Acacia pachyacra</i> , <i>Rhagodia eremaea</i> , <i>Acacia paraneura</i> and <i>Acacia adsurgens</i> open scrub over <i>Acacia synchronicia</i> open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Hakea lorea</i> subsp. <i>lorea</i> , <i>Maireana villosa</i> and <i>Sclerolaena cornishiana</i> low open heath over <i>Triodia pungens</i> very open hummock grassland over <i>Chrysopogon fallax</i> , <i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963), <i>*Cenchrus ciliaris</i> and <i>Iseilema eremaeum</i> tussock grassland.
YB45	Good	Red, brown sand	<i>Acacia pachyacra</i> and <i>Acacia pruinocarpa</i> open scrub over <i>Acacia ancistrocarpa</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Acacia adsurgens</i> open heath over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Sida cardiophylla</i> , <i>Hibiscus sturtii</i> var. <i>platyklamys</i> , <i>Sclerolaena cornishiana</i> , <i>Maireana villosa</i> and <i>Corchorus tectus</i> low shrubland over <i>Triodia lanigera</i> hummock grassland over <i>Chrysopogon fallax</i> , <i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963) and <i>Paraneurachne muelleri</i> tussock grassland over <i>Bonamia rosea</i> very open herbland.
YB54	Poor	Red, brown sandy loam	<i>Acacia pruinocarpa</i> low open woodland over <i>Acacia sericophylla</i> high open shrubland over <i>Solanum</i> aff. <i>sturtianum</i> , <i>Senna glutinosa</i> subsp. <i>glutinosa</i> , <i>Dodonaea coriacea</i> and <i>Acacia tetragonophylla</i> shrubland over <i>Acacia ancistrocarpa</i> , <i>Dodonaea petiolaris</i> , <i>Solanum lasiophyllum</i> , <i>Sida cardiophylla</i> and <i>Corchorus sidoides</i> low shrubland over <i>Triodia lanigera</i> open hummock grassland over <i>Aristida inaequiglumis</i> and <i>*Cenchrus ciliaris</i> tussock grassland over <i>Bonamia rosea</i> scattered herbs.
<p><b>ExAa*Cc (<i>Eucalyptus xerothermica</i> low open woodland - riparian)</b></p> <p><b>General characteristics:</b> <i>Eucalyptus xerothermica</i> low open woodland over mixed <i>Acacia citrinoviridis</i> and other <i>Acacia</i> species shrubland over <i>Triodia pungens</i> open hummock grassland over <i>*Cenchrus ciliaris</i> open tussock grassland.</p>			



Site	Veg Condition	Soil	Site Description
YA48	Good to Poor	Red, brown loam with some clay content	<i>Eucalyptus xerothermica</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low open woodland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia ancistrocarpa</i> and <i>Acacia synchronicia</i> shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Aristida inaequiglumis</i> open tussock grassland.
YB59	Poor	Dark red, brown sandy loam	<i>Eucalyptus xerothermica</i> low woodland over <i>Acacia citrinoviridis</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia synchronicia</i> , <i>Acacia tetragonophylla</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia pruinocarpa</i> open scrub over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> open shrubland over <i>Maireana villosa</i> low open shrubland over * <i>Cenchrus ciliaris</i> , <i>Eragrostis tenellula</i> , <i>Iseilema eremaum</i> and <i>Dactyloctenium radulans</i> open tussock grassland over <i>Cleome viscosa</i> , * <i>Malvastrum americanum</i> and <i>Streptoglossa bubakii</i> very open herbland.
YAR09	Poor	Cracked red, brown clayey loam	<i>Eucalyptus xerothermica</i> and <i>Acacia aneura</i> var. <i>pilbarana</i> low open woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia tumida</i> var. <i>pilbarensis</i> shrubland over * <i>Cenchrus ciliaris</i> and <i>Eulalia aurea</i> tussock grassland over <i>Cleome viscosa</i> scattered grasses.
YAR10	Poor	Red, brown clayey loam	<i>Eucalyptus xerothermica</i> , <i>Acacia aneura</i> var. <i>aneura</i> and <i>Acacia citrinoviridis</i> low woodland over * <i>Vachellia farnesiana</i> and <i>Acacia ancistrocarpa</i> open shrubland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YAR13	Poor to Good	Red, brown loamy clay	<i>Eucalyptus xerothermica</i> low open woodland over <i>Acacia ancistrocarpa</i> and <i>Acacia pruinocarpa</i> high shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Aristida inaequiglumis</i> and <i>Enneapogon polyphyllus</i> tussock grassland.

Site	Veg Condition	Soil	Site Description
YAR16	Poor	Red, brown alluvial loam with clay in depressions	<i>Eucalyptus xerothermica</i> low open woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia trachycarpa</i> subsp. <i>tumida</i> var. <i>pilbarensis</i> and <i>Acacia synchronicia</i> high open shrubland over <i>Triodia pungens</i> scattered hummock grasses over * <i>Cenchrus ciliaris</i> and <i>Aristida inaequiglumis</i> very open tussock grassland.
YAR17	Poor	Red, brown alluvial loam	<i>Eucalyptus xerothermica</i> low open woodland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia synchronicia</i> high open shrubland over <i>Eulalia aurea</i> and * <i>Cenchrus ciliaris</i> very open tussock grassland.
<b>AcAs*Cc (<i>Acacia citrinoviridis</i> woodland/shrubland - drain / riparian)</b>			
<b>General characteristics:</b> <i>Acacia citrinoviridis</i> and mixed <i>Acacia</i> species high shrubland over * <i>Cenchrus ciliaris</i> tussock grassland.			
YAR02	Very Poor	Red, brown loamy clay	<i>Acacia citrinoviridis</i> , <i>Cullen leucanthum</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> high shrubland over * <i>Cenchrus ciliaris</i> and <i>Chloris pectinata</i> very open grassland over * <i>Aerva javanica</i> very open herbland.
YAR05	Very Poor to Poor	Red, brown alluvial soil	<i>Acacia citrinoviridis</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) low woodland over <i>Acacia tetragonophylla</i> , <i>Acacia synchronicia</i> , <i>Eremophila longifolia</i> and <i>Atalaya hemiglauca</i> high open shrubland over * <i>Cenchrus ciliaris</i> tussock grassland.
<b>CaAn*Cc (<i>Corymbia aspera</i> low open woodland)</b>			
<b>General characteristics:</b> <i>Corymbia aspera</i> low open woodland over mixed <i>Acacia</i> species shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> open tussock grassland.			

Site	Veg Condition	Soil	Site Description
YA33	Poor	Red, brown loam with some areas sandy/alluvial	<i>Corymbia aspera</i> , <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) and <i>Acacia pruinocarpa</i> low open forest over <i>Acacia ancistrocarpa</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia tetragonophylla</i> high open shrubland over <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low scattered shrubs over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YB04	Good	Brown sandy loam	<i>Corymbia aspera</i> open woodland over <i>Acacia citrinoviridis</i> and <i>Acacia aneura</i> var. <i>aneura</i> high open shrubland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia synchronicia</i> shrubland over * <i>Cenchrus ciliaris</i> , <i>Themeda triandra</i> , <i>Dactyloctenium radulans</i> , <i>Eragrostis</i> aff. <i>eripoda</i> (WAS site 963), <i>Aristida holathera</i> var. <i>latifolia</i> and <i>Perotis rara</i> closed tussock grassland over * <i>Portulaca oleracea</i> and <i>Alternanthera angustifolia</i> very open herbland.
YB28	Poor	Fine red, brown sand	<i>Corymbia aspera</i> scattered low trees over <i>Acacia ancistrocarpa</i> and <i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259) high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> open heath over <i>Pluchea dunlopii</i> , <i>Acacia synchronicia</i> , <i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous) and <i>Eremophila lanceolata</i> low shrubland over <i>Ipomoea muelleri</i> scattered herbs.
YB38	Poor	Red, brown sandy loam	<i>Corymbia aspera</i> and <i>Acacia aneura</i> var. <i>pilbarana</i> low open woodland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Acacia pruinocarpa</i> shrubland over <i>Maireana villosa</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Solanum lasiophyllum</i> , <i>Eremophila lanceolata</i> , <i>Rhagodia eremaea</i> and <i>Acacia ancistrocarpa</i> low shrubland over <i>Chrysopogon fallax</i> , * <i>Cenchrus ciliaris</i> and <i>Dactyloctenium radulans</i> very open tussock grassland over <i>Gomphrena kanisii</i> and <i>Goodenia microptera</i> very open herbland.
YAR14	Poor to Very Poor	Alluvial loam	<i>Corymbia aspera</i> low open woodland over <i>Acacia ancistrocarpa</i> and <i>Acacia inaequilatera</i> high open shrubland over <i>Triodia pungens</i> open hummock grassland over <i>Aristida inaequiglumis</i> very open tussock grassland.

Site	Veg Condition	Soil	Site Description
YAR15	Good to Poor	Red, brown clayey loam	<i>Corymbia aspera</i> and <i>Eucalyptus xerothermica</i> low open woodland over <i>Acacia ancistrocarpa</i> , <i>Acacia aneura</i> var. <i>intermedia</i> , <i>Acacia pruinocarpa</i> and <i>Atalaya hemiglauca</i> high open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock
<b>EvAc*Cc (<i>Eucalyptus victrix</i> low woodland - drains / riparian)</b>			
<b>General characteristics:</b> <i>Eucalyptus victrix</i> low woodland over mixed <i>Acacia</i> species shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.			
YA18	Poor	Red, brown loam with some clay	<i>Eucalyptus victrix</i> , <i>Eucalyptus xerothermica</i> , <i>Acacia citrinoviridis</i> and <i>Acacia pruinocarpa</i> low open woodland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA54	Good to Poor	Red, brown clayey loam	<i>Eucalyptus victrix</i> low open woodland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia ancistrocarpa</i> high shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.
YB03	Poor	Dark brown rocky sandy loam	<i>Eucalyptus victrix</i> low woodland over <i>Petalostylis cassioides</i> high open shrubland over <i>Acacia citrinoviridis</i> and <i>Acacia inaequilatera</i> shrubland over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Tephrosia rosea</i> var. <i>glabrior</i> low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Eriachne tenuiculmis</i> and <i>Cymbopogon procerus</i> tussock grassland.
YB10	Poor	Red loam	<i>Eucalyptus victrix</i> low woodland over <i>Acacia citrinoviridis</i> , <i>Acacia aneura</i> var. <i>aneura</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> open shrubland over <i>Corchorus crozophorifolius</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia synchronicia</i> low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Chloris pumilio</i> , <i>Eragrostis</i> aff. <i>eripoda</i> (WAS site 963) and <i>Eragrostis tenellula</i> tussock grassland over * <i>Aerva javanica</i> and <i>Cleome viscosa</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YB13	Poor	Rocky red, brown sandy loam	<i>Eucalyptus victrix</i> low scattered trees over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia citrinoviridis</i> open heath over <i>Petalostylis cassioides</i> , <i>Gossypium australe</i> (Burrup Peninsula form) and * <i>Vachellia farnesiana</i> low open shrubland over * <i>Cenchrus ciliaris</i> and <i>Themeda triandra</i> closed tussock grassland.
YAR11	Poor	Red, brown loamy clay	<i>Eucalyptus victrix</i> , <i>Acacia pruinocarpa</i> and <i>Corymbia opaca</i> low open woodland over <i>Acacia pruinocarpa</i> , <i>Acacia synchronicia</i> , <i>Acacia marramamba</i> and <i>Acacia citrinoviridis</i> high open shrubland over * <i>Cenchrus ciliaris</i> tussock grassland over * <i>Aerva javanica</i> very open herbland.
<b>ApSaCf (<i>Acacia pruinocarpa</i> shrubland over <i>Senna artemisioides</i> scrub)</b>			
<b>General characteristics:</b> <i>Acacia pruinocarpa</i> and mixed <i>Acacia</i> species shrubland over <i>Senna artemisioides</i> (mixed subspecies) low shrubland over <i>Chrysopogon fallax</i> and * <i>Cenchrus ciliaris</i> tussock grassland.			
YB26	Very Poor	Red, brown sandy loam	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Ptilotus astrolasius</i> var. <i>astrolasius</i> , <i>Acacia pruinocarpa</i> , <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20), <i>Cullen lachnostachys</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Pterocaulon sphaeranthoides</i> low shrubland over * <i>Cenchrus ciliaris</i> , <i>Chrysopogon fallax</i> , <i>Eragrostis leptocarpa</i> , <i>Eragrostis cumingii</i> and <i>Dactyloctenium radulans</i> closed tussock grassland over <i>Cleome viscosa</i> and <i>Streptoglossa bubakii</i> open herbland.
YB27	Very Poor	Red, brown sandy loam	<i>Acacia pruinocarpa</i> shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous), <i>Eremophila lanceolata</i> , <i>Hibiscus sturtii</i> var. aff. <i>grandiflorus</i> , <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20), <i>Acacia aneura</i> var. <i>aneura</i> , <i>Acacia victoriae</i> and <i>Maireana villosa</i> low shrubland over <i>Chrysopogon fallax</i> , * <i>Cenchrus ciliaris</i> , <i>Aristida contorta</i> , <i>Iseilema eremaeum</i> and <i>Dactyloctenium radulans</i> tussock grassland over <i>Boerhavia coccinea</i> and <i>Goodenia nuda</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YB29	Poor	Red, brown sandy loam	<i>Acacia pruinocarpa</i> , <i>Acacia paraneura</i> and <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>helmsii</i> open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Streptoglossa macrocephala</i> , <i>Maireana villosa</i> , <i>Acacia aneura</i> var. <i>aneura</i> and <i>Pluchea dunlopii</i> low shrubland over <i>Chrysopogon fallax</i> , <i>Cymbopogon obtectus</i> , <i>Eulalia aurea</i> , <i>Aristida contorta</i> and <i>Eragrostis xerophila</i> open tussock grassland.
YB35	Poor	Red, brown clayey sand	<i>Acacia pruinocarpa</i> low open woodland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Acacia aneura</i> and <i>Acacia tetragonophylla</i> open scrub over <i>Eremophila lanceolata</i> , <i>Acacia aneura</i> var. <i>aneura</i> , <i>Maireana villosa</i> , <i>Solanum lasiophyllum</i> and <i>Senna artemisioides</i> subsp. <i>helmsii</i> low shrubland over <i>Iseilema eremaeum</i> and <i>Aristida contorta</i> open tussock grassland over <i>Ipomoea muelleri</i> scattered herbs.
<b>AsTp/*Cc (<i>Acacia synchronicia</i> shrubland)</b>			
<b>General characteristics:</b> <i>Acacia synchronicia</i> and mixed <i>Acacia</i> species shrubland over <i>Triodia pungens</i> hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Chrysopogon fallax</i> tussock grassland.			
YA23	Poor	Red, brown loam with some clay content	<i>Hakea lorea</i> subsp. <i>lorea</i> , <i>Atalaya hemiglauca</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia citrinoviridis</i> and <i>Cullen leucanthum</i> open heath over <i>Acacia synchronicia</i> low open shrubland over * <i>Cenchrus ciliaris</i> , <i>Chrysopogon fallax</i> and <i>Bothriochloa bladhii</i> closed tussock grassland over * <i>Aerva javanica</i> scattered herbs.
YA32	Good	Red, brown loam	<i>Eucalyptus gamophylla</i> scattered low trees over <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia ancistrocarpa</i> , <i>Acacia synchronicia</i> and <i>Acacia dictyophleba</i> high shrubland over <i>Triodia pungens</i> hummock grassland over * <i>Cenchrus ciliaris</i> very open hummock grassland.

Site	Veg Condition	Soil	Site Description
YA49	Poor	Red, brown loam with clay	<i>Eucalyptus xerothermica</i> scattered low trees over <i>Acacia ancistrocarpa</i> , <i>Senna glutinosa</i> subsp. <i>glutinosa</i> open shrubland over <i>Acacia inaequilatera</i> low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> very open tussock grassland.
YA56	Good to Poor	Red, brown loam with clay	<i>Eucalyptus gamophylla</i> scattered mallee trees over <i>Acacia ancistrocarpa</i> and <i>Acacia pruinocarpa</i> high shrubland over <i>Triodia pungens</i> and <i>Triodia lanigera</i> hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Aristida inaequiglumis</i> very open tussock grassland.
YB06	Very Good	Fine red sand	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia dictyophleba</i> and <i>Acacia pachyacra</i> high shrubland over <i>Acacia ancistrocarpa</i> and <i>Petalostylis cassioides</i> shrubland over <i>Triodia pungens</i> and <i>Triodia schinzii</i> hummock grassland over * <i>Cenchrus ciliaris</i> open tussock grassland over <i>Bonamia rosea</i> very open herbland.
YB14	Good	Fine red sand	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> open scrub over <i>Scaevola parvifolia</i> subsp. <i>pilbarae</i> , <i>Stylobasium spathulatum</i> , <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20), <i>Sida cardiophylla</i> , <i>Hibiscus sturtii</i> var. <i>platyklamys</i> , <i>Solanum lasiophyllum</i> and <i>Sclerolaena cornishiana</i> low shrubland over <i>Triodia pungens</i> hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Eragrostis</i> aff. <i>eripoda</i> (WAS site 963) tussock grassland over <i>Bonamia rosea</i> very open herbland.
YB15	Poor	Fine red, brown sand	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia synchronicia</i> open scrub over <i>Acacia bivenosa</i> , <i>Stylobasium spathulatum</i> , <i>Acacia ligulata</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Kennedia prorepens</i> , <i>Sclerolaena cornishiana</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low open shrubland over <i>Triodia pungens</i> open hummock grassland over * <i>Cenchrus ciliaris</i> closed tussock grassland over <i>Bonamia rosea</i> very open herbland.

Site	Veg Condition	Soil	Site Description
YB16	Good	Red, brown sand	<i>Acacia synchronicia</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia paraneura</i> , <i>Acacia ligulata</i> and <i>Acacia citrinoviridis</i> open scrub over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Eremophila forrestii</i> subsp. <i>forrestii</i> and <i>Stylobasium spathulatum</i> open shrubland over <i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous) low open shrubland over <i>Triodia pungens</i> closed hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Dactyloctenium radulans</i> and <i>Enneapogon polyphyllus</i> open tussock grassland over <i>Cleome viscosa</i> , <i>Abutilon</i> aff. <i>lepidum</i> (4) and <i>Gomphrena kanisii</i> very open herbland.
YB17	Poor	Red, brown loamy sand	<i>Acacia synchronicia</i> , <i>Acacia paraneura</i> , <i>Acacia wanyu</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> and <i>Acacia paraneura</i> open scrub over <i>Sclerolaena cornishiana</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> and <i>Solanum lasiophyllum</i> low open shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> and <i>Dactyloctenium radulans</i> tussock grassland over * <i>Portulaca oleracea</i> very open herbland.
YB18	Poor	Fine red, brown sand	<i>Grevillea striata</i> high open shrubland over <i>Eremophila forrestii</i> subsp. <i>forrestii</i> , <i>Sclerolaena cornishiana</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Solanum lasiophyllum</i> , <i>Rhagodia eremaea</i> , <i>Hakea lorea</i> subsp. <i>lorea</i> and <i>Maireana planifolia</i> low shrubland over <i>Triodia epactia</i> and <i>Triodia pungens</i> very open hummock grassland over <i>Aristida ingrata</i> , * <i>Cenchrus ciliaris</i> , <i>Dactyloctenium radulans</i> , <i>Chrysopogon fallax</i> , <i>Themeda triandra</i> and <i>Aristida contorta</i> tussock grassland over <i>Trianthema pilosa</i> scattered herbs.
YB19	Poor	Fine red, brown sand	<i>Corymbia aspera</i> low scattered trees over <i>Acacia tetragonophylla</i> , <i>Acacia synchronicia</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> open scrub over <i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous), <i>Ptilotus obovatus</i> var. <i>obovatus</i> , <i>Eremophila forrestii</i> subsp. <i>forrestii</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Maireana villosa</i> , <i>Sclerolaena cornishiana</i> , <i>Maireana planifolia</i> and <i>Solanum lasiophyllum</i> low shrubland over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Dactyloctenium radulans</i> , <i>Tragus australianus</i> and <i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963) tussock grassland over <i>Gomphrena kanisii</i> , <i>Goodenia prostrata</i> and <i>Boerhavia coccinea</i> very open herbland.



Site	Veg Condition	Soil	Site Description
YB23	Poor	Fine red sand	<i>Acacia synchronicia</i> high open shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> and <i>Hakea lorea</i> subsp. <i>lorea</i> shrubland over <i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous), <i>Maireana villosa</i> , <i>Solanum lasiophyllum</i> and <i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20) low open shrubland over * <i>Cenchrus ciliaris</i> , <i>Tragus australianus</i> , <i>Aristida contorta</i> , <i>Chrysopogon fallax</i> , <i>Dactyloctenium radulans</i> and <i>Eragrostis xerophila</i> closed tussock grassland over <i>Gomphrena kanisii</i> and <i>Goodenia prostrata</i> very open herbland.
YB41	Very Poor	Red, brown sand	<i>Acacia tetragonophylla</i> shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Pluchea dunlopii</i> , <i>Senna artemisioides</i> subsp. <i>helmsii</i> , <i>Hibiscus sturtii</i> var. aff. <i>grandiflorus</i> , <i>Tephrosia</i> aff. <i>supina</i> (MET 12,357), <i>Eremophila lanceolata</i> , <i>Rhagodia eremaea</i> and <i>Solanum lasiophyllum</i> low shrubland over <i>Chrysopogon fallax</i> and <i>Tragus australianus</i> open tussock grassland over <i>Sclerolaena cornishiana</i> , <i>Goodenia microptera</i> , <i>Pterocaulon sphaeranthoides</i> and <i>Boerhavia coccinea</i> herbland.
YB57	Very Poor	Red, brown loam	<i>Acacia synchronicia</i> and <i>Acacia tetragonophylla</i> open scrub over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> shrubland over <i>Sclerolaena cornishiana</i> , <i>Sida</i> aff. <i>fibulifera</i> (HD200-6), <i>Ipomoea muelleri</i> and <i>Gossypium australe</i> (Burrup Peninsula form) low shrubland over * <i>Cenchrus ciliaris</i> , <i>Eragrostis xerophila</i> and <i>Dactyloctenium radulans</i> open tussock grassland over <i>Boerhavia repleta</i> , * <i>Portulaca oleracea</i> , <i>Streptoglossa bubakii</i> and <i>Boerhavia coccinea</i> very open herbland.
YAR12	Poor	Red, brown loamy clay	<i>Acacia ancistrocarpa</i> and <i>Acacia pruinocarpa</i> high shrubland over <i>Triodia pungens</i> scattered hummock grasses over * <i>Cenchrus ciliaris</i> and <i>Aristida inaequiglumis</i> open tussock grassland.
<p><b>AdTp (<i>Acacia dictyophleba</i> and <i>Acacia ancistrocarpa</i> high shrubland – drain / riparian)</b></p> <p><b>General characteristics:</b> <i>Acacia dictyophleba</i>, <i>Acacia marramamba</i> and <i>Acacia ancistrocarpa</i> high shrubland over <i>Triodia pungens</i> very open hummock grassland over *<i>Cenchrus ciliaris</i>, <i>Chrysopogon fallax</i> tussock grassland.</p>			

Site	Veg Condition	Soil	Site Description
YB34	Poor	Red, brown sand	<i>Acacia ancistrocarpa</i> and <i>Acacia dictyophleba</i> high shrubland over <i>Corchorus sidoides</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i> , <i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350) and <i>Corchorus tectus</i> , <i>Ptilotus astrolasius</i> var. <i>astrolasius</i> low shrubland over <i>Triodia pungens</i> scattered hummock grasses over * <i>Cenchrus ciliaris</i> , <i>Chrysopogon fallax</i> , <i>Iseilema eremaeum</i> , <i>Aristida contorta</i> and <i>Dactyloctenium radulans</i> closed tussock grassland over <i>Ipomoea muelleri</i> scattered herbs.
YAR07	Poor	Red, brown gravel/rocky river bed	<i>Acacia marramamba</i> and <i>Acacia dictyophleba</i> high shrubland over <i>Tephrosia rosea</i> var. <i>glabrior</i> low scattered shrubs over <i>Triodia pungens</i> very open hummock grassland over * <i>Cenchrus ciliaris</i> tussock grassland.
<p><b>EIAaTw/Tp (<i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> low open woodland on hill slopes)</b></p> <p><b>General characteristics:</b> <i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> low open woodland over <i>Acacia aneura</i> var. <i>aneura</i> <i>Acacia bivenosa</i>, <i>Senna glutinosa</i> subsp. <i>glutinosa</i> shrubland over <i>Triodia wiseana</i>, <i>Triodia pungens</i>, <i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835) hummock grassland over *<i>Cenchrus ciliaris</i> open tussock grassland.</p>			
YB02	Very Good	Rocky skeletal	<i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> low open woodland over <i>Acacia aneura</i> var. <i>aneura</i> , <i>Senna glutinosa</i> subsp. <i>glutinosa</i> and <i>Acacia bivenosa</i> open heath over <i>Calytrix carinata</i> , <i>Ptilotus rotundifolius</i> and <i>Gompholobium karjini</i> low shrubland over <i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835) and <i>Triodia pungens</i> hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Eriachne lanata</i> and <i>Cymbopogon obtectus</i> open tussock grassland.
YB05	Very Good	Rocky skeletal	<i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i> scattered low trees over <i>Acacia bivenosa</i> , <i>Senna glutinosa</i> subsp. <i>glutinosa</i> and <i>Senna glutinosa</i> subsp. <i>pruinosa</i> shrubland over <i>Ptilotus rotundifolius</i> , <i>Maireana georgei</i> , <i>Acacia aneura</i> var. <i>aneura</i> and <i>Eremophila latrobei</i> subsp. <i>glabra</i> low shrubland over <i>Triodia wiseana</i> and <i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835) closed hummock grassland over * <i>Cenchrus ciliaris</i> , <i>Themeda triandra</i> , <i>Enneapogon caerulescens</i> var. <i>caerulescens</i> , <i>Cymbopogon procerus</i> , and <i>Aristida ingrata</i> open tussock grassland.

### 3.1.5 Threatened and Priority Ecological Communities

No TECs or PECs were recorded in the project area.

### 3.1.6 Vegetation Condition

The condition of the vegetation in the project area ranged from Completely Degraded to Very Good, with most sites recorded as being Poor to Very Good. The only significant area of reserve that was recorded in Good condition was between Chainage 353 and 399.

There was a high level of disturbance recorded in the project area: disturbances included clearing, grading, tracks, operation of the railway, infrastructure development and introduced species (e.g. *\*Cenchrus ciliaris*).

Some sections of the railway reserve were cleared for railway stockyards or maintenance areas - these are shown in Figure 3.

Of the 80 m wide railway reserve, approximately 50% was vegetated: the remainder was cleared for tracks, the railway line and stockyards.

Most sites were considered to have Moderate to Old fire ages.

## 4 DISCUSSION

There were 28 person-days invested in the field survey, which included the compilation of a species inventory, Declared Rare and Priority Flora search, assessment of vegetation condition, and vegetation communities and introduced species mapping.

### 4.1 FLORA RICHNESS

There were 353 taxa recorded in the Jimblebar Junction to Yandi Junction railway reserve (approximately 480 ha of which was vegetated). This level of species richness is high in comparison to that of other flora surveys nearby - for example, 200 taxa were recorded at Mindy North from an area of approximately 5000 ha (ENV 2007a), 95 taxa were recorded at Mindy East from an area of approximately 600 ha (ENV 2007b), 217 taxa were recorded at Coondiner from an area of approximately 1600 ha (ENV 2007b), and 244 taxa were recorded at Marillana from an area of approximately 16 000 ha (*ecologia* Environment 2007).

The high species richness in the railway reserve is believed to be due to the linear nature of the project area, which resulted in a large number of vegetation communities being traversed.

There were 42 families recorded in the project area. The most common families were Poaceae (with 62 taxa recorded), Mimosaceae (40 taxa) and Malvaceae (38 taxa). These families have also been recorded as common families in other surveys nearby, for example at Marillana (*ecologia* Environment 2007), Mindy East (ENV 2007b), Coondiner (ENV 2007b) and Mindy North (ENV 2007a).

There were 13 families represented by only 1 taxon. Typically, a large number of families are represented by only 1 taxon in flora surveys - for example, 17 families were represented by only 1 taxon at nearby Marillana (*ecologia* Environment 2007).

There were 173 genera recorded, with 67 represented by only 1 taxon. The most common genera were *Acacia* (38 taxa), *Senna* (13 taxa) and *Sida* (13 taxa). These taxa have been recorded as common genera in other surveys of the Pilbara bioregion (van Vreeswyk *et al.* 2004), and in other nearby floristic surveys (*ecologia* Environment 2007, ENV 2007a, ENV 2007b).

The average floral richness per quadrat was 27.98 taxa. Compared to other flora surveys conducted nearby (using 50 m x 50m quadrat sampling methodology), this level of taxa richness is high - for example, 23.4 taxa per quadrat were recorded at the Mindy North exploration tenement (ENV 2007a), 23.4 taxa per quadrat were recorded at the Coondiner exploration tenement (ENV 2007b), and

24.4 taxa per quadrat were recorded at the Mindy East exploration tenement (ENV 2007b).

## 4.2 FLORA OF CONSERVATION SIGNIFICANCE

There were 4 Priority Flora species recorded in the railway reserve survey area: *Eremophila* sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004) (Priority 1), *Bulbostylis burbidgeae* (Priority 3), *Goodenia nuda* (Priority 3) and *Rostellularia adscendens* subsp. *adscendens* var. *latifolia* (Priority 3).

The Priority 1 taxon *Eremophila* sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004) was recorded at 2 locations in the southernmost section of the railway reserve. One collection was made from low rocky hills, which were mapped as vegetation community type EIAaTw/Tp (snappy gum open woodland). This collection was made just outside the project area, in an area surveyed as part of a buffer zone (chainage 401.4 km). The cover of the species in this location was 1%. The second collection was made on the border of the project area and buffer zone on a sandplain (chainage 368.2 km), in an area mapped as vegetation community type AsTp/\*Cc (*Acacia synchronicia* shrubland). The cover of the species at this location was less than 1%.

*Eremophila* sp. Ophthalmia Range is an undescribed shrubby species closely related to *Eremophila margarethae* (Sandbank Poverty Bush). It was identified as a potentially occurring Priority species in the project area. It has been recorded near the project area, at Orebody 23 (*ecologia* Environment 2004f), Orebody 18 (*ecologia* Environment 2004f), East Ophthalmia Range (*ecologia* Environment 2004c), Jimplebar Wye (*ecologia* Environment 2005a) and at other locations surrounding Newman (*ecologia* Environment 2005a).

The Priority 3 taxon *Bulbostylis burbidgeae* was recorded at 1 site (YA25) in the project area at Chainage 301.2 km, in an area mapped as vegetation type ApAsCf/\*Cc (*Acacia pruinocarpa* low woodland). The cover of this species was less than 1%. *Bulbostylis burbidgeae* is a small (less than 0.25 m high) tufted, erect to spreading annual grass-like herb (WAH 2008). *Bulbostylis burbidgeae* was not identified as a potentially occurring species in the project area, and has not been recorded from floristic surveys in the immediate vicinity of the project area (i.e. at Mindy North, Mindy East, Coondiner, Marillana, East Ophthalmia Range or Jimplebar-Wheelarra Hill).

The Priority 3 taxon *Goodenia nuda* was recorded at 8 sites (YB22, YB25, YB26, YB27, YB29, YB41, YB55 and YAOP22TE) in the railway reserve. The cover of the species was less than 1% at all locations, except for YB26 and YB27, where cover was 1% and 2% respectively. *Goodenia nuda* was recorded in a range of vegetation types: AaAsCf/\*Cc (at YB22 and YB25), ApSaCf (at YB26, YB27 and YB29), AsTp/\*Cc (at YB41), AaAnTp/\*Cc (at YB55) and AdAnTp/\*Cc (at

YAOP22TE). The landforms on which the species was recorded were generally plains and floodplains. *Goodenia nuda* is an erect to ascending herb that grows to 0.5 m high (WAH 2008). It was identified as a potentially occurring Priority species in the project area.

*Rostellularia adscendens* subsp. *adscendens* var. *latifolia* was recorded at 3 sites: YA34, YB50 and YB59. YA34 and YB50 were sandplains, and were mapped as vegetation types AaAnTp/\*Cc (*Acacia aneura* open woodland) and AaAsCf/\*Cc (*Acacia aneura* shrubland) respectively. Site YB59 was a major drainage line, mapped as ExAa\*Cc (*Eucalyptus xerothematica* low open woodland – riparian). Cover of this taxon at all sites was less than 1%. *Rostellularia adscendens* subsp. *adscendens* var. *latifolia* was not identified as a potentially occurring species in the project area, and has not been recorded from floristic surveys near the project area (i.e. at Mindy North, Mindy East, Coondiner, Marillana, East Ophthalmia Range or Jimblebar-Wheelarra Hill). *Rostellularia adscendens* subsp. *adscendens* var. *latifolia* is a small herb to shrub that grows to 0.3 m tall. It is typically associated with ironstone soils, near creeks and rocky hills (WAH 2008). Two endemic geographically isolated distributions of *R. adscendens* subsp. *adscendens* var. *latifolia* are recorded in the Pilbara region, 1 in the north-east (near Yarrrie mine site) and 1 in the south-east (in the Hamersley ranges) (WAH 2008).

No Declared Rare Flora species, species listed under the EPBC Act, or other species of local conservation significance were recorded in the survey.

The survey is considered to have been adequate, since the area had received more rainfall (175.6 mm) in the 3 months before survey than the long-term average (1965-2003) for the same period of 111.8 mm (BOM 2008). Most annual and perennial species would therefore have been recorded if they were present, although it was observed that some annual herbs and grasses had hayed off in some of the quadrants.

#### 4.3 INTRODUCED SPECIES

Eleven of the 353 taxa recorded were introduced species: *\*Aerva javanica* (Kapok bush), *\*Bidens bipinnata* (Bipinnate Beggartick), *\*Cenchrus ciliaris* (Buffel Grass), *\*Cenchrus setiger* (Birdwood grass), *\*Chloris virgata* (Feathertop Rhodes Grass), *\*Cucumis melo* subsp. *agrestis* (Ulcardo Melon), *\*Cynodon dactylon* (Couch), *\*Malvastrum americanum* (Spiked Malvastrum), *\*Portulaca oleracea* (Purslane), *\*Setaria verticillata* (Whorled Pigeon Grass) and *\*Vachellia farnesiana* (Mimosa Bush).

*\*Aerva javanica* is a perennial herb that typically occurs along drainage lines through the north of Western Australia (WAH 2008). It has a High rating under the Environmental Weed Strategy (CALM 1999). *\*Aerva javanica* was

widespread in the project area, and was recorded at 31 locations (25 sites, 3 relevés and 3 opportunistic collections). The cover of *\*Aerva javanica* was no greater than 1% at all locations, except for YAR02 (3%), YAR11 (2%), YB10 (6%). and along the railway embankment (central) where it formed dense heath (as shown in the cover photograph). The predominance of *\*Aerva javanica* in this section of the project area is probably a result of its ability to colonise degraded ground, typically along roadsides (Pethram & Kok 2003).

*\*Bidens bipinnata* is an annual herb commonly found on loamy soils on rocky hillsides and adjacent to rivers and creeks (WAH 2008). It is yet to be classified under the Environmental Weed Strategy (CALM 1999). It was recorded at 4 sites and in 2 opportunistic collections. All sites were sandplains (vegetation types AaAnTp/\*Cc, ApAsCf/\*Cc, AsTp/\*Cc and AaAnTp/\*Cc), and the cover of the species was no greater than 1%.

*\*Cenchrus ciliaris* is a perennial grass that occurs across much of northern Australia, and semi-arid areas (CRC Weed Management 2008). It has a High rating under the Environmental Weed Strategy (CALM 1999). It is known to out-compete native flora, exude allelopathic chemicals, adversely alter fire regimes and to be highly invasive (CRC Weed Management 2008). *\*Cenchrus ciliaris* was the most common, and most dominant, introduced species recorded in the project area. It was recorded at 109 sites, 14 relevés and 1 opportunistic collection. The cover of *\*Cenchrus ciliaris* ranged from less than 1% to 90%, with an average cover of 22.26%. Ten of the 14 vegetation types mapped in the project area were dominated by *\*Cenchrus ciliaris* grassland understoreys.

*\*Cenchrus setiger* is an erect tussock-like perennial grass found across a range of habitats, including sandplains, floodplains, rangelands and stony hillsides (WAH 2008). It has a High rating under the Environmental Weed Strategy, as it is highly invasive, has a wide distribution, and has the ability to change the structure, composition and function of native ecosystems (CALM 1999). *\*Cenchrus setiger* was recorded at 1 site, a sandplain area, mapped as vegetation community type ChAp\*Cc, and had a cover of less than 1%. This species looks superficially similar to *\*Cenchrus ciliaris*, so may have been misidentified in the field on occasion.

*\*Chloris virgata* is an annual herb found in sandy areas (WAH 2008), and has a Low rating under the Environmental Weed Strategy (CALM 1999). *\*Chloris virgata* was found at 1 site, a sandplain, mapped as vegetation community type AaAnTp/\*Cc, and had a cover of less than 1%.

*\*Cucumis melo* subsp. *agrestis* is a trailing climber which is potentially poisonous to stock (Wheeler *et al.* 1990), but is not classified under the Environmental Weed Strategy (CALM 1999). It was recorded at 3 sites (1 riparian and 2 sandplain habitats) and in 1 opportunistic collection (riparian habitat).

\**Cynodon dactylon* is a prostrate perennial grass and is rated Moderate under the Environmental Weed Strategy, as it is highly invasive and has a wide distribution (CALM 1999). \**Cynodon dactylon* was recorded at 1 site, a sandplain (vegetation type AaAnTp/\*Cc), and had a cover of less than 1%.

\**Malvastrum americanum* was located at 14 sites, 2 relevés and in 4 opportunistic collections, and had a cover of no greater than 2%. \**Malvastrum americanum* has a rating of Moderate under the Environmental Weed Strategy (CALM 1999). It generally occurs on alluvial soils along watercourses or on floodplains (WAH 2008).

\**Portulaca oleracea* is a succulent, decumbent to prostrate annual species that is widespread across Western Australia (WAH 2008). It is not rated under the Environmental Weed Strategy (CALM 1999), and is very common in the Pilbara region. It was recorded at 51 sites and 1 relevé, and had a cover of no greater than 3%.

\**Setaria verticillata* is an annual grass which is rated as Low under the Environmental Weed Strategy (CALM 1999). It was recorded at 6 sites, all of which were sandplain habitats, and had a cover of less than 1% at all sites.

\**Vachellia farnesiana* (formerly \**Acacia farnesiana*) is a thorny shrub commonly found in low-lying areas, river and creek banks, and favours disturbed sites (WAH 2008). It has a High rating under the Environmental Weed Strategy (CALM 1999). \**Vachellia farnesiana* was introduced to Australia before European settlement. It was recorded at 4 sites (2 sandplain and 2 drainage habitats), 1 relevé (drainage habitat) and 1 opportunistic collection (riparian habitat). \**Vachellia farnesiana* had a cover of no greater than 3% at all sites.

The large number of introduced species recorded in the railway reserve is believed to be a result of the operation and construction of the railway line, grading and operation of 2 access tracks and cattle grazing. Grazing, grading and vehicle movements are known to create ideal conditions for introduced species invasion (Hussey *et al.* 1997).

No taxa recorded in the project area were Declared Plants as per the Agriculture and Related Resources Protection Act.

#### 4.4 VEGETATION COMMUNITIES

Fourteen broad vegetation communities were mapped along the Jimblebar Junction to Yandi Junction railway reserve. More refined vegetation community analysis using multivariate analysis was precluded by the degraded and linear nature of the railway reserve vegetation. For example, community-defining taxa



could easily be missed in the narrow railway reserve quadrats, despite including associated species outside quadrats.

One interesting feature of the vegetation communities in the project area was the difference between vegetation on the south-west side of the railway line to that on the north-east side. Vegetation on the south-west side generally had higher species richness and was more closed than that of the north-east side. Also, many trees and shrubs were recorded as dead on the north-east side.

The most dominant vegetation community type in the railway reserve was 'Acacia aneura shrubland' (AaAsCf/\*Cc), characterised by *A. aneura* (mixed subspecies), *A. ancistrocarpa*, *A. pruinocarpa*, *A. synchronicia* shrubland over *Triodia pungens* very open hummock grassland over *Chrysopogon fallax* and \**Cenchrus ciliaris* tussock grassland. This vegetation community was dominant on the sandplains in the southern 60 kilometres of the rail line. There was a high level of subspecies richness in *Acacia aneura* in this vegetation type and in other vegetation types dominated by *A. aneura*. There were at least 5 subspecies of *A. aneura* in this survey, compared to only 1 at Marillana exploration tenement (*ecologia* Environment 2007), 1 at Coondiner (ENV 2007), 2 at Mindy East (ENV 2007b), and none were recognised at East Ophthalmia Range (*ecologia* Environment 2004c). Seven subspecies of *A. aneura* are recognised in the Pilbara bioregion (WAH 2008), although more are thought to exist (pers. comm. Malcolm Trudgen).

The second most dominant vegetation community type was *Acacia aneura* open woodland (AaAnTp/\*Cc), which was characterised by *A. aneura* (mixed subspecies) low open woodland over *A. ancistrocarpa* shrubland over *Triodia pungens* open hummock grassland over \**Cenchrus ciliaris* tussock grassland. This vegetation community was mostly confined to the plains in the northern 60 kilometres of the project area. It was closely associated with vegetation community type AaAsCf/\*Cc, but was less dense in composition.

Much of the northernmost plains of the project area had '*Corymbia hamersleyana* woodland' (ChAp\*Cc). These rather open vegetation communities consist of *C. hamersleyana* and *C. opaca* (and some *C. semiclara* – a species not currently recognised by the WAH, but considered taxonomically different by Malcolm Trudgen) scattered low trees to open woodland over mixed *Acacia* shrubland over *Triodia pungens* and *T. basedowii* open hummock grassland over \**Cenchrus ciliaris* and other mixed tussock grasses.

'*Eucalyptus gamophylla* low open mallee woodland' (EgApTp\*Cc) covered a large area of plains in the project area. This vegetation type was characterised by scattered-open woodland of *Eucalyptus xerothermica* over low open woodland or scattered *E. gamophylla* mallee over mixed *Acacia* shrublands over *Triodia pungens* open hummock grassland over \**Cenchrus ciliaris* tussock grassland.

Open woodland of the mallees *Eucalyptus socialis* subsp. *eucentrica* and *E. trivalvis* occurred in places.

The remainder of the plains was a mosaic between smaller vegetation community types. This included 'Acacia *pruinocarpa* low woodland' (ApAsCf/\*Cc), which was characterised by *A. pruinocarpa* low woodland to tall shrubland over mixed *Acacia* species shrubland over *Triodia pungens* and *T. lanigera* over \**Cenchrus ciliaris* tussock grassland. This vegetation community type occurred predominantly in the northern half of the project area.

Another vegetation community more frequently mapped in the northern half of the project area was 'Acacia *dictyophleba* shrubland' (AdAnTp/\*Cc), which was characterised by *A. dictyophleba* high shrubland to open scrub over mixed *Acacia* species shrubland over mixed *Triodia* species over \**Cenchrus ciliaris* tussock grassland.

Between chainage 374 and 382 'Acacia *pruinocarpa* shrubland over *Senna artemisioides* scrub' (ApSaCf) was mapped. This vegetation type was characterised by *A. pruinocarpa* and mixed *Acacia* species shrubland over *Senna artemisioides* (subsp. *helmsii*, *oligophylla* or hybrids of these) low shrubland over *Chrysopogon fallax* and \**Cenchrus ciliaris* tussock grassland.

In the lower half of the project area, the vegetation community type 'Acacia *synchronicia* shrubland' (AsTp/\*Cc) was generally restricted. This vegetation type was characterised by *A. synchronicia* and mixed *Acacia* species shrubland over *Triodia pungens* hummock grassland over \**Cenchrus ciliaris* and *Chrysopogon fallax* tussock grassland.

The mixed *Acacia* species high to low shrubland that occurred in most plains vegetation community types included species such as *A. synchronicia*, *A. ancistrocarpa*, *A. tetragonophylla*, *A. pruinocarpa*, *A. aneura*, *A. bivenosa*, *A. victoriae* and *A. sclerosperma* subsp. *sclerosperma*.

The floodplains in the project area were mapped as 'Corymbia *aspera* low open woodland' (CaAn\*Cc), which was characterised by *C. aspera* low open woodland over mixed *Acacia* species shrubland over *Triodia pungens* open hummock grassland over \**Cenchrus ciliaris* open tussock grassland. *Corymbia aspera* is a species known to favour floodplains, although it also occurs on rocky outcrops and hills (WAH 2008).

There were 4 vegetation types closely allied to drainage systems in the project area. The most common was 'Eucalyptus *xerothermica* low open woodland' (ExAa\*Cc) which was characterised by *E. xerothermica* low open woodland over *Acacia citrinoviridis* and other mixed *Acacia* species shrubland over *Triodia pungens* open hummock grassland over \**Cenchrus ciliaris* open tussock grassland, and is represented in the riparian regions adjacent to the drainage

lines. *Acacia citrinoviridis*, which was common in ExAa\*Cc, also dominated another vegetation type, ‘*A. citrinoviridis* woodland/shrubland’ (AcAs\*Cc). This riparian vegetation type was recorded characterised by *A. citrinoviridis* and mixed *Acacia* species high shrubland over \**Cenchrus ciliaris* tussock grassland. *Acacia citrinoviridis* is a species known to favour rocky creek lines and beds, similar to those in the project area (WAH 2008).

‘*Eucalyptus victrix* low woodland’ (EvAc\*Cc) formed another dominant riparian vegetation type, which was characterised by *E. victrix* low woodland over mixed *Acacia* species shrubland over *Triodia pungens* very open hummock grassland over \**Cenchrus ciliaris* tussock grassland, and was recorded in the drainage lines. *E. victrix* is a species that commonly occurs on floodplains in the Pilbara region (WAH 2008).

A lesser prominent riparian vegetation type was ‘*Acacia dictyophleba* and *A. ancistrocarpa* high shrubland’ (AdTp), which consist of *A. dictyophleba* and *A. ancistrocarpa* high shrubland over *Triodia pungens* very open hummock grassland over \**Cenchrus ciliaris* and *Chrysopogon fallax* tussock grassland.

In the very south of the project area, an additional vegetation community type was mapped – ‘*Eucalyptus leucophloia* subsp. *leucophloia* low open woodland on hill slopes’ (EIAaTw/Tp). This vegetation type was characterised by *E. leucophloia* subsp. *leucophloia* low open woodland over *Acacia aneura* var. *aneura*, *A. bivenosa* and *Senna glutinosa* subsp. *glutinosa* shrubland over *Triodia wiseana*, *T. pungens* and *T. sp.* Shovelanna Hill (S. van Leeuwen 3835) hummock grassland over \**Cenchrus ciliaris* open tussock grassland (EIAaTw/Tp).

#### 4.5 VEGETATION OF CONSERVATION SIGNIFICANCE

No TECs, PECs or vegetation of regional significance were recorded in the project area. This was expected, as no TECs or PECs were identified as occurring in the project area by a search of the DEC database.

#### 4.6 VEGETATION CONDITION

Vegetation condition of the Jimblebar Junction to Yandi Junction railway reserve was described as Completely Degraded to Very Good, with most sites recorded as being Poor to Very Poor.

The poor condition of vegetation was a result of the close proximity of the railway line to the project area. There was high disturbance from railway operations, clearing, grading, infrastructure development and introduced species, for example \**Cenchrus ciliaris* and \**Aerva javanica*. Disturbance caused by cattle was recorded at most sites, including grazing and trampling. Pastoralism is recognised as a major disturbance across the Pilbara region, and commonly

causes a reduction in perennial species richness and density (van Vreeswyk *et al.* 2004).

Along much of the track beside the railway line, the first 5-10 metres was regenerating vegetation growing on a drainage culvert/ditch. One quadrat (YA19) and 1 relevé (YAR06) were placed in this area, and the vegetation of both was described as Very Poor to Completely Degraded. The vegetation of these areas represented regrowth of the surrounding intact vegetation.

The most intact vegetation was recorded furthest away from the railway. However, even in these areas it was often evident that clearing had been undertaken to lay communication cables or pipes in the past.

The central rail line and access tracks occupied approximately 40 m of the railway reserve (50% of the total reserve), which was Completely Degraded. Some other areas were cleared for storage of railway construction equipment, and these were also Completely Degraded. The Completely Degraded areas were often dominated by introduced species - mainly *\*Cenchrus ciliaris* or *\*Aerva javanica*.

The drainage systems of the project area were also considerably disturbed, and their vegetation was described as being in Very Poor to Good condition, with most rated as Poor. Drainage areas tended to have a high level of disturbance from cattle (e.g. trampling and grazing), introduced species (e.g. *\*Vachellia farnesiana*) and anthropogenic drainage systems (e.g. artificial banks and river beds).

Most sites had Moderate to Old fire ages. Recent fire disturbance was indicated by the presence of charred stumps, dead shrubs, gaps in *Triodia* swards, epicormic growth and presence of coloniser species (e.g. *Senna notabilis*). The absence of fire was indicated by well-developed *Triodia* swards and well-developed trees and shrubs.

#### 4.7 REGIONAL REPRESENTATION

Three vegetation types are mapped by Beard (1975) in the project area: shrub steppe (e<sub>25</sub>Sr.t<sub>2</sub>Hi), sparse low woodland (a<sub>1</sub>Lp) and tree steppe (e<sub>16</sub>Lr.t<sub>3</sub>Hi). Shepherd, Beeston and Hopkins (2002) reported that these vegetation types existed at 100% of their pre-European settlement extent in Western Australia. ENV vegetation community types roughly correlate to these regional vegetation types (Table 5). The most dominant and common Beard (1975) vegetation community type in the project area is a<sub>1</sub>Lp, and most of the ENV. vegetation community types fit into this category.

**Table 5:** Beard Vegetation Community Types Correlated to ENV Vegetation Community Types

Beard Vegetation Community Type	ENV Vegetation Community Type
e <sub>16</sub> Lr.t <sub>3</sub> Hi	EIAaTw/Tp
e <sub>25</sub> Sr.t <sub>2</sub> Hi	EgApTp/*Cc
	ChAp*Cc
a <sub>1</sub> Lp	ExAa*Cc
	CaAn*Cc
	EvAc*Cc
	AdAnTp/*Cc
	AaAnTp/*Cc
	AaAsCf/*Cc
	ApAsCf/*Cc
	AcAs*Cc
	ApSaCf
	AsTp/*Cc
	AdTp

Current EPA guidance recommends a standard level of native vegetation retention of at least 30% of each ecological community, based on its pre-European settlement extent in the State. Below this threshold level, species loss is known to accelerate exponentially at an ecosystem level (EPA 2000). These levels have been recognised in the *National Objectives and Targets for Biodiversity Conservation 2001-2005* (Commonwealth of Australia 2001), which recognises that the retention of 30% or more of the pre-clearing extent of each ecological community is generally necessary if Australia’s biological diversity is to be protected. The vegetation communities described in this survey exist at more than 30% of the retention rate recommended for Western Australia by the EPA’s Position Statement No. 2 (EPA 2000). Therefore, there is considered to be no constraint to clearing with regard to the regional significance of the vegetation complexes.

The railway reserve from Jimblebar Junction to Yandi Junction consists of 10 land systems, as described by van Vreeswyk *et al.* (2004). Five of these systems (Fan, Divide, Urandy, Newman and Fortescue) cover most of the project area,

while the other 5 (Rocklea, Boolgeeda, Washplain, River and Marillana) cover only approximately 10%.

The Newman, Rocklea, Boolgeeda, Divide and River cover a large portion of the Pilbara bioregion - 8% (14 580 km<sup>2</sup>), 12.7% (22 993 km<sup>2</sup>), 4.3% (7748 km<sup>2</sup>), 2.9% (5293 km<sup>2</sup>) and 2.3% (4088 km<sup>2</sup>) respectively. These land systems are also geographically widespread, so localised disturbances associated with the project are less likely to have an impact on the overall land systems and flora they are likely to support.

The Fan, Urandy and Washplain cover a smaller portion of the Pilbara bioregion - 0.8%, 0.7% and 0.5% respectively. However, they still cover a considerable area: the Fan, Urandy and Washplain land systems cover 1482 km<sup>2</sup>, 1311 km<sup>2</sup> and 917 km<sup>2</sup> respectively. To put this in context, of the 102 land systems documented and described by van Vreeswyk *et al.* (2004), 80 land systems each represent less than 1% of the total area surveyed. In addition, the Fan, Urandy and Washplain land systems are quite geographically widespread, so localised disturbances associated with the project are less likely to have an impact on the land systems and flora they are likely to support.

The Fortescue and Marillana land systems are smaller and more localised in the Fortescue region, covering 504 km<sup>2</sup> and 419 km<sup>2</sup> respectively. However, they are locally abundant in the Fortescue region. Considering this, and the small size and linear nature of the project area (4.8 km<sup>2</sup>), the regional representation of these land systems in the project area is unlikely to be significantly impacted by the proposed development.

## 5 MANAGEMENT RECOMMENDATIONS

### 5.1 GENERAL RECOMMENDATIONS

- All clearing operations should be kept to a minimum to reduce impacts on surrounding native vegetation;
- boundaries of areas to be disturbed should be clearly demarcated to prevent any erroneous damage to vegetation;
- changes to water flow patterns should be avoided where possible;
- where possible, current tracks and cleared sections should be used for site access and clearing to minimise the impact on the area's flora; and
- following construction, any impacted surrounding areas should be rehabilitated as soon as possible using stockpiled topsoil, vegetation and litter from the site.

### 5.2 SPECIES OF CONSERVATION SIGNIFICANCE MANAGEMENT

- Disturbance to the locations of the Priority species *Eremophila* sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004) (Priority 1), *Bulbostylis burbidgeae* (Priority 3), *Goodenia nuda* (Priority 3) and *Rostellularia adscendens* subsp. *adscendens* var. *latifolia* (Priority 3) should be avoided if possible;
- the locations of Priority Flora should be clearly demarcated to prevent damage to these species;
- construction personnel should be made aware of Priority Flora in the railway reserve, and should be encouraged to report sightings; and
- as flora of conservation significance may also exist in stands of vegetation near where they were recorded (refer to section 4.2, clearing or disturbance to such areas should be minimised).

### 5.3 INTRODUCED FLORA MANAGEMENT

- Movement of topsoil and subsoil should be managed to ensure that introduced species along the rail line are not spread into adjacent undisturbed habitats;
- before construction, any *\*Aerva javanica* and *\*Vachellia farnesiana* adjacent to the development area should be sprayed to limit invasion into areas free of introduced species;

- control of *\*Cenchrus ciliaris* may not be possible because of its dominance in the region, but its further spread into areas free of introduced species should be avoided;
- construction personnel should be made aware of introduced species in the area, to avoid their accidental spread; and
- a weed management plan should be developed and implemented before construction.



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*ecologia* Environmental Consultants (2003). *Yandi Stock Yard and Overland Conveyor – Flora and Fauna Assessment*. Unpublished report for BHP Billiton Iron Ore Pty Ltd.

Maunsell (2003). *Yandi Life of Mine Flora and Fauna*. Unpublished report for BHP Iron Ore Pty Ltd.

### ***Upper Marillana / Marillana Creek***

*ecologia* Environment (2005). *Upper Marillana Biological Assessment*. Unpublished report for BHP Billiton Iron Ore Pty Ltd.

ENV (2007). *Upper Marillana: Flora and Vegetation Assessment*. Unpublished report for BHP Billiton Iron Ore Pty Ltd.

Halpern Glick Maunsell (1997). *Marillana Creek Iron Ore Project Survey for Goodenia stellata and Flora of Interest (May) 1997*. Unpublished report for BHP Iron Ore Pty Ltd.

Halpern Glick Maunsell (1999). *Marillana Creek Western Access Corridor – Biological Assessment*. Unpublished report for BHP Billiton Iron Ore Pty Ltd.

### ***Munjina***

ENV (2007). *Munjina Exploration Lease: Flora and Vegetation Assessment*. In prep. unpublished report for BHP Billiton Iron Ore Pty Ltd.

### ***Karijini National Park***

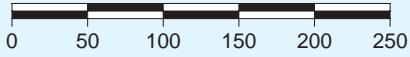
Halpern Glick Maunsell (1995). *Karijini Link Road Water Bores and Bea Bea Quarry Expansion*. Unpublished report for Main Roads Western Australia.

# FIGURES





kilometres



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08-165-veg-f01.dgn  
DATUM: MGA50  
DRAWN: CR 24-07-08  
AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
RAILWAY RESERVE VEGETATION ASSESSMENT

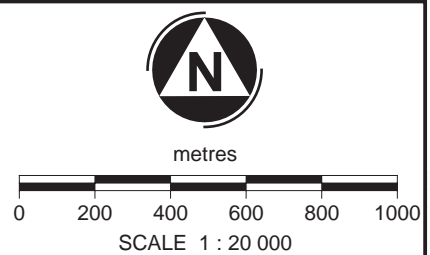
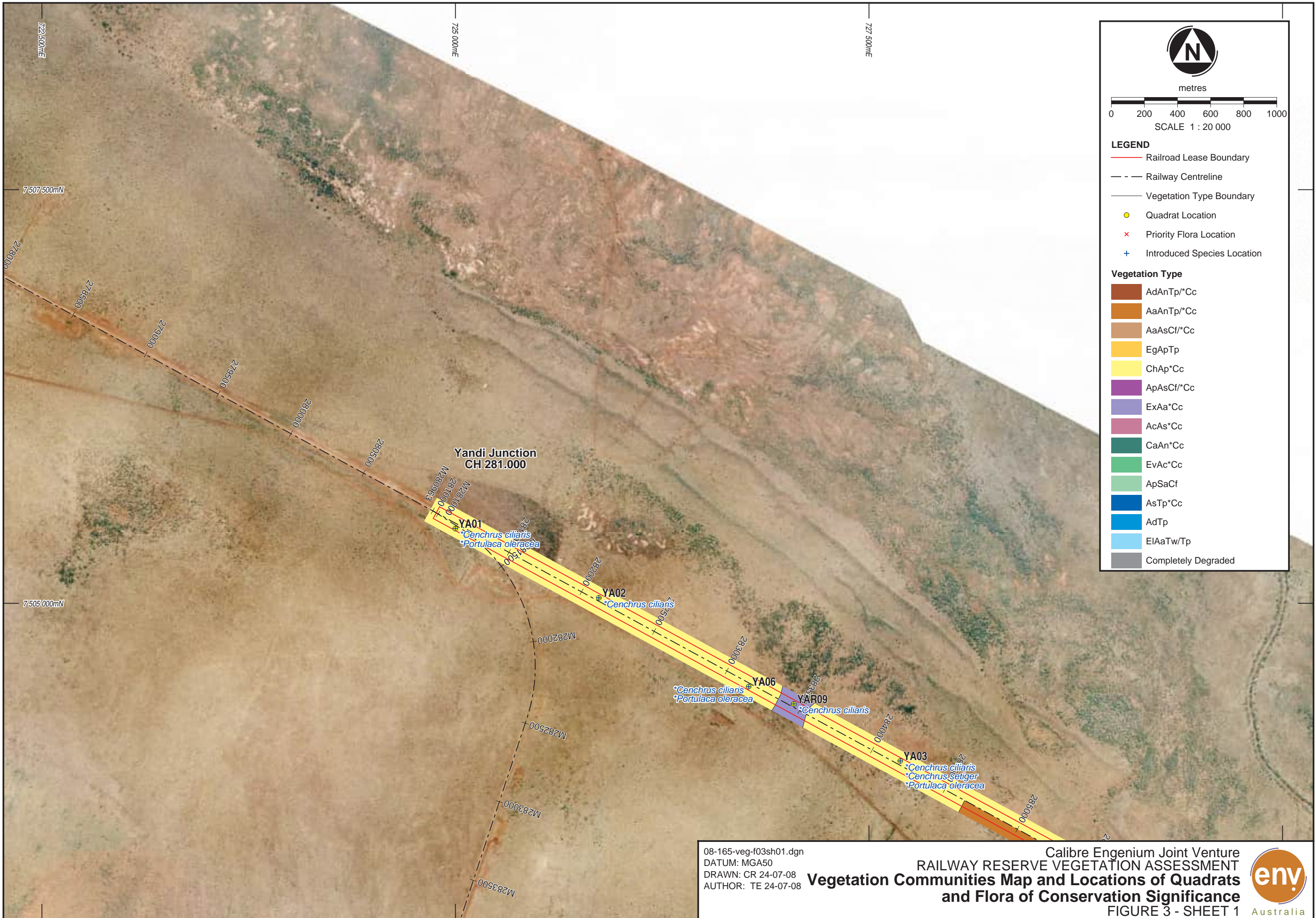
Project Area Location

FIGURE 1



Australia



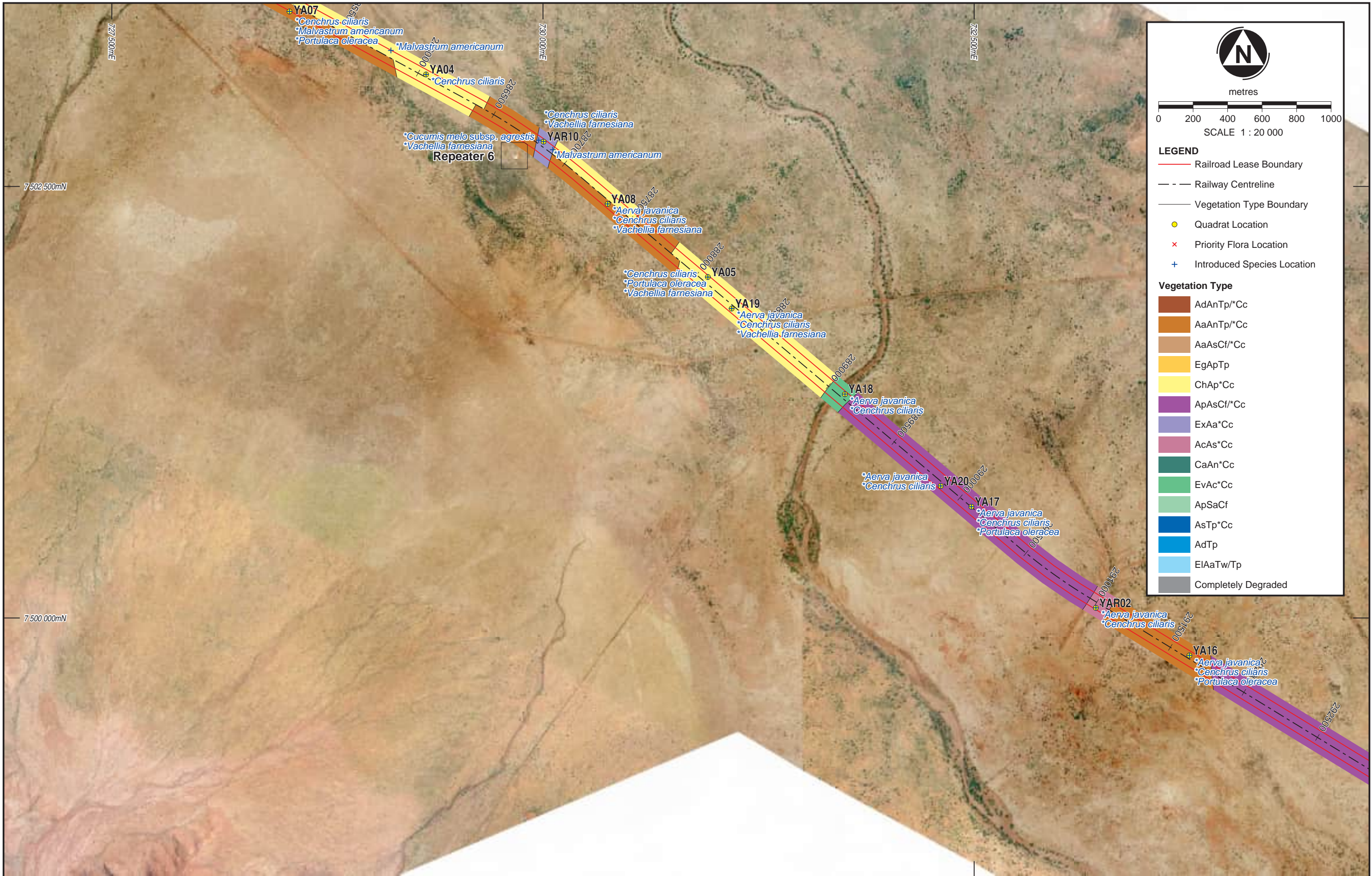




- LEGEND**
- Railroad Lease Boundary
  - - - Railway Centreline
  - Vegetation Type Boundary
  - Quadrat Location
  - × Priority Flora Location
  - + Introduced Species Location

- Vegetation Type**
- AdAnTp/\*Cc
  - AaAnTp/\*Cc
  - AaAsCf/\*Cc
  - EgApTp
  - ChAp\*Cc
  - ApAsCf/\*Cc
  - ExAa\*Cc
  - AcAs\*Cc
  - CaAn\*Cc
  - EvAc\*Cc
  - ApSaCf
  - AsTp\*Cc
  - AdTp
  - EIaATw/Tp
  - Completely Degraded

08-165-veg-f03sh01.dgn  
 DATUM: MGA50  
 DRAWN: CR 24-07-08  
 AUTHOR: TE 24-07-08





  
 metres  
  
 SCALE 1 : 20 000

**LEGEND**

- Railroad Lease Boundary
- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

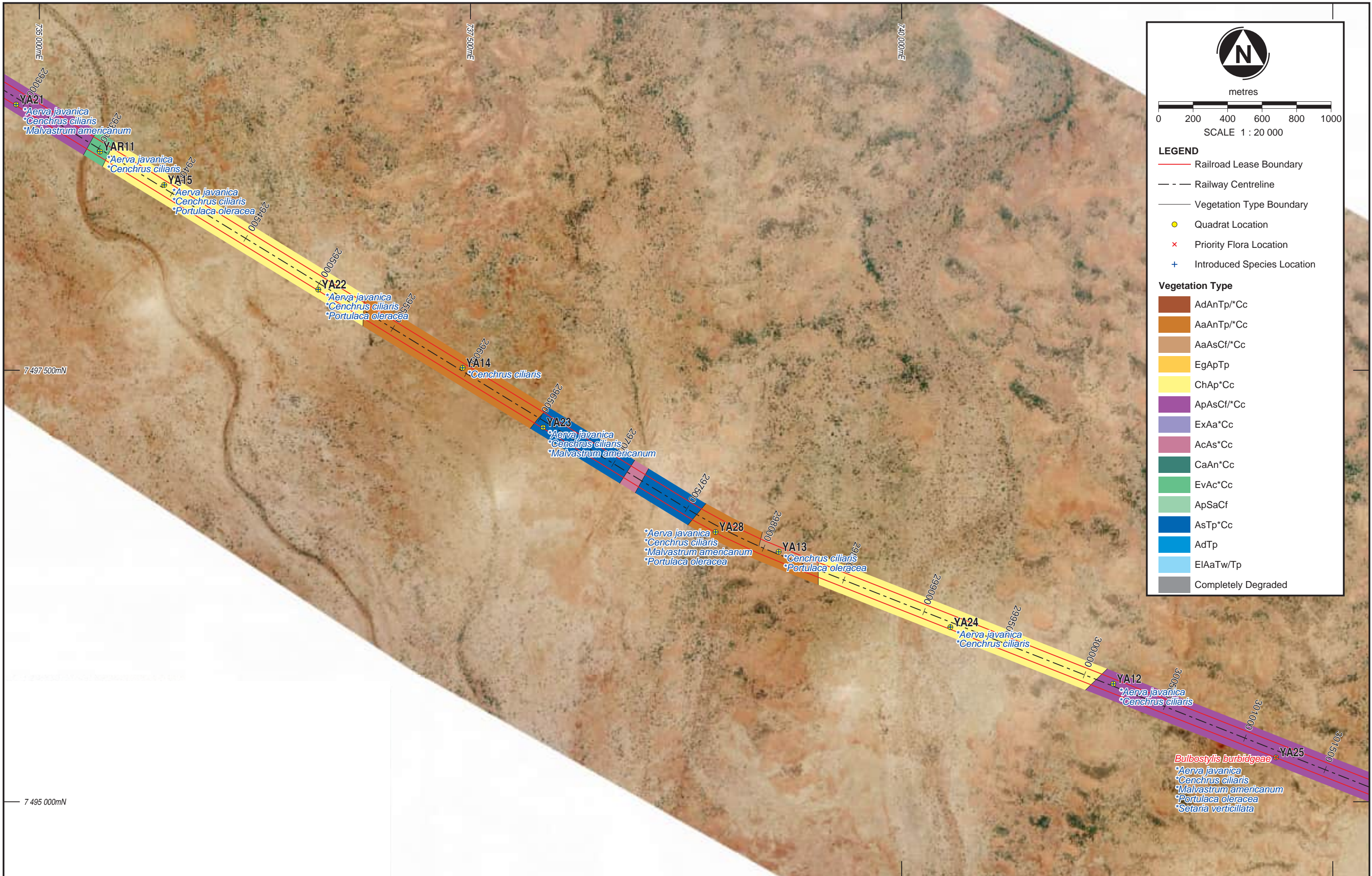
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- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- ElAaTw/Tp
- Completely Degraded

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 AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
**RAILWAY RESERVE VEGETATION ASSESSMENT**  
**Vegetation Communities Map and Locations of Quadrats**  
**and Flora of Conservation Significance**  
 FIGURE 3 - SHEET 2



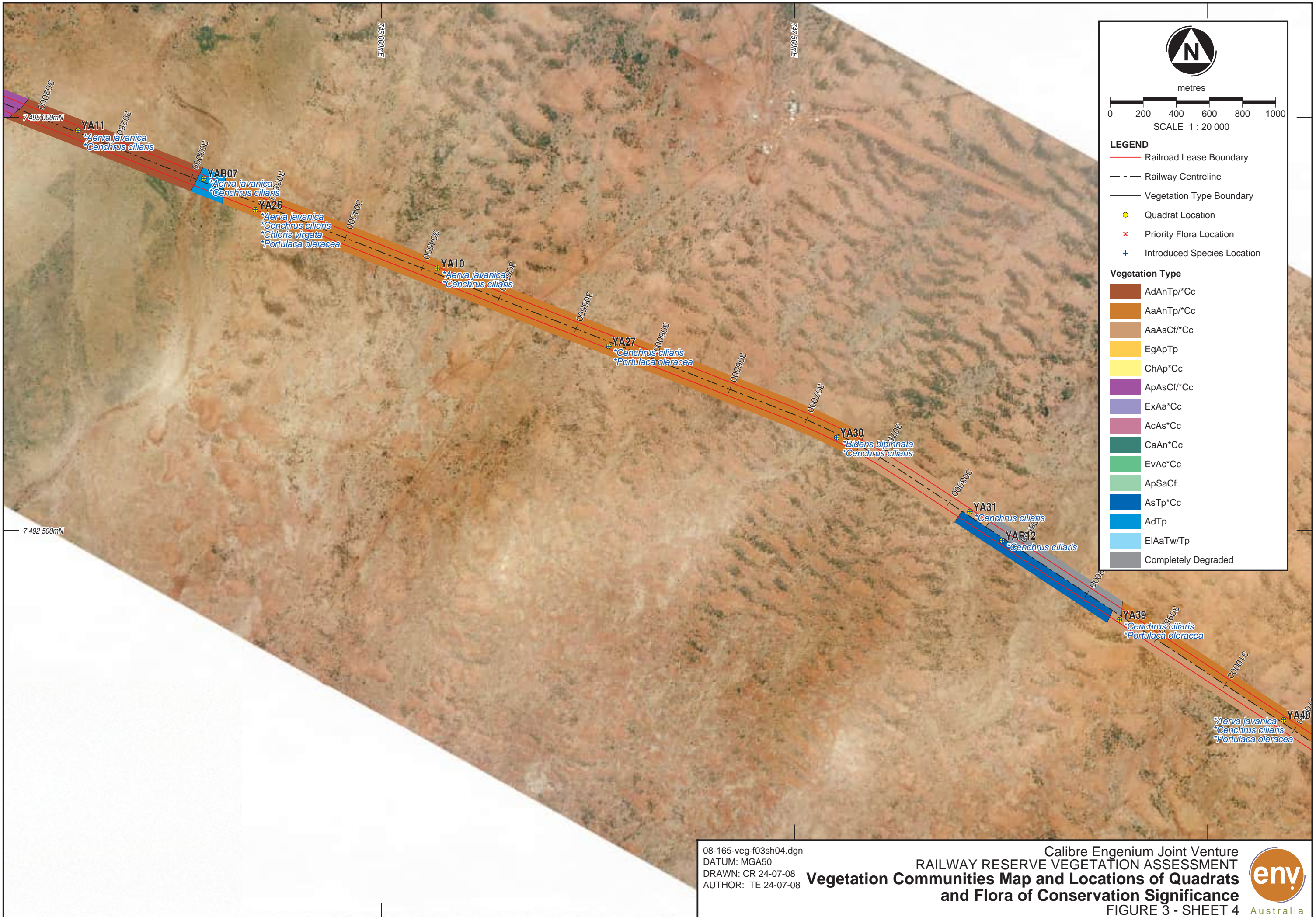




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7 495 000mN



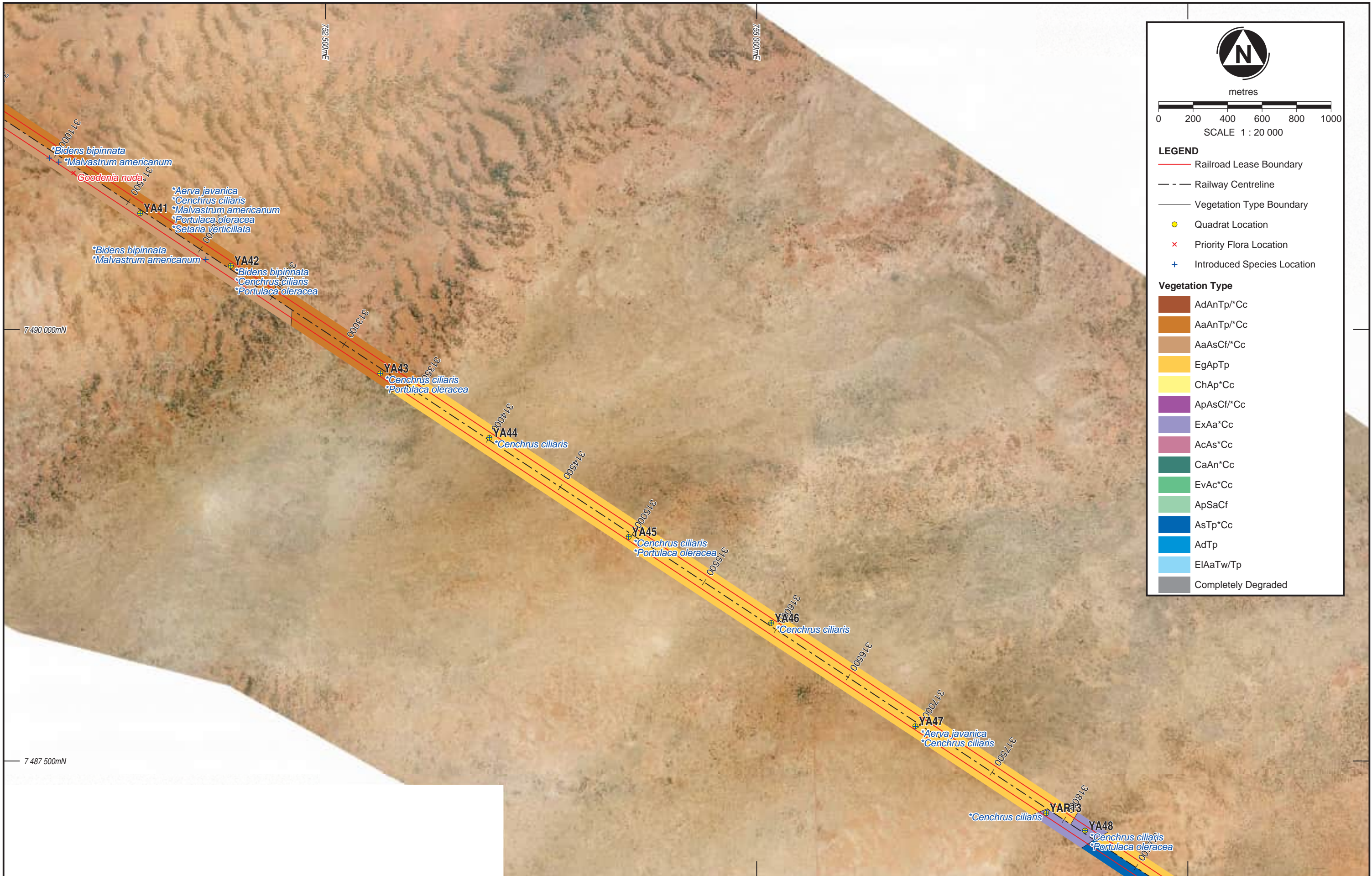


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 AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
 RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
 and Flora of Conservation Significance**  
 FIGURE 3 - SHEET 4







N

metres

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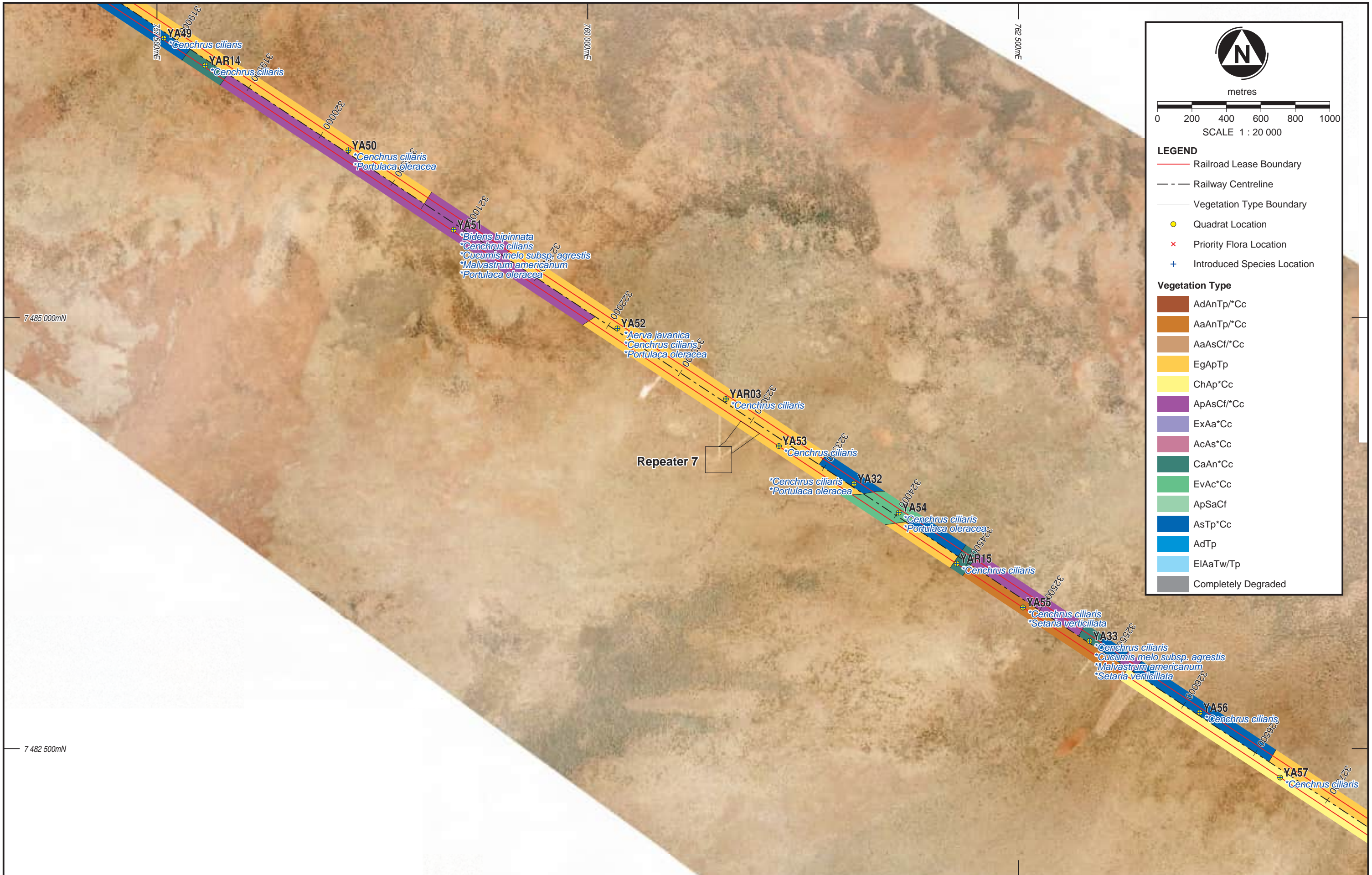
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- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

- AdAnTp/\*Cc
- AaAnTp/\*Cc
- AaAsCf/\*Cc
- EgApTp
- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- EIaATw/Tp
- Completely Degraded





7 485 000mN

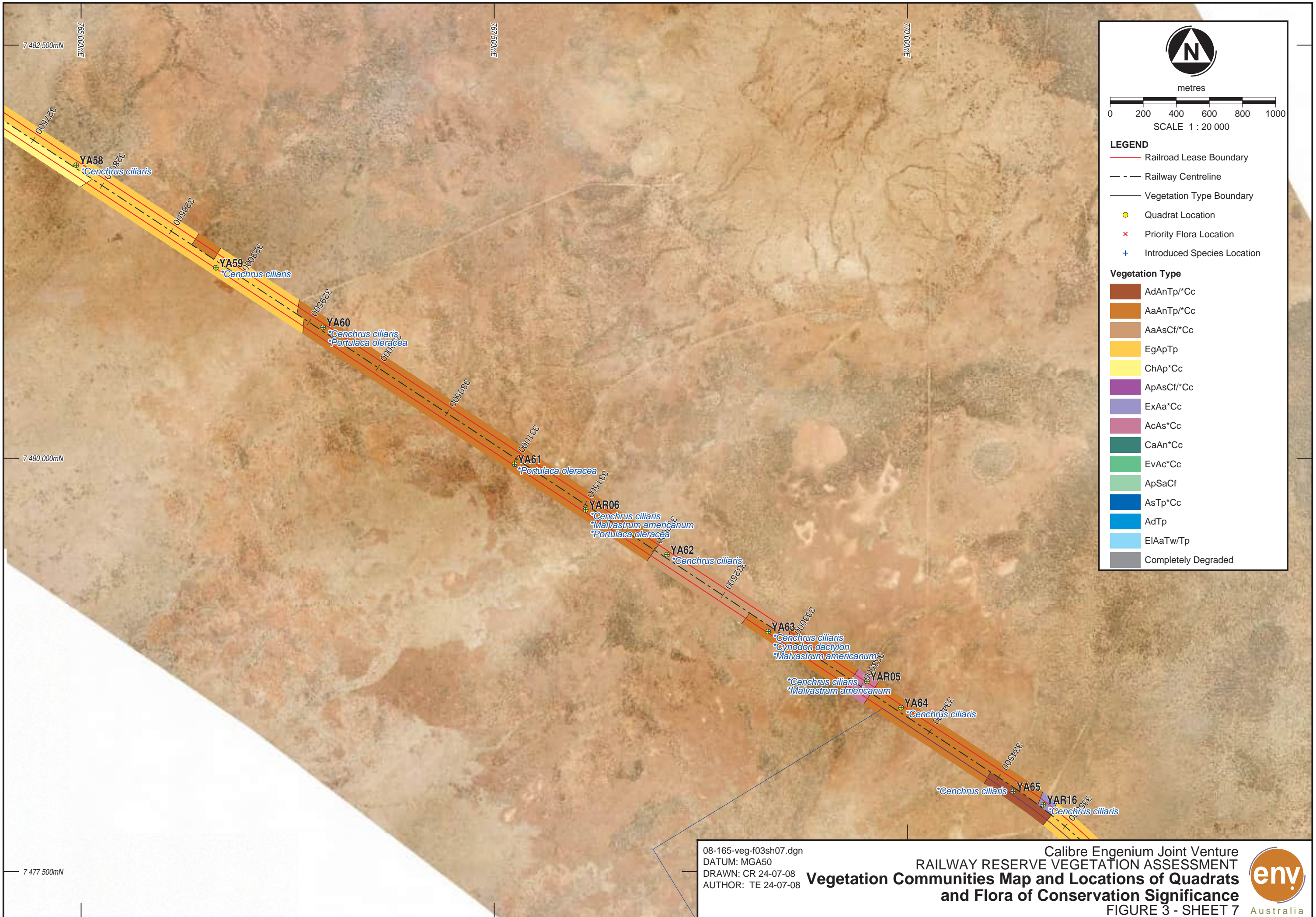
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 AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
 RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
 and Flora of Conservation Significance**  
 FIGURE 3 - SHEET 6







N

metres

0 200 400 600 800 1000

SCALE 1 : 20 000

**LEGEND**

- Railroad Lease Boundary
- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

- AdAnTp/\*Cc
- AaAnTp/\*Cc
- AaAsCf/\*Cc
- EgApTp
- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- EIAaTw/Tp
- Completely Degraded

08-165-veg-f03sh07.dgn  
 DATUM: MGA50  
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 AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
 RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
 and Flora of Conservation Significance**  
 FIGURE 3 - SHEET 7



7 477 500mN

7 482 000mN

7 482 500mN

765 000mE

767 500mE

770 000mE

327 500

328 500

329 500

330 500

331 000

331 500

332 500

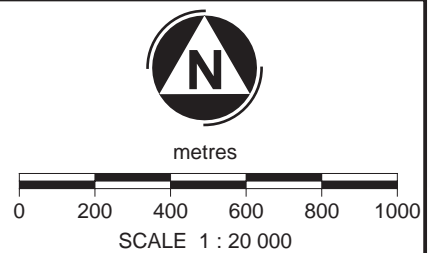
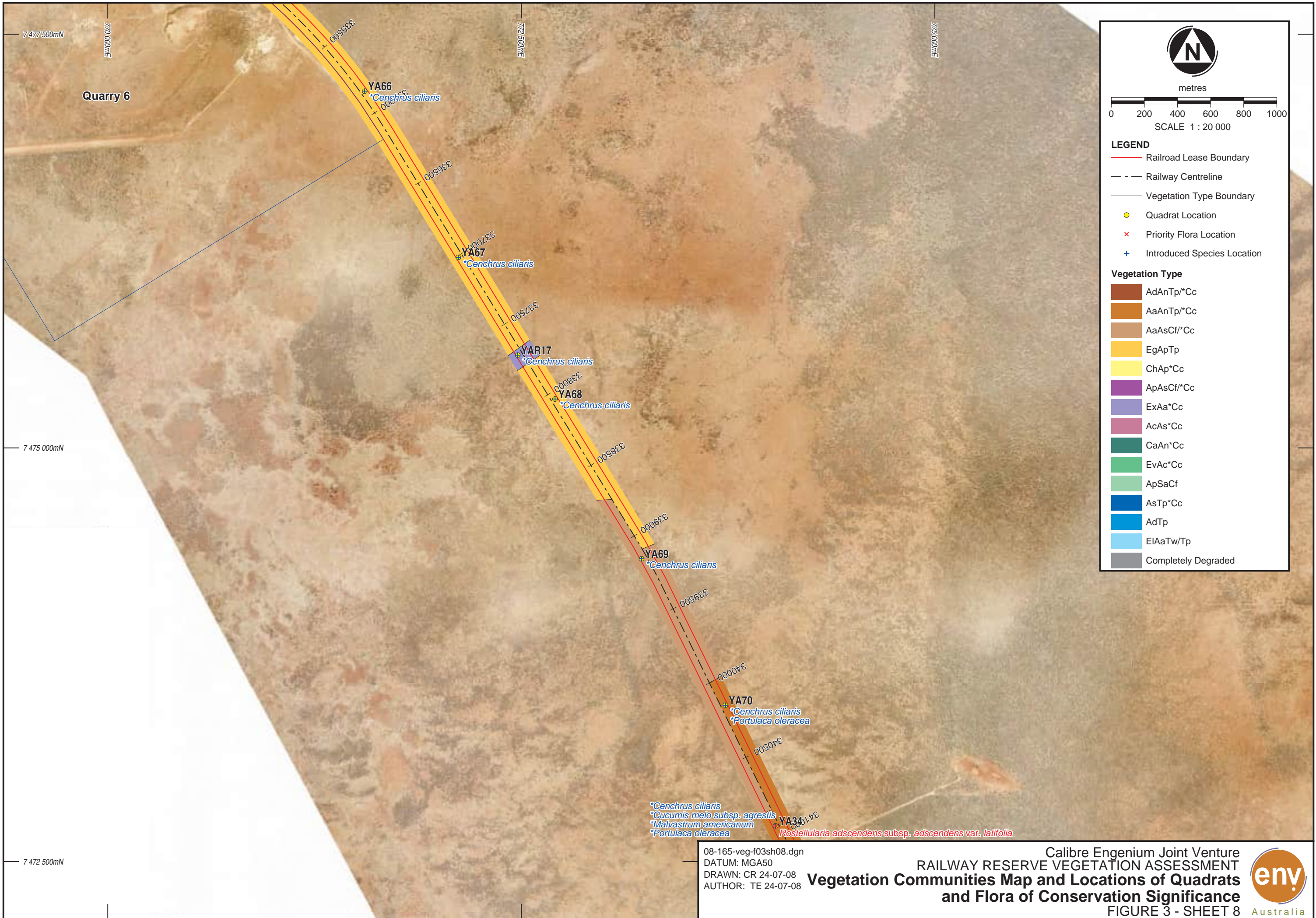
333 000

334 500

335 500

336 500





- LEGEND**
- Railroad Lease Boundary
  - - - Railway Centreline
  - Vegetation Type Boundary
  - Quadrat Location
  - × Priority Flora Location
  - + Introduced Species Location

- Vegetation Type**
- AdAnTp/\*Cc
  - AaAnTp/\*Cc
  - AaAsCf/\*Cc
  - EgApTp
  - ChAp\*Cc
  - ApAsCf/\*Cc
  - ExAa\*Cc
  - AcAs\*Cc
  - CaAn\*Cc
  - EvAc\*Cc
  - ApSaCf
  - AsTp\*Cc
  - AdTp
  - ElAaTw/Tp
  - Completely Degraded

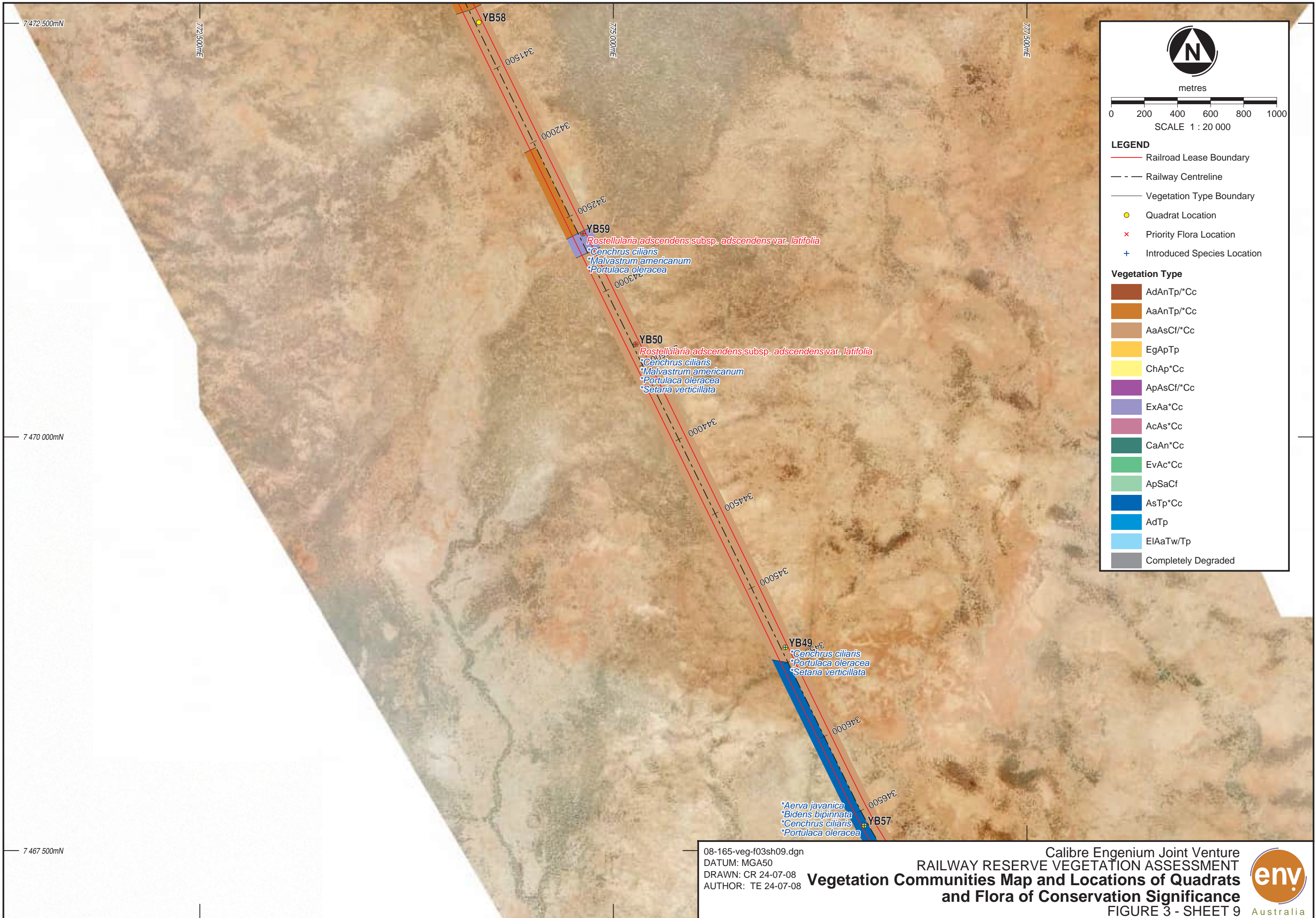
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770 000mE  
7475 000mN  
7472 500mN

08-165-veg-f03sh08.dgn  
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AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
and Flora of Conservation Significance**  
FIGURE 3 - SHEET 8







metres

0 200 400 600 800 1000

SCALE 1 : 20 000

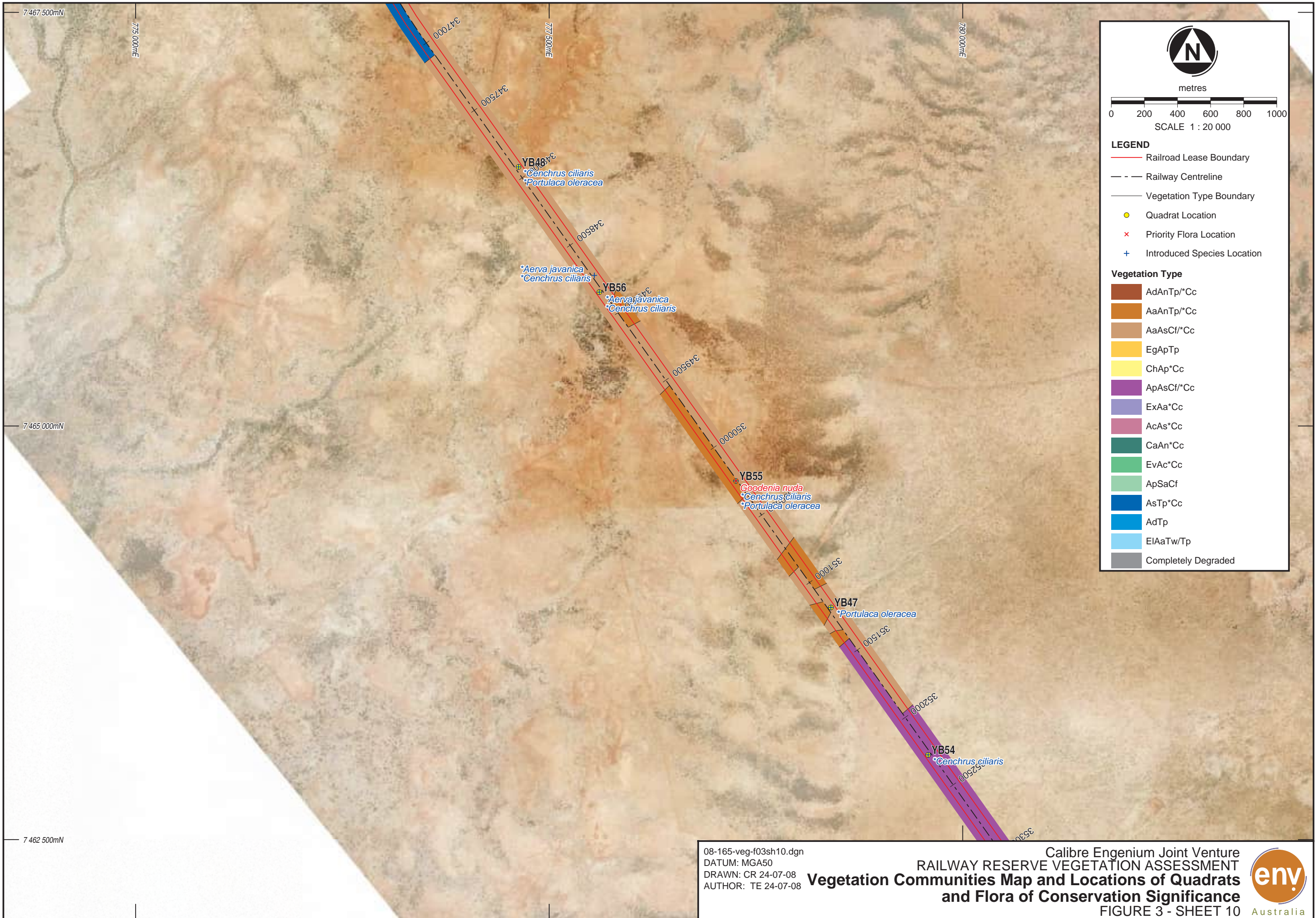
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- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

- AdAnTp/\*Cc
- AaAnTp/\*Cc
- AaAsCf/\*Cc
- EgApTp
- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- EIAaTw/Tp
- Completely Degraded



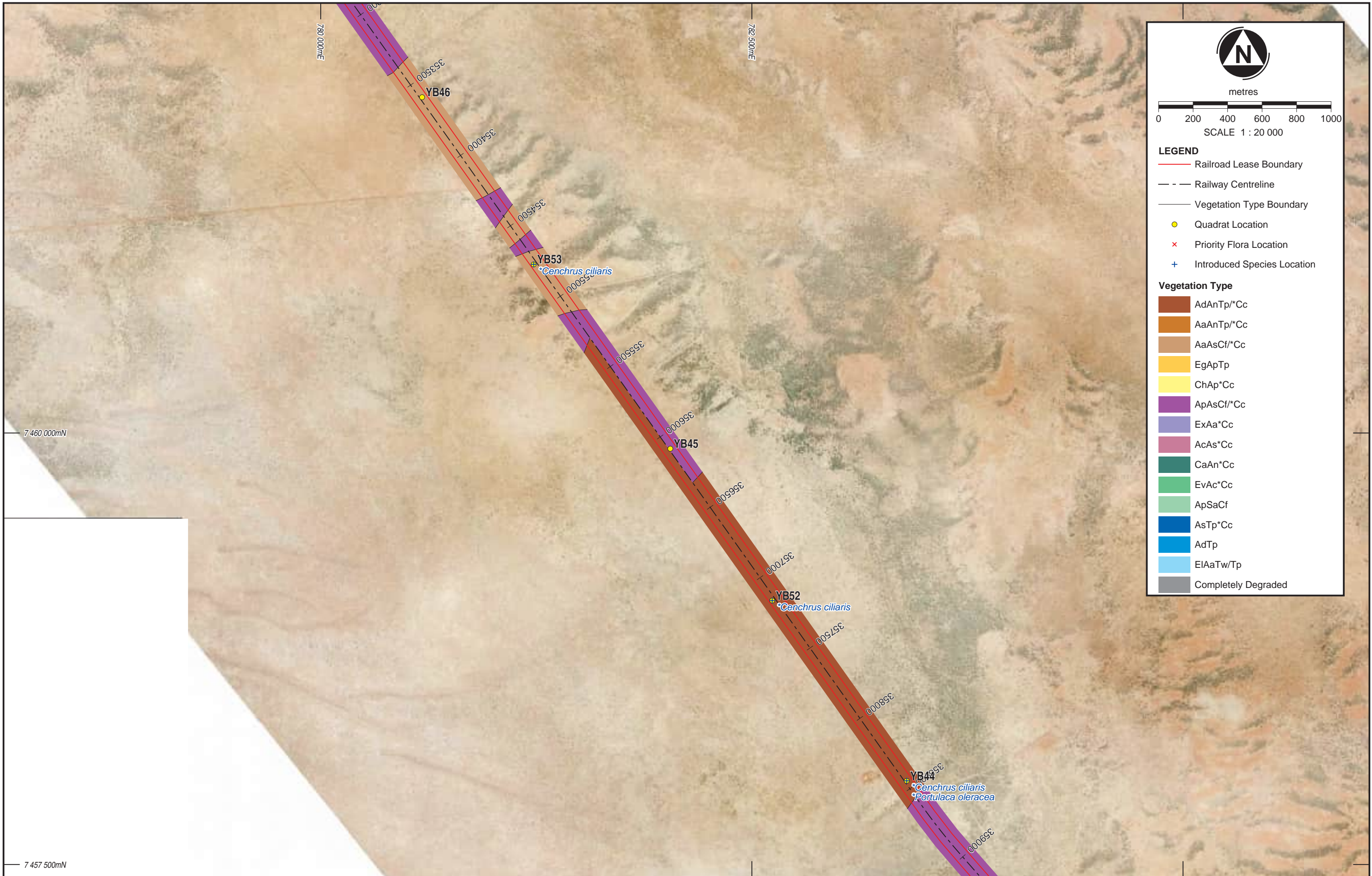



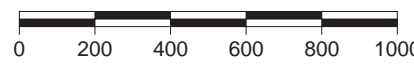
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Calibre Engenium Joint Venture  
 RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
 and Flora of Conservation Significance**  
 FIGURE 3 - SHEET 10







  
 metres  
  
 SCALE 1 : 20 000

**LEGEND**

- Railroad Lease Boundary
- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

- AdAnTp/\*Cc
- AaAnTp/\*Cc
- AaAsCf/\*Cc
- EgApTp
- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- ElAaTw/Tp
- Completely Degraded

7 460 000mN

7 457 500mN

730 000mE

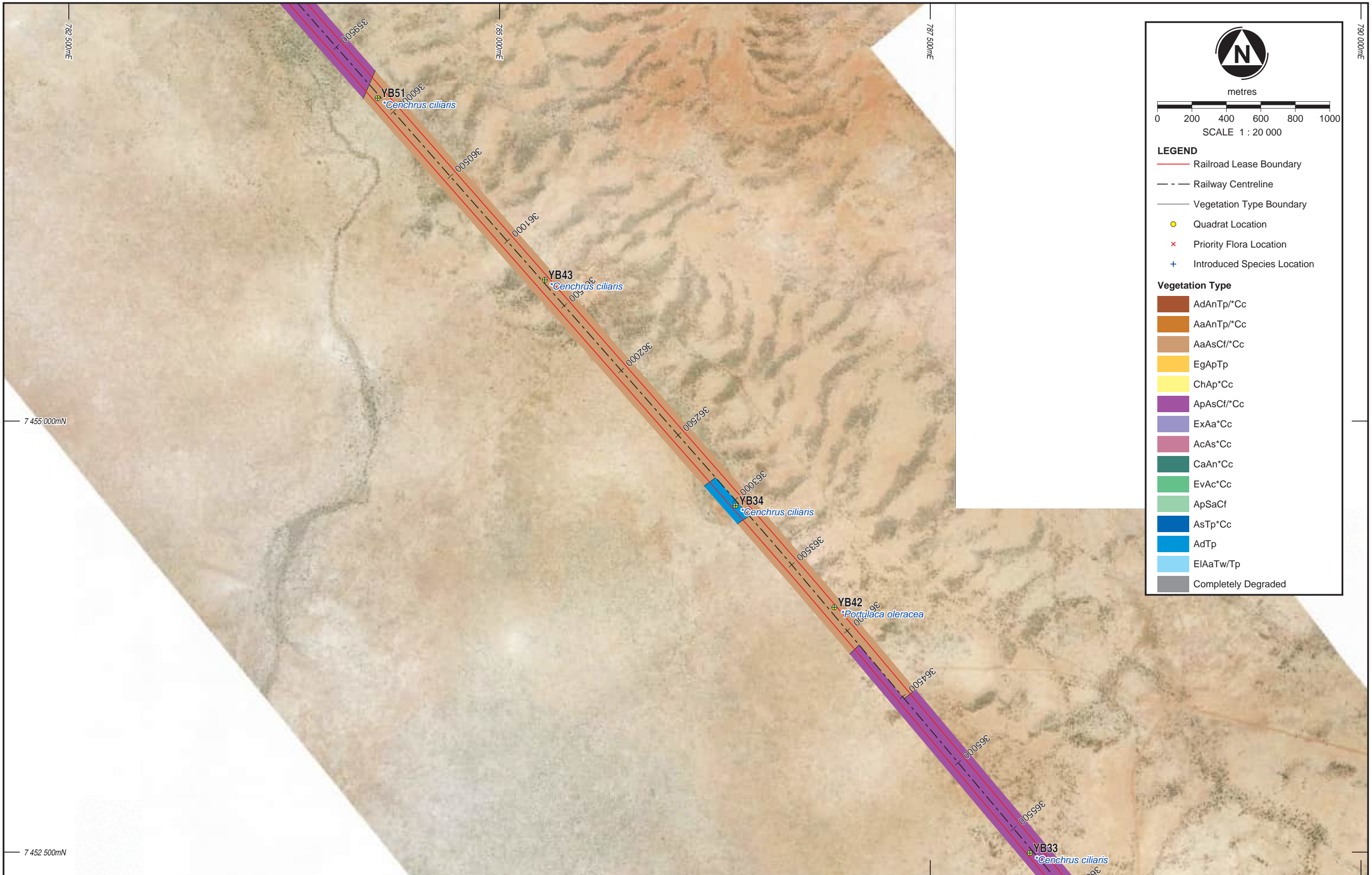
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Calibre Engenium Joint Venture  
 RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
 and Flora of Conservation Significance**  
 FIGURE 3 - SHEET 11







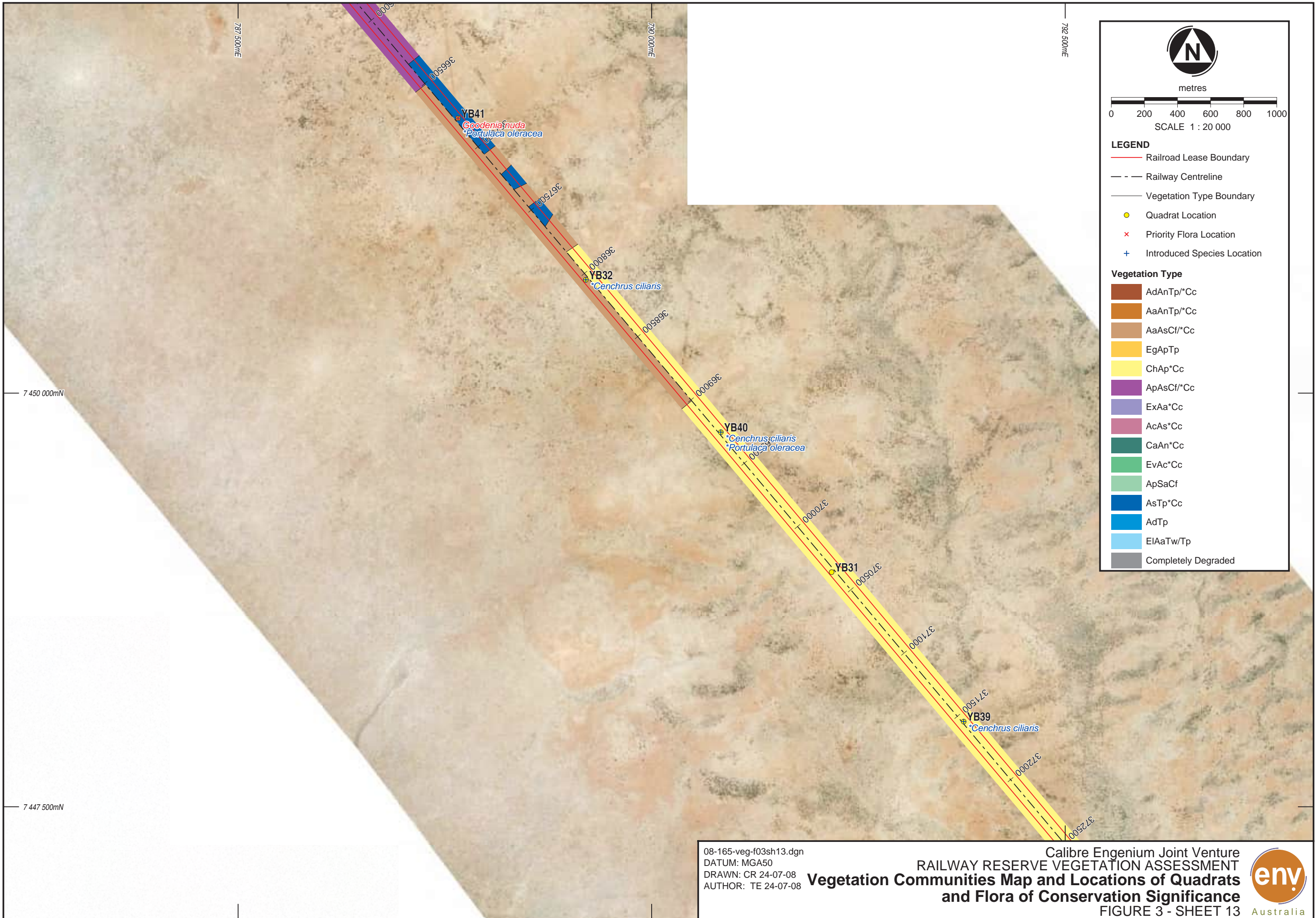
**LEGEND**

- Railroad Lease Boundary
- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

- AdAnTp/\*Cc
- AaAnTp/\*Cc
- AaAsCf/\*Cc
- EgApTp
- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- ElAaTw/Tp
- Completely Degraded





7 450 000mN

7 447 500mN

787 500mE

790 000mE

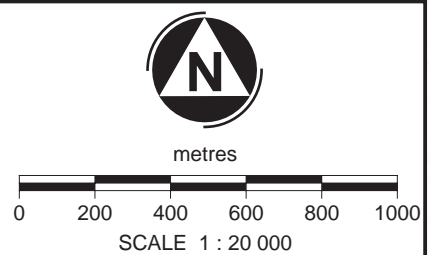
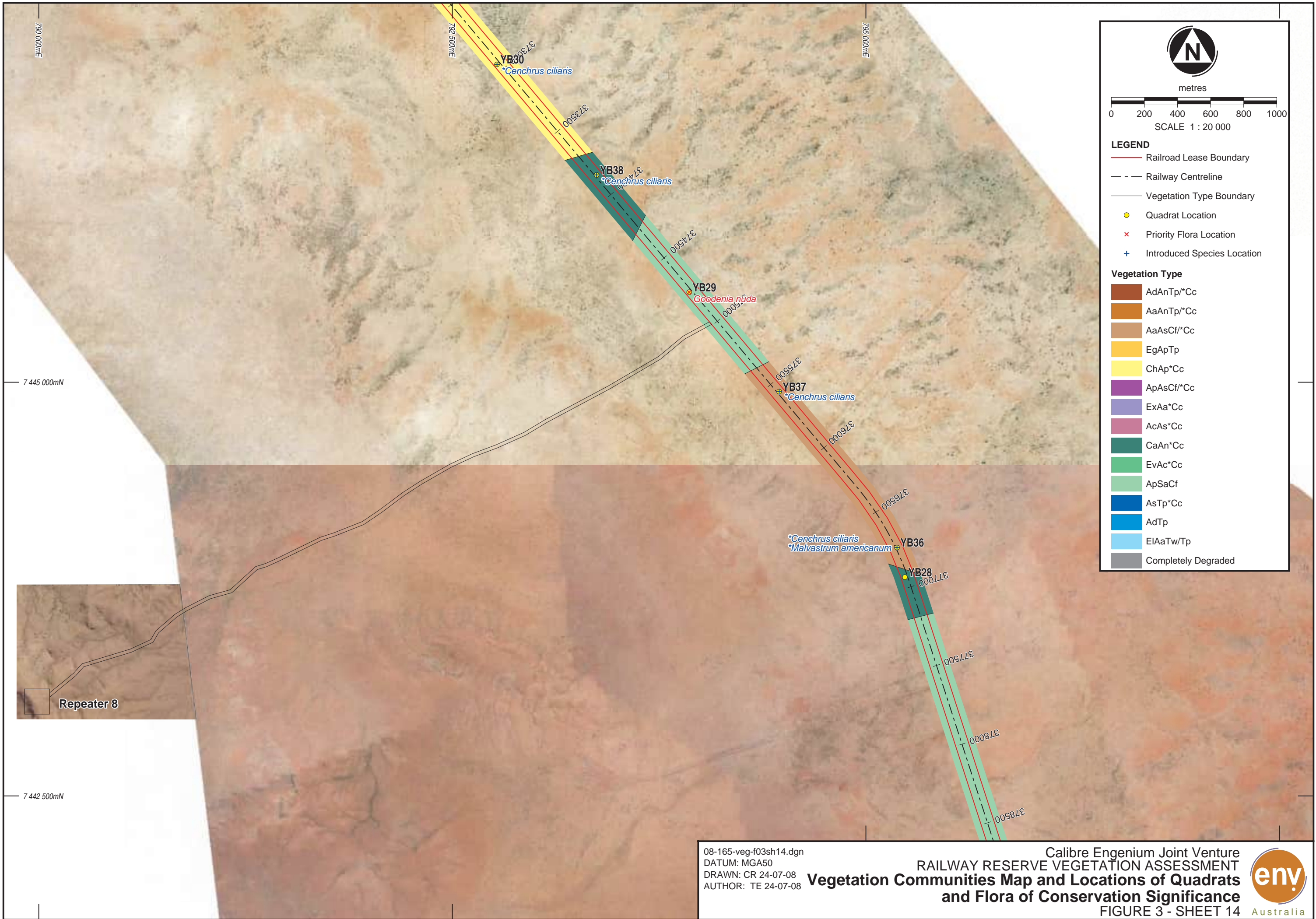
792 500mE

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AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
and Flora of Conservation Significance**  
FIGURE 3 - SHEET 13





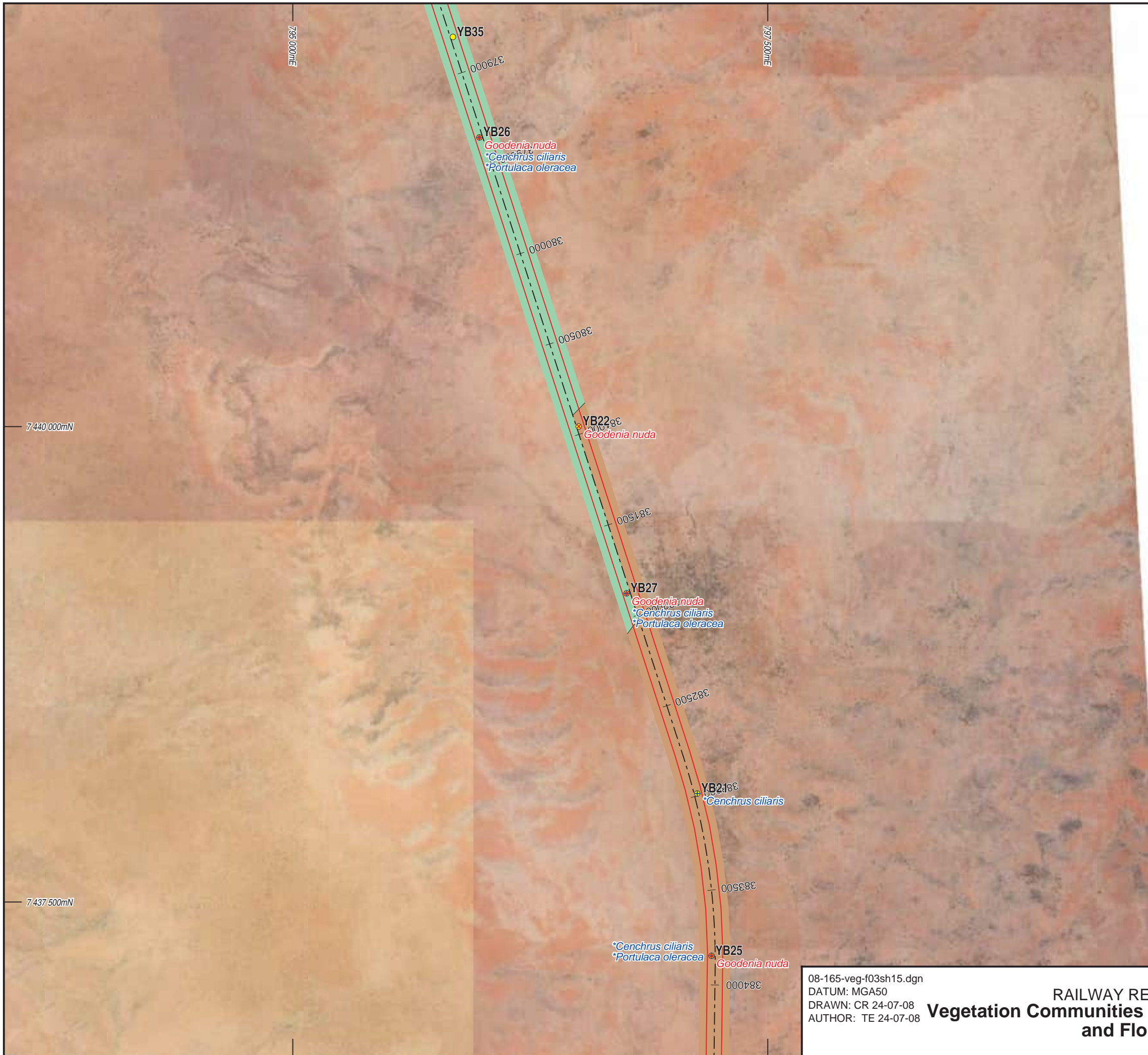


- LEGEND**
- Railroad Lease Boundary
  - - - Railway Centreline
  - Vegetation Type Boundary
  - Quadrat Location
  - × Priority Flora Location
  - + Introduced Species Location

- Vegetation Type**
- AdAnTp/\*Cc
  - AaAnTp/\*Cc
  - AaAsCf/\*Cc
  - EgApTp
  - ChAp\*Cc
  - ApAsCf/\*Cc
  - ExAa\*Cc
  - AcAs\*Cc
  - CaAn\*Cc
  - EvAc\*Cc
  - ApSaCf
  - AsTp\*Cc
  - AdTp
  - EIAaTw/Tp
  - Completely Degraded







N

metres

0 200 400 600 800 1000

SCALE 1 : 20 000

**LEGEND**

- Railroad Lease Boundary
- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

- AdAnTp/\*Cc
- AaAnTp/\*Cc
- AaAsCf/\*Cc
- EgApTp
- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- EIAaTw/Tp
- Completely Degraded

\*Cenchrus ciliaris  
\*Portulaca oleracea

YB25  
Goodenia nuda

YB21  
Cenchrus ciliaris

YB27  
Goodenia nuda  
Cenchrus ciliaris  
Portulaca oleracea

YB22  
Goodenia nuda

YB26  
Goodenia nuda  
Cenchrus ciliaris  
Portulaca oleracea

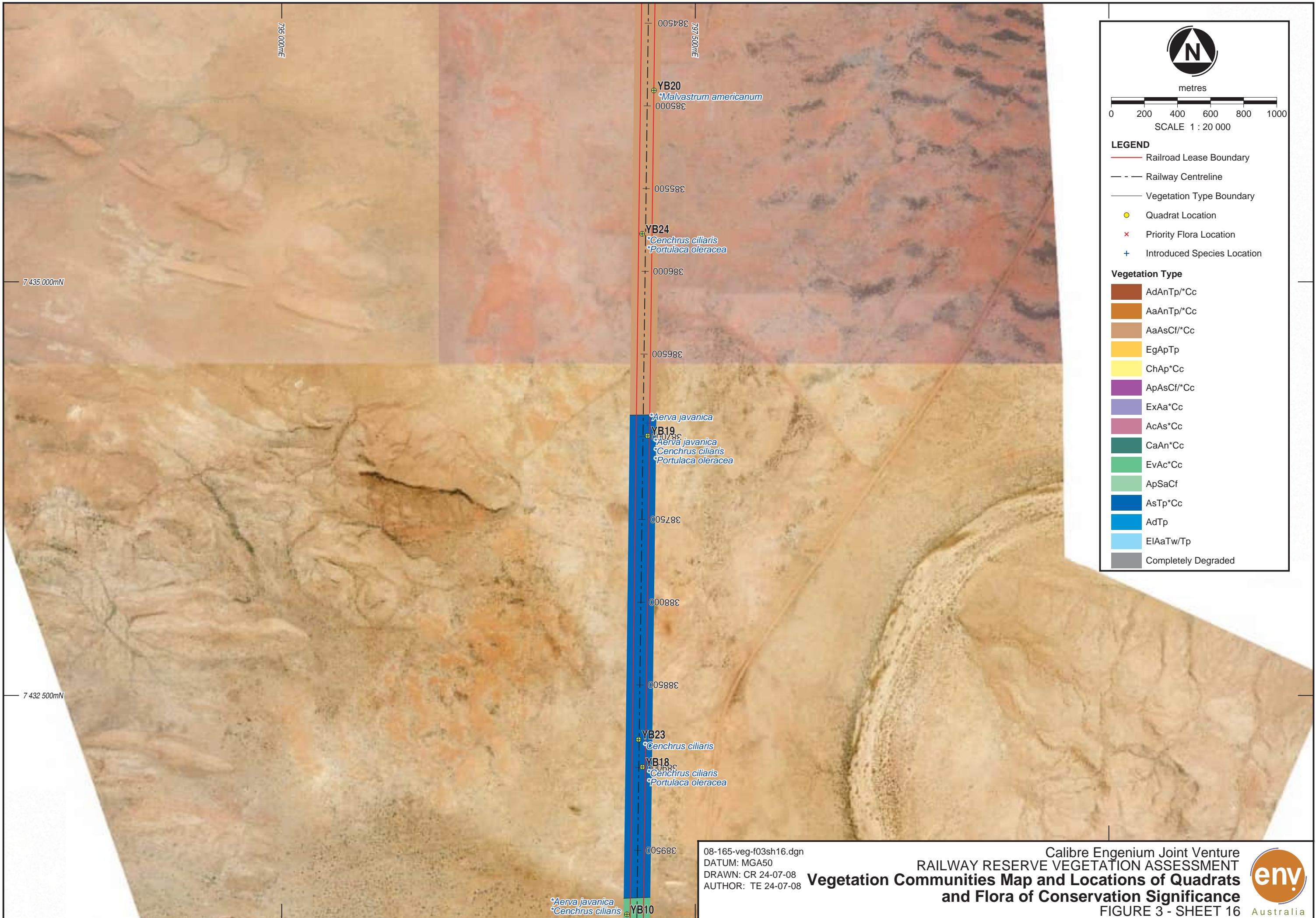
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AUTHOR: TE 24-07-08

Calibre Engenium Joint Venture  
RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
and Flora of Conservation Significance**  
FIGURE 3 - SHEET 15





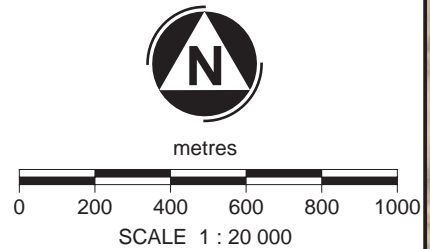
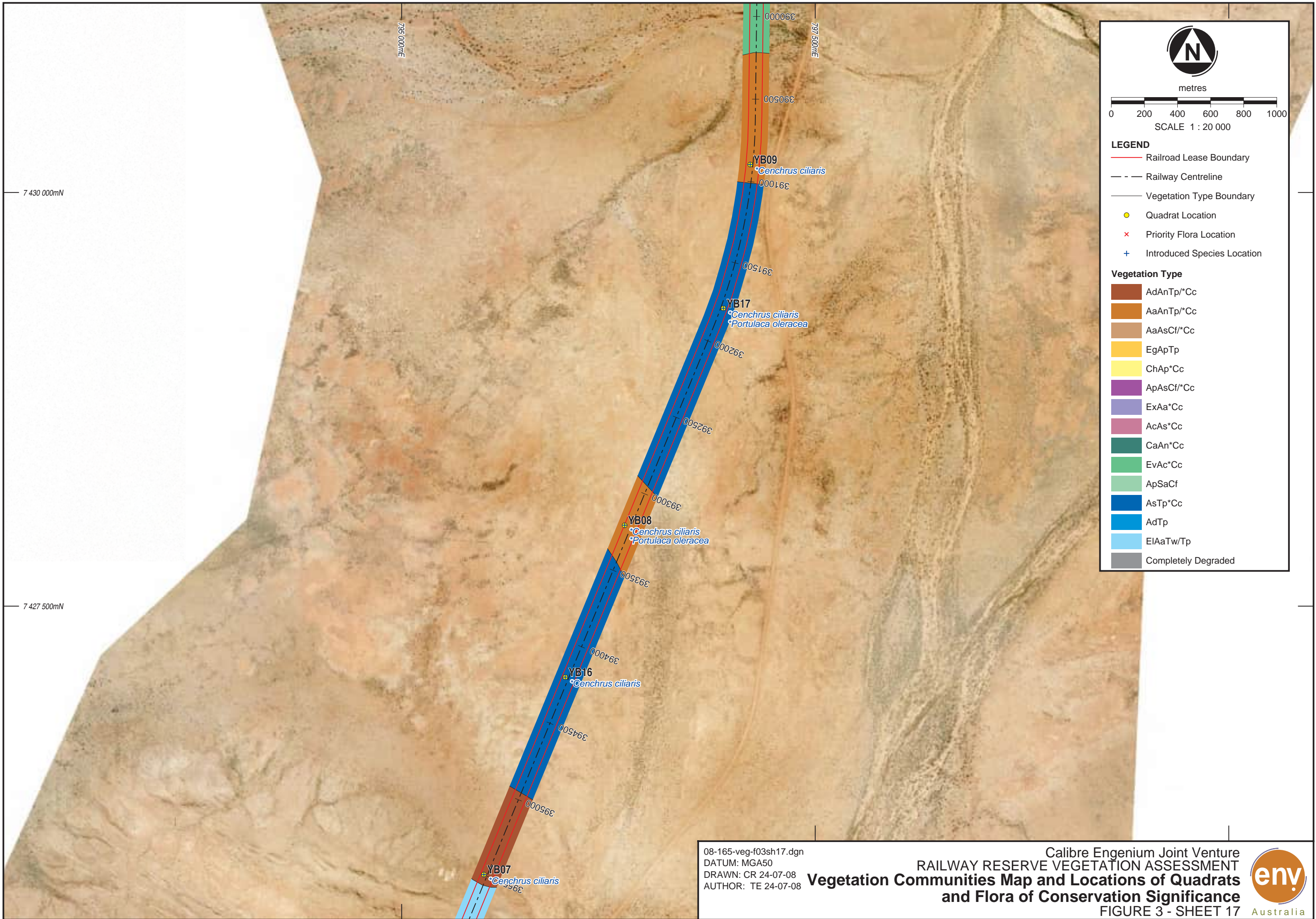


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Calibre Engenium Joint Venture  
 RAILWAY RESERVE VEGETATION ASSESSMENT  
**Vegetation Communities Map and Locations of Quadrats  
 and Flora of Conservation Significance**  
 FIGURE 3 - SHEET 16



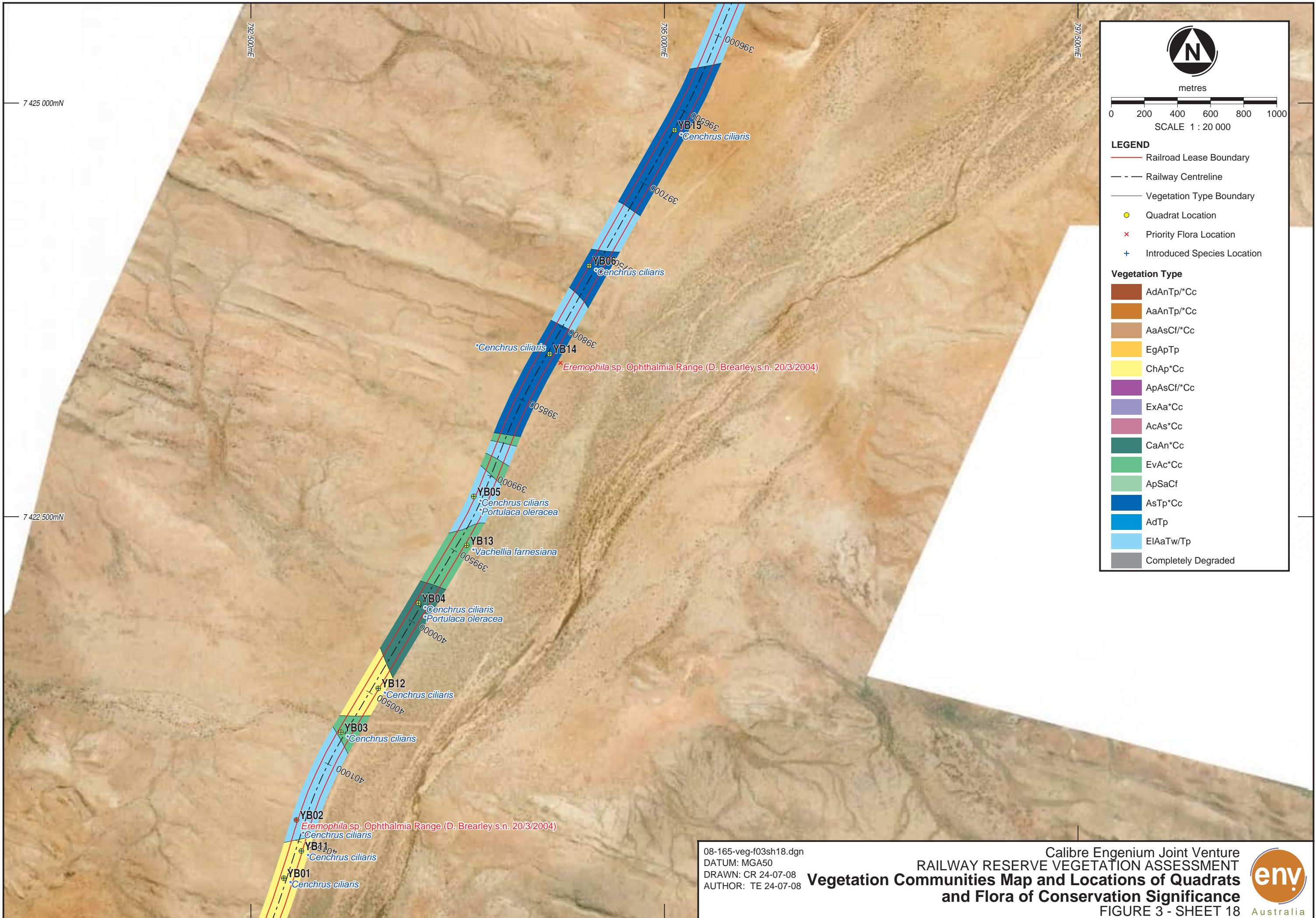




- LEGEND**
- Railroad Lease Boundary
  - - - Railway Centreline
  - Vegetation Type Boundary
  - Quadrat Location
  - × Priority Flora Location
  - + Introduced Species Location

- Vegetation Type**
- AdAnTp/\*Cc
  - AaAnTp/\*Cc
  - AaAsCf/\*Cc
  - EgApTp
  - ChAp\*Cc
  - ApAsCf/\*Cc
  - ExAa\*Cc
  - AcAs\*Cc
  - CaAn\*Cc
  - EvAc\*Cc
  - ApSaCf
  - AsTp\*Cc
  - AdTp
  - EI AaTw/Tp
  - Completely Degraded





N

metres

0 200 400 600 800 1000

SCALE 1 : 20 000

**LEGEND**

- Railroad Lease Boundary
- - - Railway Centreline
- Vegetation Type Boundary
- Quadrat Location
- × Priority Flora Location
- + Introduced Species Location

**Vegetation Type**

- AdAnTp/\*Cc
- AaAnTp/\*Cc
- AaAsCf/\*Cc
- EgApTp
- ChAp\*Cc
- ApAsCf/\*Cc
- ExAa\*Cc
- AcAs\*Cc
- CaAn\*Cc
- EvAc\*Cc
- ApSaCf
- AsTp\*Cc
- AdTp
- EIaATw/Tp
- Completely Degraded

**APPENDIX A**

**DEFINITION OF RARE AND PRIORITY  
FLORA SPECIES, CATEGORIES OF  
THREATENED FLORA SPECIES AND  
SIGNIFICANT FLORA SPECIES  
POTENTIALLY OCCURRING IN THE  
PROJECT AREA**

## JIMBLEBAR TO YANDI CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX A

The EPBC Act prescribes seven matters of national environmental significance: World Heritage properties; National Heritage places; Wetlands of international importance; Threatened species and ecological communities; Migratory species; Commonwealth marine areas; Nuclear actions (including uranium mining). Species in the categories ExW, CE, E and V (see below), and Threatened Ecological Communities in the CE and E categories are protected as matters of national environmental significance under the EPBC Act.

#### Appendix A1 - Definition of Rare and Priority Flora Species (Department of Environment and Conservation 2008)

Conservation Code	Category
R	<p><b>Declared Rare Flora - Extant Taxa</b></p> <p>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.</p>
X	<p><b>Declared Rare Flora - Presumed Extinct Taxa</b></p> <p>Taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such.</p>
P1	<p><b>Priority One - Poorly Known Taxa</b></p> <p>Taxa which are known from one or a few (generally &lt;5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.</p>
P2	<p><b>Priority Two - Poorly Known Taxa</b></p> <p>Taxa which are known from one or a few (generally &lt;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.</p>
P3	<p><b>Priority Three - Poorly Known Taxa</b></p> <p>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 &gt;5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but are in need of further survey.</p>

<b>Conservation Code</b>	<b>Category</b>
<b>P4</b>	<p><b>Priority Four - Rare Taxa</b></p> <p>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.</p>

**Appendix A2 - Categories of Threatened Flora Species  
(Environmental Protection and Biodiversity Conservation Act 1999)**

<b>Category Code</b>	<b>Category</b>
<b>Ex</b>	<p><b>Extinct</b></p> <p>Taxa which at a particular time if, at the time, there is no reasonable doubt that the last member of the species has died.</p>
<b>ExW</b>	<p><b>Extinct in the Wild</b></p> <p>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.</p>
<b>CE</b>	<p><b>Critically Endangered</b></p> <p>Taxa which at a particular 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.</p>
<b>E</b>	<p><b>Endangered</b></p> <p>Taxa which is not critically endangered and it is facing a very high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.</p>
<b>V</b>	<p><b>Vulnerable</b></p> <p>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.</p>
<b>CD</b>	<p><b>Conservation Dependent</b></p> <p>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.</p>



### Appendix A3 - Significant Flora Species Potentially Occurring within the Project Area

Species	Code	Description
<i>Lepidium catapycnon</i>	DRF & Vulnerable	Woody perennial herb or shrub to 0.3m high. Found on skeletal soils on hillsides.
<i>Thryptomene wittweri</i>	DRF & Vulnerable	Spreading shrub to 1.5m high Found on skeletal red stony soils on breakaways and stony creek beds.
<i>Amaranthus</i> sp. Todd River (G. Chippendale 482)	P1	No description available.
<i>Brachyscome</i> sp. Wanna Munna Flats (S. van Leeuwen 4662)	P1	No description available.
<i>Brunonia</i> sp. Long hairs (D.E. Symon 2440)	P1	Erect herb, to 0.07m high, with long spreading hairs on the leaves; spike to 0.3 m high. Found along creeklines.
<i>Eremophila pilosa</i>	P1	Shrub, grows to approximately 0.8 m high.
<i>Eremophila</i> sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)	P1	No description available.
<i>Eremophila spongiorarpa</i>	P1	Rounded shrub to 0.4m. Found on brown gritty skeletal soils over ironstone on hill summits.
<i>Goodenia lyrata</i>	P1	Prostrate herb. Found on red sandy loam soils and near claypans.
<i>Goodenia</i> sp. East Pilbara (AA Mitchell PRP 727)	P1	Open, erect annual or biennial herb to 0.2 m high. Found on red-brown clay soil with calcrete pebbles and on low undulating plains and swampy plains.
<i>Goodenia</i> sp. Pilbara calcrete (A.A. Mitchell PRP 1436)	P1	No description available.
<i>Myriocephalus nudus</i>	P1	Annual herb to 0.2m. Found on moist areas along rivers, creeks, and granite outcrops.
<i>Myriocephalus scalpellus</i>	P1	Semi-erect herb, 0.03–0.08 m high. Found in clay and depressions on flood plains.
<i>Tetradlea fordiana</i>	P1	Shrub to herb. Found on shale, associated with ironstone outcrops.
<i>Acacia effusa</i>	P2	Low spreading shrub to 1m; with 'minni-ritchi' type bark. Found on stoney red loam on scree slopes of low ranges.
<i>Gonocarpus ephemerus</i>	P2	Procumbent annual or perennial, herb, 0.07 to 0.5m high. Found in sandy soils and along drainage lines.
<i>Olearia fluvialis</i>	P2	Shrub to 0.6m high. Found on iron rich alluvium and pebbly sand in stony creek beds.
<i>Olearia mucronata</i>	P2	Densely branched, unpleasantly aromatic shrub, 0.6–1 m high. Fl. white, yellow, Aug–Jan. Schistose hills, along drainage channels.
<i>Spartothamnella puberula</i>	P2	Shrub to 1.5m high. Found on clay, rocky loam, sandy and skeletal soils on sandplains and hills.
<i>Acacia bromilowiana</i>	P3	Shrub to tree to 12 m high. Found on red skeletal stony loam, orange-brown

Species	Code	Description
		pebbly, gravel loam, laterite, banded ironstone, basalt. Found on rocky hills, breakaways, scree slopes, gorges, creek beds.
<i>Acacia subtiliformis</i>	P3	Spindly, slender, erect shrub to 3.5 m high Found on rocky calcrete plateau.
<i>Bulbine pendula</i>	P3	Succulent annual herb to 0.1m high. Found on cracking clay plans, tussock grassland and along track margins.
<i>Cynanchum</i> sp. Hamersley (M Trudgen 2302)	P3	Climber. Found on red sandy soils amongst rocky and swampy areas.
<i>Dampiera metallorum</i>	P3	Perennial herb to 0.5m high. Found on skeletal red-brown gravelly soils over banded ironstone. On steep slopes and hill summits.
<i>Eremophila caespitosa</i>	P3	Low compact or spreading shrub, 0.1–0.3 m high, to 0.5 m wide. Found in stony open flats.
<i>Eremophila magnifica</i> subsp. <i>velutina</i>	P3	Shrub 0.5-1.5m high. Found on skeletal soils over ironstone on hill summits.
<i>Fimbristylis sieberiana</i>	P3	Shortly rhizomatous, tufted perennial, grass-like or herb (sedge), 0.25–0.6 m high. Found in mud, skeletal soil pockets, pool edges and sandstone cliffs.
<i>Goodenia nuda</i>	P3	Erect to ascending herb, to 0.5 m high.
<i>Hibiscus brachysiphonius</i>	P3	Perennial herb-shrub to 0.3m high. Found on clayey soils in creeklines and clay flats.
<i>Indigofera gilesii</i> subsp. <i>gilesii</i>	P3	Shrub to 1.5m high. Found amongst boulders and outcrops in pebbly loam soils.
<i>Prostanthera ferricola</i>	P3	Erect, openly-branched shrub, 0.3–1 m high. Found in shallow red-brown skeletal sandy loam on banded ironstone, laterite, basalt or quartz. Found on gently inclined mid to upper slopes of hills, rocky crests, outcrops.
<i>Tephrosia</i> sp. Cathedral Gorge (F.H. Mollemans 2420)	P3	Erect shrub 0.25m. Found on clay-sand and pebbles.
<i>Themeda</i> sp. Hamersley Station (ME Trudgen 11431)	P3	Tussocky perennial, grass-like or herb, 0.9–1.8 m high. Fl. Aug. Red clay. Clay pan, grass plain.
<i>Triodia</i> sp. Mt Ella (ME Trudgen 12739)	P3	Perennial grass to 0.4m high. Found on light orange/brown pebbly loam soil amongst rocks, outcrops, and gully slopes.
<i>Triumfetta leptacantha</i>	P3	Spreading shrub to 0.6m high. Found on stony red loam, amongst boulders and stony hill slopes.
<i>Eremophila magnifica</i> subsp. <i>magnifica</i>	P4	Shrub to 1m high. Found in red gritty soil over braded ironstone on hill summits.
<i>Eremophila youngii</i> subsp. <i>lepidota</i>	P4	Dense, spreading shrub, (0.2-)1-3 m high. Found in stony red sandy loam, flats plains, floodplains (sometimes semi-saline) and clay flats.



**APPENDIX B**

**DEFINITION OF INTRODUCED FLORA  
SPECIES AND INTRODUCED FLORA  
SPECIES POTENTIALLY OCCURRING  
IN THE PROJECT AREA**

## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### INTRODUCED FLORA SPECIES

#### APPENDIX B

##### Appendix B1 - Definition of Introduced Flora Species

The DEC's Environmental Weed Strategy for Western Australia ranks weeds in terms of their environmental impact on biodiversity using the criteria: invasiveness, distribution, and environmental impacts:

- ***Invasiveness*** - ability to invade bushland in good to excellent condition or ability to invade waterways.
- ***Distribution*** - wide current or potential distribution including consideration of known history of wide spread distribution elsewhere in the world.
- ***Environmental Impacts*** - ability to change the structure, composition and function of ecosystems. In particular an ability to form a monoculture in a vegetation community.

The rating of each weed is determined by the following scoring system:

- ***High*** - a weed species would have to score yes for all three criteria. Rating a weed species as high would indicate prioritising this weed for control and/or research i.e. prioritising funding to it.
- ***Moderate*** - a weed species would have to score yes for two of the above criteria. Rating a weed species as moderate would indicate that control or research effort should be directed to it if funds are available, however it should be monitored (possibly a reasonably high level of monitoring).
- ***Mild*** - a weed species scoring one of the criteria. A mild rating would indicate monitoring of the weed and control where appropriate.
- ***Low*** - a weed species would score none of the criteria. A low ranking would mean that this species would require a low level of monitoring.

Appendix B2 – Introduced Flora Species Potentially Occurring in the Project Area

Species	Rating	Description
* <i>Acetosa vesicaria</i>	High	Ruby dock Common on roadsides and in disturbed areas in the arid zone.
* <i>Aerva javanica</i>	High	Kapok Bush Has become a widespread weed of roadsides, creeklines and disturbed areas.
* <i>Cenchrus ciliaris</i>	High	Buffel grass Widely planted as a pastoral grass. Has become a widespread weed of roadsides, creeklines and most vegetation types in the Pilbara.
* <i>Cenchrus setiger</i>	High	Birdwood grass Weed of watercourses in the Pilbara and Kimberley.
* <i>Vachellia farnesiana</i>	High	Mimosa Bush Common in low-lying areas, river and creek banks and disturbed sites.
* <i>Cynodon dactylon</i>	Moderate	Couch grass Widely planted as a lawn grass.
* <i>Malvastrum americanum</i>	Moderate	Spiked Malvastrum Weed of river and creek margins, wastelands and arid zone habitats.
* <i>Solanum nigrum</i>	Moderate	Black Berry Nightshade Common weed of disturbed woodlands, creeklines and wetlands.
* <i>Sonchus oleraceus</i>	Moderate	Common Sowthistle Common on roadsides and disturbed land.
* <i>Argemone ochroleuca</i>	Mild	Mexican Poppy Widely distributed in pastoral areas, mainly along rivers and in moist flats.
* <i>Echinochloa colona</i>	Mild	Awnless barnyard grass Widespread weed of creeks and swamps in the Pilbara and Kimberley.

Species	Rating	Description
* <i>Cenchrus echinatus</i>	Low	Burrgrass Common on disturbed ground and road verges from the Kimberley to the South-West.
* <i>Chloris virgata</i>	Low	Feathertop Rhodes Grass Commonly found on sand dunes.
* <i>Setaria verticillata</i>	Low	Common and widespread weed of disturbed land, riverine edges and shrublands in the Pilbara.
* <i>Bidens bipinnata</i>	TBA	Bipinnate Beggartick Favours wetlands and is thought to be spread by cattle.
* <i>Portulaca oleracea</i>	TBA	Purslane Common on clay loam and sand, on disturbed land.
* <i>Cucumis melo</i> subsp. <i>agrestis</i>	TBA	Ulcardo Melon Common in the Kimberley and Pilbara bioregions.

**APPENDIX C**

**DEFINITION OF THREATENED  
ECOLOGICAL COMMUNITIES AND  
DEFINITION OF PRIORITY  
ECOLOGICAL COMMUNITIES**

## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX C

#### DEFINITION OF ECOLOGICAL COMMUNITIES

##### **C1 Definition of Threatened Ecological Communities** (Department of Environment and Conservation 2007)

###### **Presumed Totally Destroyed (PD)**

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 (A or B):

- A) records within the last 50 years have not been confirmed despite thorough searches or known or likely habitats;
- B) all occurrences recorded within the last 50 years have since been destroyed.

###### **Critically Endangered (CR)**

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. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria (A, B or C):

- A) the estimated geographic range, and/or total area occupied, and/or number of discrete occurrences since European settlement have been reduced by at least 90% and either or both of the following apply (i or ii):
  - i) geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is imminent (within approximately 5 years);
  - ii) modification throughout its range is continuing such that in the immediate future (within approximately 5 years) the community is unlikely to be capable of being substantially rehabilitated.
- B) current distribution is limited, and one or more of the following apply (i, ii or iii):
  - i) geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the immediate future (within approximately 5 years);
  - ii) there are very few occurrences, each of which is small and/or isolated and extremely vulnerable to known threatening processes;
  - iii) there may be many occurrences but total area is very small and each occurrence is small and/or isolated and extremely vulnerable to known threatening processes.
- C) the ecological community exists only as highly modified occurrences which may be capable of being rehabilitated if such work begins in the immediate future (within approximately 5 years).

### **Endangered (EN)**

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. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria (A, B or C):

- A) the estimated geographic range, and/or total area occupied, and/or number of discrete occurrences since European settlement have been reduced by at least 70% and either or both of the following apply (i or ii):
  - i) geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is likely in the short term (within approximately 10 years);
  - ii) modification throughout its range is continuing such that in the short term future (within approximately 10 years) the community is unlikely to be capable of being substantially restored or rehabilitated.
- B) current distribution is limited, and one or more of the following apply (i, ii or iii):
  - i) geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the short term future (within approximately 10 years);
  - ii) there are very few occurrences, each of which is small and/or isolated and extremely vulnerable to known threatening processes;
  - iii) there may be many occurrences but total area is very small and each occurrence is small and/or isolated and extremely vulnerable to known threatening processes.
- C) the ecological community exists only as highly modified occurrences which may be capable of being rehabilitated if such work begins in the short term future (within approximately 10 years).

### **Vulnerable (VU)**

An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing a high risk of total destruction in the medium to long term future. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria (A, B or C):

- A) the ecological community exists largely as modified occurrences which are likely to be capable of being substantially restored or rehabilitated;
- B) the ecological community can be modified or destroyed and would be vulnerable to threatening processes, is restricted in area and/or range and/or is only found at a few locations;
- C) the ecological community may still be widespread but is believed likely to move into a category of higher threat in the medium to long term future because of existing or impending threatening processes.

## **C2 Definition of Priority Ecological Communities** (Department of Environment and Conservation 2007)

### **Priority One (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. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.

### **Priority Two (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, unallocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.

### **Priority Three (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 by domestic and/or feral stock, and inappropriate fire regimes.

Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.

**Priority Four (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:

- (a) Rare: ecological communities known from few occurrences that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These communities are usually represented on conservation lands.
- (b) Near Threatened: ecological communities that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.
- (c) Ecological communities that have been removed from the list of threatened communities during the past five years.

### **Priority Five (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 D**

## **FLORA SURVEY QUADRAT AND RELEVÉ LOCATIONS**

## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX D

#### Flora Survey Quadrat and Relevé Locations

Site Number	# Easting	# Northing
YA01	724999	7505452
YA02	725867	7505033
YA03	727689	7504047
YA04	729322	7503149
YA05	730956	7501975
YA06	726773	7504496
YA07	728530	7503514
YA08	730375	7502399
YA10	745339	7494087
YA11	743164	7494922
YA12	741227	7495683
YA13	739287	7496448
YA14	737454	7497514
YA15	735724	7498574
YA16	733748	7499783
YA17	732484	7500645
YA18	731751	7501297
YA19	731094	7501793
YA20	732306	7500765
YA21	734865	7499039
YA22	736617	7497968
YA23	737921	7497169
YA24	740282	7496012

Site Number	# Easting	# Northing
YA25	742171	7495257
YA26	744237	7494441
YA27	746376	7493614
YA28	738921	7496563
YA30	747755	7493062
YA31	748561	7492614
YA32	761546	7484037
YA33	762913	7483125
YA34	774037	7472715
YA39	749465	7491959
YA40	750459	7491354
YA41	751425	7490673
YA42	751951	7490369
YA43	752818	7489746
YA44	753450	7489373
YA45	754258	7488799
YA46	755084	7488300
YA47	755920	7487701
YA48	756904	7487097
YA49	757539	7486621
YA50	758611	7485971
YA51	759222	7485511
YA52	760173	7484938
YA53	761110	7484256
YA54	761805	7483870
YA55	762527	7483320
YA56	763553	7482710

Site Number	# Easting	# Northing
YA57	764019	7482333
YA58	764971	7481774
YA59	765816	7481153
YA60	766465	7480792
YA61	767623	7479964
YA62	768546	7479418
YA63	769158	7478952
YA64	769962	7478491
YA65	770642	7477984
YA66	771553	7477156
YA67	772119	7476151
YA68	772995	7478175
YA69	773227	7474330
YA70	773734	7473444
YB01	792699	7420315
YB02	792775	7420667
YB03	793044	7421197
YB04	793513	7421977
YB05	793847	7422622
YB06	794545	7424017
YB07	795497	7425878
YB08	796348	7427989
YB09	797107	7430169
YB10	797087	7431177
YB11	792805	7420479
YB12	793270	7421462
YB13	793804	7422326

Site Number	# Easting	# Northing
YB14	794306	7423483
YB15	795061	7424837
YB16	795989	7427071
YB17	796945	7429300
YB18	797180	7432068
YB19	797213	7434069
YB20	797250	7436157
YB21	797129	7438070
YB22	796505	7440001
YB23	797156	7432233
YB24	797179	7435290
YB25	797204	7437217
YB26	795982	7441521
YB27	796757	7439123
YB28	795236	7443822
YB29	793932	7445544
YB30	792770	7446921
YB31	791088	7448918
YB32	789602	7450685
YB33	788078	7452494
YB34	786370	7454510
YB35	795843	7442049
YB36	795188	7444001
YB37	794476	7444943
YB38	793372	7446253
YB39	791886	7448015
YB40	790418	7449764

Site Number	# Easting	# Northing
YB41	788830	7451661
YB42	786943	7453920
YB43	785262	7455819
YB44	783398	7457985
YB45	782027	7459909
YB46	780588	7461945
YB47	779203	7463903
YB48	777315	7466566
YB49	776040	7468728
YB50	775135	7470560
YB51	784292	7456873
YB52	782618	7459029
YB53	781235	7460977
YB54	779791	7463012
YB55	778629	7464668
YB56	777803	7465809
YB57	776517	7467651
YB58	774187	7472506
YB59	774816	7471229
YAR02	733206	7500059
YAR03	760803	7484529
YAR05	769755	7478651
YAR06	768053	7479689
YAR07	743926	7494630
YAR09	727046	7504392
YAR10	730003	7502760
YAR11	735351	7498767

Site Number	# Easting	# Northing
YAR12	748756	7492438
YAR13	756679	7487198
YAR14	757781	7486463
YAR15	762142	7483574
YAR16	770823	7477904
YAR17	772478	7475560

# Australian Geocentric 1994 (GDA94), Zone 50K

# APPENDIX E

# SITE PHOTOGRAPHS



## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX E

#### Site Photographs - Quadrats

YA01



YA02



YA03



YA04



YA05



YA06





YA07



YA08



YA10



YA11





YA12



YA13



YA14



YA15





YA16



YA17





YA18



YA19



YA20



YA21



YA22



YA23





YA24



YA25



YA26



YA27





YA28



YA30



YA31



YA32





YA33



YA34





YA39



YA40



YA41



YA42





YA43



YA44



YA45



YA46



YA47



YA48





YA49



YA50



YA51



YA52





YA53



YA54



YA55



YA56





YA57



YA58



YA59



YA60



YA61



YA62





YA63



YA64





YA65



YA66



YA67



YA68





YA69



YA70



YAR02



YAR03





YAR05



YAR06



YAR07



YAR09





YAR10



YAR11



YAR12



YAR13





YAR14



YAR15



YAR16



YAR17





YB01



YB02



YB03



YB04





YB05



YB06



YB07



YB08



YB09



YB10





YB11



YB12





YB13



YB14



YB15



YB16



YB17



YB18





YB19



YB20





YB21



YB22



YB23



YB24





YB25



YB26



YB27



YB28





YB29



YB30



YB31



YB32





YB33



YB34



YB35



YB36





YB37



YB38



YB39



YB40



YB41



YB42





YB43



YB44





YB45



YB46



YB47



YB48





YB49



YB50



YB51



YB52





YB53



YB54



YB55



YB56



YB57



YB58





YB59





# **APPENDIX F**

## **DEFINITION OF CONDITION SCALES AND FIRE AGE**

## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX F

#### Appendix F1 - Definition of Condition Scales (Trudgen 1991)

Condition Code	Definition
<b>E</b>	<p><b>Excellent</b></p> <p>Pristine or nearly so, no obvious signs of damage caused by the activities of European man.</p>
<b>VG</b>	<p><b>Very Good</b></p> <p>Some relatively slight signs of damage caused by the activities of European man, e.g. some signs of damage to tree trunks caused by repeated fire and the presence of some relatively non-aggressive weeds such as <i>Ursinia anthemoides</i> or <i>Briza</i> species, or occasional vehicle tracks.</p>
<b>G</b>	<p><b>Good</b></p> <p>More obvious signs of damage caused by the activities of European man, including some obvious impact on the vegetation structure such as caused by low levels of grazing or by selective logging. Weeds as above, possibly plus some more aggressive ones.</p>
<b>P</b>	<p><b>Poor</b></p> <p>Still retains basic vegetation structure or ability to regenerate to it after very obvious impacts of activities of European man such as grazing or partial clearing (chaining) or very frequent fires. Weeds as above, probably plus some more aggressive ones such as <i>Ehrharta</i> species.</p>
<b>VP</b>	<p><b>Very Poor</b></p> <p>Severely impacted by grazing, fire, clearing or a combination of these activities. Scope for some regeneration but, not to a state approaching good condition without intensive management. Usually with a number of weed species including aggressive species.</p>
<b>D</b>	<p><b>Completely Degraded</b></p> <p>Areas that are completely or almost completely without native species in the structure of their vegetation, e.g. areas that are cleared or “parkland cleared” with their flora comprising weed or crop species with isolated native trees or shrubs.</p>

## Appendix F2 - Definition of Fire Age

<b>Fire Age</b>	<b>Definition</b>
<b>Recent</b>	Less than 1 year
<b>Young</b>	1 – 4 years
<b>Moderate</b>	4 – 8 years
<b>Old</b>	8 – 12 years
<b>Very Old</b>	Greater than 12 years

# APPENDIX G

# DATA SHEETS



## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX G

#### Data Sheets

<b>Site</b>	YA01		
<b>Described</b>	TE	<b>Date</b>	4/16/2008
<b>Season</b>		<b>Type</b>	Q
		<b>Uniformity</b>	25 x 100m
<b>Location</b>	North near Chainage 281.		
<b>MGA</b>	50	724999	mE
<b>Habitat</b>	Plain.		
<b>Soil</b>	Fine red, brown loam with ironstone gravels and scattered cobbles and pebbles.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Corymbia semiclara scattered low trees over Acacia inaequilatera, Acacia ancistrocarpa open shrubland over Scaevola parvifolia subsp. pilbarae low scattered shrubs over Triodia basedowii very open hummock grassland over Aristida holathera var. holathera, Aristida inaequiglumis, Eulalia aurea, Paraneurachne muelleri open tussock grassland over Bonamia rosea scattered herbs.		
<b>Veg</b>	Poor. Area affected by infrastructure, cattle (tracks), litter and earth mounds.		
<b>Fire</b>	Young to moderate.		
<b>Notes</b>	Bare ground: 70%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

#### SPECIES

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia ancistrocarpa	1%		2.0m	YA01.19	
	Acacia inaequilatera	2%		1.0-2.0m	YA01.25	
	Aristida holathera var. holathera	3%		<0.1m	YA01.01	
	Aristida inaequiglumis	20%		0.5-1.0m	YA01.10	
	Bonamia rosea	1%		<0.3m	YA01.02	
	Cenchrus ciliaris	+		0.5m	YA01.31	
	Cleome viscosa	+		8.0m	YA01.30	Edge of plot.
	Cleome viscosa	+		0.6m	YA01.18	
	Corchorus tectus	+		<0.4m	YA01.04	
	Corymbia semiclara	1%		5.0-6.0m	YA01.27	
	Cymbopogon obtectus	+		0.6m	YA01.17	
	Dicrastylis cordifolia	+		0.4m	YA01.07	
	Dysphania rhadinostachya subsp. rhadinostachya	+		<0.1m	YA01.12	
	Eragrostis aff. eriopoda (WAS site 963)	+		0.5m	YA01.06	
	Eriachne aristidea	+		0.1m	YA01.22	
	Eulalia aurea	1%		0.5m	YA01.28	
	Euphorbia australis (mid-green form)	+		<0.2m	YA01.13	
	Goodenia microptera	+		0.1m	YA01.09	
	Haloragis gossei var. gossei	+		<0.1m	YA01.11	
	Indigofera monophylla (brown calyx form)	+		0.3m	YA01.05	
	Mukia maderaspatana	+		CL	YA01.29	
	Paraneurachne muelleri	1%		<0.2m	YA01.03	
	Portulaca oleracea	+		0.1m	YA01.14	

<i>Ptilotus astrolasius</i> var. <i>astrolasius</i>	+	0.3m	YA01.24
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	0.3m	YA01.32
<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	0.1m	YA01.36
<i>Scaevola parvifolia</i> subsp. <i>pilbarae</i>	1%	0.3m	YA01.23
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	0.5m	YA01.20
<i>Senna notabilis</i>	+	0.5m	YA01.08
<i>Sida cardiophylla</i>	+	0.1m	YA01.33
<i>Solanum lasiophyllum</i>	+	0.2m	YA01.26
<i>Trianthera pilosa</i>	+	<0.2m	YA01.35
<i>Tribulus hirsutus</i>	+	0.1m	YA01.15
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.3m	YA01.34
<i>Triodia basedowii</i>	5%	0.5-1.0m	YA01.21
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	0.2m	YA01.16

<b>Site</b>	YA02		
<b>Described Season</b>	TE	<b>Date</b>	4/16/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 282.		
<b>MGA</b>	50	725867 <b>mE</b>	7505033 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown sandy loam.		
<b>Rock</b>	Ferrous rock with black granite.		
<b>Vegetation</b>	Corymbia aff. opaca, Corymbia hamersleyana scattered low trees over Eucalyptus gamophylla low open mallee woodland over Acacia inaequilatera open shrubland over Corchorus tectus low open shrubland over Triodia basedowii very open hummock grassland over Aristida holathera var. holathera, Cenchrus ciliaris, Cleome viscosa, Aristida inaequiglumis open tussock grassland over Trianthema pilosa very open herbland.		
<b>Veg</b>	Poor. Area affected by infrastructure and fire.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 75%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimet</b>	<b>Notes</b>
	Abutilon aff. lepidum (4)	+	0.1m	YA02.07	
	Acacia ancistrocarpa	+	1.0m	YA01.19	VC (OP).
	Acacia aneura var. conifera	+	0.1m	YA02.16	
	Acacia inaequilatera	2%	1.0m	YA01.25	
	Acacia sclerosperma subsp. sclerosperma	+	1.2m	YA02.22	VC (OP).
	Acacia synchronicia	+	0.3m	YA02.20	VC (OP).
	Aristida holathera var. holathera	8%	<0.1m	YA01.01	
	Aristida inaequiglumis	1%	0.3m	YA01.10	
	Boerhavia coccinea	+	<0.1m	YA02.11	
	Bonamia rosea	+	0.1m	YA01.02	
	Cenchrus ciliaris	5%	0.2m	YA01.31	
	Cleome viscosa	1%	0.1m	YA01.18	
	Corchorus tectus	2%	<0.1m	YA01.04	
	Corymbia aff. opaca	1%	5.0m	YA02.08	
	Corymbia aff. opaca	+	5.0m	YA02.18	VC (OP).
	Corymbia hamersleyana	+	5.0m	YA02.17	VC (OP).
	Cullen leucochaites	+	<0.1m	YA02.04	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.1m	YA02.13	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.1m	YA01.06	
	Eriachne aristidea	+	<0.1m	YA02.14	
	Eriachne aristidea	+	<0.1m	YA01.22	
	Eucalyptus gamophylla	3%	0.3m	YA02.12	
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Goodenia microptera	+	<0.1m	YA01.09	
	Goodenia microptera	+	<0.1m	YA02.05	
	Goodenia microptera	+	<0.1m	YA02.09	
	Hakea lorea subsp. lorea	+	4.0m	YA02.15	
	Paraneurachne muelleri	+	<0.1m	YA01.03	
	Paraneurachne muelleri	+	0.1m	YA01.03	
	Perotis rara	+	<0.1m	YA02.01	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	

<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.5m	YA02.23	VC (OP).
<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	<0.1m	YA01.36	
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	+	0.2m	YA02.21	VC (OP).
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	0.1m	YA01.20	
<i>Senna notabilis</i>	+	<0.1m	YA01.08	
<i>Solanum lasiophyllum</i>	+	0.1m	YA01.26	
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06	
<i>Trianthema pilosa</i>	3%	<0.1m	YA01.35	
<i>Tribulus angustifolius</i>	+	<0.1m	YA02.02	
<i>Tribulus hirsutus</i>	+	<0.1m	YA01.15	
<i>Tribulus macrocarpus</i>	+	<0.1m	YA02.03	
<i>Triodia basedowii</i>	5%	0.2m	YA01.21	
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	<0.1m	YA01.16	

VC: Recorded within the vegetation community.

OP: Out of plot.



**Site** YA03  
**Described** KM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**  
**Location** Chainage 284.  
**MGA** 50 **mE** 727689 **mN** 7504047  
**Habitat** Plain.  
**Soil** Red, brown loam with clay.  
**Rock** Ferrous rock and silicate with black granite.  
**Vegetation** Corymbia hamersleyana scattered low trees over Hakea lorea subsp. lorea high open shrubland over Cenchrus ciliaris tussock grassland.  
**Veg** Poor. Area disturbed by infrastructure.  
**Fire** Moderate.  
**Notes** Bare ground: 60%.  
 Litter cover: Logs: +. Twigs: 1%. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	+		3.0m	YA03.01	
	Acacia dictyophleba	+		0.4m	YA04.03	
	Acacia sclerosperma subsp. sclerosperma	+		1.0m	YA03.10	
	Acacia synchronicia	+		2.0m	YA03.04	
	Aristida contorta	+		<0.1m	YA03.07	
	Boerhavia coccinea	+		<0.1m	YA03.16	VC (OP).
	Cenchrus ciliaris	30%		<1.0m	YA01.31	
	Cenchrus setiger	+		<0.1m	YA03.13b	
	Cleome viscosa	+		0.1m	YA01.18	
	Corymbia hamersleyana	+		7.0m	YA03.15	VC (OP).
	Duperreya commixta	+		CR	YA03.06	
	Hakea lorea subsp. lorea	5%		5.0m	YA02.15	
	Hakea lorea subsp. lorea	1%		5.0m	YA03.12	
	Mukia maderaspatana	+		CR	YA03.03	
	Paraneurachne muelleri	+		<0.1m	YA03.08	
	Portulaca oleracea	+		<0.1m	YA01.14	
	Rhagodia eremaea	+		1.0m	YA03.09	
	Salsola tragus	+		<0.1m	YA12.20	
	Sclerolaena cornishiana	+		0.1m	YA03.14	
	Solanum lasiophyllum	+		0.1m	YA03.02	
	Tragus australianus	+		<0.1m	YA03.13a	
	Trianthema triquetra var. triquetra	+		<0.1m	YA03.17	
	Triodia basedowii	+		<0.1m	YA01.21	

**Site** YA04

**Described Season** TE **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m

**Location** Chainage 286.

**MGA** 50 **mE** 729322 **mN** 7503149

**Habitat** Plain.

**Soil** Red, brown loam with some clay (cracking surface).

**Rock** Ferrous rock.

**Vegetation** Corymbia hamersleyana scattered trees over Acacia aneura var. aneura, Acacia pruinocarpa low woodland over Acacia synchronicia, Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea, Acacia inaequilatera high shrubland over Triodia basedowii very open hummock grassland over Cenchrus ciliaris closed tussock grassland.

**Veg** Poor to very poor. Area disturbed by weeds and cattle.

**Fire** Old.

**Notes** Bare ground: 15%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

#### SPECIES

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aneura var. aneura	10%	8.0m	YA04.08	
	Acacia dictyophleba	+	0.5m	YA04.03	Seedling.
	Acacia inaequilatera	2%	2.0-4.0m	YA01.25	
	Acacia pruinocarpa	2%	6.0-8.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	3%	2.0-3.0m	YA02.22	
	Acacia synchronicia	3%	2.0-3.0m	YA05.15	
	Aristida holathera var. holathera	+	0.5m	YA04.04	
	Cenchrus ciliaris	80%	0.5m	YA01.31	
	Cleome viscosa	+	0.2m	YA01.18	
	Corchorus sidoides	+	0.3m	YA04.02	
	Corchorus tectus	+	0.2m	YA01.04	
	Corymbia hamersleyana	+	10.0m	YA03.15	VC (OP).
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.2m	YA01.06	
	Eremophila forrestii subsp. forrestii	+	1.0m	YA04.06	
	Hakea lorea subsp. lorea	2%	5.0m	YA02.15	
	Ipomoea muelleri	+	0.1m	YA04.09	
	Maireana planifolia	+	1.0m	YA04.07	
	Senna artemisioides subsp. oligophylla	+	0.5m	YA04.05	
	Sida platycalyx	+	0.3m	YA04.10	
	Sporobolus australasicus	+	0.1m	YA02.06	
	Trichodesma zeylanicum var. zeylanicum	+	0.2m	YA01.34	
	Triodia basedowii	2%	0.5m	YA01.21	

**Site** YA05

**Described** TE **Date** 4/16/2008 **Type** Q **25 x 100m**

**Season** **Uniformity**

**Location** Chainage 288.

**MGA** 50 **730956 mE** **7501975 mN**

**Habitat** Plain with clay pans.

**Soil** Red, brown loam with clay (cracked surface).

**Rock** Ferrous rock.

**Vegetation** *Corymbia hamersleyana*, *Acacia pruinocarpa*, *Acacia aneura* var. *intermedia* low open woodland over *Acacia synchronicia*, *Vachellia farnesiana* high open shrubland over *Acacia aneura* var. *aneura* scattered shrubs over *Cenchrus ciliaris* open tussock grassland.

**Veg** Good to poor. Area disturbed by cattle, weeds, scrap metal and railway.

**Fire** Old.

**Notes** Bare ground: 80%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.  
High percentage cover of weeds.

#### SPECIES

Quad	Name	Cover C	Height	Specimen	Notes
	<i>Acacia aneura</i> var. <i>aneura</i>	1%	1.0-2.0m	YA05.12	
	<i>Acacia aneura</i> var. <i>intermedia</i>	5%	6.0m	YA05.11	
	<i>Acacia pruinocarpa</i>	1%	6.0m	YA04.01	
	<i>Acacia synchronicia</i>	5%	2.0-3.0m	YA05.16	
	<i>Acacia synchronicia</i>	5%	2.0-3.0m	YA05.15	
	<i>Alysicarpus muelleri</i>	+	0.2m	YA05.09	
	<i>Amaranthus undulatus</i>	+	<0.1m	YA05.02	
	<i>Boerhavia coccinea</i>	+	<0.1m	YA03.16	
	<i>Boerhavia coccinea</i>	+	<0.1m	YA03.16	
	<i>Cenchrus ciliaris</i>	20%	0.5m	YA01.31	
	<i>Chloris pectinata</i>	+	0.3m	YA05.14	
	<i>Chrysopogon fallax</i>	+	0.6m	YA05.04	
	<i>Cleome viscosa</i>	+	0.5m	YA01.18	
	<i>Corymbia hamersleyana</i>	2%	6.0m	YA03.15	
	<i>Dactyloctenium radulans</i>	+	0.1m	YA02.10	
	<i>Enneapogon polyphyllus</i>	+	<0.1m	YA05.01	
	<i>Hakea lorea</i> subsp. <i>lorea</i>	+	4.0m	YA02.15	
	<i>Hibiscus sturtii</i> var. <i>platyklamys</i>	+	0.3m	YA05.13	
	<i>Portulaca conspicua</i>	+	<0.1m	YA05.03	
	<i>Portulaca oleracea</i>	+	<0.1m	YA01.14	
	<i>Rhagodia eremaea</i>	+	1.0m	YA05.08	
	<i>Rhynchosia minima</i> var. <i>australis</i>	+	CL	YA05.07	
	<i>Salsola tragus</i>	+	<0.1m	YA12.20	
	<i>Sclerolaena cornishiana</i>	+	0.2m	YA03.14	
	<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	+	0.3m	YA05.10	
	<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)	+	0.3m	YA05.17	
	<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06	
	<i>Vachellia farnesiana</i>	1%	2.0-3.0m	YA05.06	

<b>Site</b>	YA06		
<b>Described Season</b>	KM	<b>Date</b>	4/16/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Near Chainage 283.		
<b>MGA</b>	50	726773	<b>mE</b> 7504496 <b>mN</b>
<b>Habitat</b>	Plain/floodway.		
<b>Soil</b>	Red, brown sandy loam with gravelly soil.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Corymbia semiclara scattered low trees over Eucalyptus gamophylla scattered mallee trees over Senna notabilis low open shrubland over Aristida inaequiglumis, Eulalia aurea, Cenchrus ciliaris, Chrysopogon fallax tussock grassland.		
<b>Veg</b>	Poor. Area affected by infrastructure, litter, earth mounds and cattle.		
<b>Fire</b>	Moderate to young.		
<b>Notes</b>	Bare ground: 70%. Litter cover: Logs: +. Twigs: +. Lvs: +. Highly disturbed site which was recently burnt, as shown by the many germinating plants.		

### SPECIES

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon trudgenii MS	+	0.3m	YA06.18	
	Acacia ancistrocarpa	+	2.0m	YA01.19	
	Acacia inaequilatera	+	3.0m	YA01.25	
	Acacia sclerosperma subsp. sclerosperma		2.0-3.0m	YA61.03	
	Acacia sclerosperma subsp. sclerosperma	+	0.1m	YA06.16	
	Acacia synchronicia	+	0.5m	YA05.15	
	Acacia tumida var. pilbarensis	+	0.2 (3.0m)	YAOP02.2	
	Aristida inaequiglumis	10%	<0.1m	YA06.03	
	Aristida inaequiglumis	6%	0.6m	YA01.10	
	Bonamia rosea	+	<0.1m	YA06.01	
	Bonamia rosea	+	0.1m	YA06.13	
	Bonamia rosea	+	0.2m	YA01.02	
	Cenchrus ciliaris	20%	0.3m	YA01.31	
	Chrysopogon fallax	1%	0.5m	YA05.04	
	Cleome viscosa	+	<0.1m	YA01.18	
	Cleome viscosa	+	0.2m	YA06.14a	
	Corchorus sidoides	+	<0.1m	YA06.02	
	Corymbia semiclara	+	0.5m	YA01.27	
	Dactyloctenium radulans	+	0.1m	YA02.10	
	Dicrasyllis cordifolia	+	0.6m	YA01.07	
	Duperreya commixta	+	CL	YA67.15	
	Dysphania rhadinostachya subsp. rhadinostachya	+	0.3m	YA06.20	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.2m	YA06.06	
	Eragrostis aff. eriopoda (WAS site 963)	+	<0.1m	YA06.14	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.5m	YA01.06	
	Eriachne aristidea	+	<0.1m	YA01.22	
	Eucalyptus gamophylla	+	0.6m	YA02.12	Regrowth.
	Eulalia aurea	3%	0.3m	YA01.28	
	Eulalia aurea	+	0.1m	YA06.12	
	Euphorbia australis (mid-green form)	+	0.1m	YA01.13	
	Euphorbia coghlanii	+	<0.1m	YA11.04	
	Evolvulus alsinoides var. villosicalyx	+	0.1m	YA06.24a	
	Goodenia microptera	+	0.1m	YA01.09	
	Goodenia microptera	+	<0.1m	YA06.08	



<i>Gossypium robinsonii</i>	+	2.0-3.0m	YA06.21
<i>Hibiscus sturtii</i> var. <i>platychlamys</i>	+	0.3m	YA06.19
<i>Indigofera monophylla</i> (brown calyx form)		0.3m	YA01.05
<i>Indigofera monophylla</i> (brown calyx form)	+	<0.1m	YA06.07
<i>Mukia maderaspatana</i>	+	CL	YA01.29
<i>Paraneurachne muelleri</i>	+	<0.1m	YA06.09
<i>Paspalidium rarum</i>	+	<0.1m	YA06.10
<i>Perotis rara</i>	+	<0.1m	YA06.15
<i>Perotis rara</i>	+	<0.1m	YA02.01
<i>Phyllanthus erwinii</i>	+	0.1m	YA06.24
<i>Phyllanthus erwinii</i>	+	0.1m	YA26.04
<i>Portulaca oleracea</i>	+	<0.1m	YA01.14
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.2m	YA01.32
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.6m	YA07.02
<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	0.2m	YA01.36
<i>Rhagodia eremaea</i>	+	0.1m	YA06.04
<i>Rhyncharrhena linearis</i>	+	CL	YA06.26
<i>Scaevola parvifolia</i> subsp. <i>pilbarae</i>	+	0.3m	YA01.23
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	0.5m	YA06.17
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>	+	1.2m	YA06.22
<i>Senna notabilis</i>	3%	<0.1m	YA01.08
<i>Senna notabilis</i>	+	<0.1m	YA06.05
<i>Sida</i> sp.	+	<0.1m	YA06.11
<i>Solanum lasiophyllum</i>	+	0.3m	YA01.26
<i>Solanum phlomoides</i>	+	0.1m	YA06.25
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06
<i>Tribulus angustifolius</i>	+	<0.1m	YA02.02
<i>Tribulus macrocarpus</i>	+	<0.1m	YA06.23
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.3m	YA01.34
<i>Triodia basedowii</i>	+	0.2m	YA01.21

<b>Site</b>	YA07		
<b>Described Season</b>	TE	<b>Date</b>	4/16/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 285.		
<b>MGA</b>	50	728530 <b>mE</b>	7503514 <b>mN</b>
<b>Habitat</b>	Unburnt Mulga plain.		
<b>Soil</b>	Red, brown clayey loam with small ironstones covering the soil surface.		
<b>Rock</b>	Ferrous rock.		
<b>Vegetation</b>	Acacia aneura var. aneura, Acacia pruinocarpa low open forest over Acacia ancistrocarpa, Acacia aff. aneura (narrow fine veined; site 1259) high open shrubland over Cenchrus ciliaris, Enneapogon polyphyllus, Chrysopogon fallax open tussock grassland over Malvastrum americanum scattered herbs.		
<b>Veg</b>	Poor. Area affected by infrastructure, earth mounds, old tracks, cattle and weeds. Fibre optic line runs across the inner side of the plot.		
<b>Fire</b>	Moderate to old.		
<b>Notes</b>	Bare ground: 45%. Litter cover: Logs: +. Twigs: +. Lvs: +. Telegraphic track across the inner side of the quadrat. Prior disturbance is high.		

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.1m	YA07.01	
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.2m	YA07.12	
	Abutilon aff. lepidum (4)	+	0.3m	YA02.07	
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	2.0m	YA09.02	
	Acacia ancistrocarpa	1%	2.0-3.0m	YA01.19	Edge of plot.
	Acacia aneura var. aneura	55%	8.0m	YA04.08	
	Acacia pruinocarpa	5%	8.0m	YA04.01	
	Acacia synchronicia	+	2.0-3.0m	YA05.16	
	Boerhavia coccinea	+	<0.1m	YA03.16	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	30%	0.5m	YA01.31	
	Chloris pectinata	+	0.2m	YA07.06	
	Chloris pumilio	+	0.2m	YA07.06b	
	Chrysopogon fallax	1%	0.5m	YA05.04	
	Cleome viscosa	+	0.1m	YA07.10	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus tridens	+	<0.1m	YA07.13	
	Dactyloctenium radulans	+	0.1m	YA02.10	
	Enneapogon polyphyllus	1%	0.1m	YA07.05	
	Eremophila latrobei subsp. filiformis	+	1.5m	YA07.14	
	Eulalia aurea	+	0.4m	YA01.28	
	Euphorbia coghlanii	+	0.1m	YA11.04	
	Evolvulus alsinoides var. villosicalyx	+	0.1m	YA07.03	
	Glycine canescens	+	CL	YA07.11	
	Gossypium robinsonii	+	<0.1m	YA06.21	
	Iseilema eremaeum	+	0.1m	YA07.04	
	Maireana planifolia x villosa	+	0.2m	YA07.15	
	Malvastrum americanum	1%	0.1m	YAOP1	
	Mukia maderaspatana	+	CL	YA01.29	
	Perotis rara	+	<0.1m	YA02.01	
	Portulaca oleracea	+	<0.1m	YA01.14	

<i>Pterocaulon sphaeranthoides</i>	+	<0.1m	YA07.08
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	0.1m	YA01.32
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.6m	YA07.02
<i>Rhagodia eremaea</i>	+	1.0m	YA05.08
<i>Sclerolaena cornishiana</i>	+	0.3m	YA03.14
<i>Senna notabilis</i>	+	0.3m	YA01.08
<i>Solanum lasiophyllum</i>	+	0.1m	YA01.26
<i>Sporobolus australasicus</i>	+	0.1m	YA02.06
<i>Tribulus cistoides</i>	+	<0.1m	YA07.09
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	0.1m	YA01.16

<b>Site</b>	YA08		
<b>Described</b>	KM	<b>Date</b>	4/16/2008 <b>Type</b> Q 25 x 100m
<b>Season</b>		<b>Uniformity</b>	
<b>Location</b>	Near Repeater 6.		
<b>MGA</b>	50	730375 <b>mE</b>	7502399 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with small rocks.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia aneura var. intermedia, Atalaya hemiglauca, Acacia pruinocarpa low open woodland over Acacia ancistrocarpa open shrubland over Acacia synchronicia low open shrubland over Cenchrus ciliaris open tussock grassland over Aerva javanica scattered herbs.		
<b>Veg</b>	Good. Area disturbed by infrastructure, an earth mound (5.0m wide, extending the length of the whole plot), rubbish and cattle.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 80%. Litter cover: Logs: +. Twigs: +. Lvs: +. Front 10.0m of the plot was much more degraded than the rest of the plot.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia ancistrocarpa	10%	1.5m	YA01.19	
	Acacia aneura var. intermedia	10%	6.0m	YA08.17	VC (OP).
	Acacia inaequilatera	+	0.6m	YA08.13	VC (OP).
	Acacia pruinocarpa	1%	5.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	+	1.0m	YA08.07	
	Acacia synchronicia	10%	0.4m	YA05.15	
	Aerva javanica	+	0.1m	YA08.18	VC (OP).
	Aerva javanica	+	<0.1m	YA08.23	VC (OP).
	Aerva javanica	1%	0.3m	YA08.01	
	Aerva javanica	+	0.1m	YA08.11	
	Atalaya hemiglauca	1%	6.0m	YA08.15	
	Boerhavia repleta	+	<0.1m	YA08.21	VC (OP).
	Boerhavia sp.	+	<0.1m	YA08.20	VC (OP).
	Cenchrus ciliaris	20%	0.5m	YA01.31	
	Cleome viscosa	+	0.2m	YA01.18	VC (OP).
	Corchorus tectus	+	0.1m	YA01.04	VC (OP).
	Enneapogon caerulescens var. caerulescens	+	<0.1m	YA08.12	
	Enneapogon polyphyllus	+	<0.1m	YA08.09	
	Gossypium australe (Burrup Peninsula form)	+	0.2m	YA08.06	
	Hakea lorea subsp. lorea	+	2.0m	YA08.10	
	Mukia maderaspatana	+	CR	YA03.03	VC (OP).
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Ptilotus polystachyus var. polystachyus	+	<0.1m	YA08.19	VC (OP).
	Rhynchosia minima var. australis	+	<0.1m	YA08.16	VC (OP).
	Salsola tragus	+	<0.1m	YA08.22	VC (OP).
	Sclerolaena cornishiana	+	<0.1m	YA08.04	
	Senna artemisioides subsp. oligophylla x helmsii	+	<0.1m	YA08.05	
	Senna notabilis	+	<0.1m	YA01.08	VC (OP).
	Solanum lasiophyllum	+	0.4m	YA01.26	
	Vachellia farnesiana	+	0.1m	YA05.06	

VC: Recorded within the vegetation community.

OP: Out of plot.



<b>Site</b>	YA10		
<b>Described Season</b>	KM	<b>Date</b>	4/17/2008 <b>Type</b> Q 25 x 100m
			<b>Uniformity</b>
<b>Location</b>	Chainage 304.5.		
<b>MGA</b>	50	745339	mE 7494087 mN
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia inaequilatera, Acacia pruinocarpa, Acacia ancistrocarpa, Acacia aneura var. intermedia, Acacia aff. aneura (narrow fine veined; site 1259), Acacia tetragonophylla, Hakea lorea subsp. lorea, Acacia synchronicia high open shrubland over Triodia basedowii very open hummock grassland over Cenchrus ciliaris, Paspalidium constrictum tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 40%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	+	0.2m	YA10.17	
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	4.0m	YA10.19	
	Acacia ancistrocarpa	3%	2.0m	YA10.07	
	Acacia aneura var. intermedia	2%	2.0m	YA10.08	
	Acacia inaequilatera	4%	5.0m	YA01.25	
	Acacia pruinocarpa	2%	4.0m	YA04.01	
	Acacia synchronicia	+	2.5m	YA10.20	VC (OP).
	Acacia tetragonophylla	+	2.5m	YA10.21	VC (OP).
	Aerva javanica	+	0.4m	YA08.01	
	Boerhavia coccinea	+	<0.1m	YA10.02	
	Cenchrus ciliaris	30%	0.4m	YA01.31	
	Chloris pumilio	+	0.3m	YA10.14	
	Cleome viscosa	+	0.1m	YA01.18	
	Corchorus sidoides	+	<0.1m	YA10.11	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Dichanthium sericeum subsp. humilium	+	0.2m	YA10.16b	
	Enneapogon polyphyllus	+	<0.1m	YA10.01	
	Eremophila lanceolata	+	0.3m	YA10.04	
	Euphorbia coghlanii	+	0.2m	YA11.04	
	Gomphrena affinis subsp. pilbarensis	+	0.1m	YA10.12	
	Hakea lorea subsp. lorea	+	2.5m	YA02.15	VC (OP).
	Iseilema eremaeum	+	0.2m	YA10.16a	
	Maireana villosa	+	0.2m	YA10.18	
	Mukia maderaspatana	+	CR	YA03.03	
	Paspalidium constrictum	2%	0.1m	YA10.05	
	Perotis rara	+	0.1m	YA06.15	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Ptilotus obovatus var. obovatus	+	<0.1m	YA10.03	
	Sclerolaena cornishiana	+	<0.1m	YA10.13	
	Senna notabilis	+	<0.1m	YA10.10	
	Sida platycalyx	+	<0.1m	YA10.09	
	Solanum lasiophyllum	+	0.2m	YA03.02	
	Sporobolus australasicus	+	<0.1m	YA02.06	

Tephrosia rosea var. glabrior	+	0.1m	YA10.06
Triodia basedowii	10%	0.3m	YA01.21

VC: Recorded within the vegetation community.

OP: Out of plot.

**Site** YA11

**Described** TE **Date** 4/17/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location** Chainage 302.

**MGA** 50 **mE** 743164 **mN** 7494922

**Habitat** Plain.

**Soil** Red, brown very fine sandy loam with scattered ironstones.

**Rock** Ferrous rock and siliate.

**Vegetation** Acacia dictyophleba, Acacia sclerosperma subsp. sclerosperma high open shrubland over Sida aff. fibulifera (FMG 125-20) low scattered shrubs over Triodia pungens open hummock grassland over Cenchrus ciliaris tussock grassland.

**Veg** Poor. Area affected by infrastructure, weeds, fencing, rubbish and cattle. Plough lines are also evident at the edge of the plot.

**Fire** Moderate.

**Notes** Bare ground: 30%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia dictyophleba	5%	2.0-3.0m	YA04.03	
	Acacia sclerosperma subsp. sclerosperma	1%	3.0m	YA11.07	
	Acacia synchronicia	+	0.3m	YA05.15	
	Aerva javanica	+	0.6m	YA08.01	VC (OP).
	Aristida holathera var. holathera	+	0.2m	YA04.04	
	Boerhavia coccinea	+	0.1m	YA15.07	
	Cenchrus ciliaris	35%	0.5m	YA01.31	
	Chrysopogon fallax	+	0.5m	YA05.04	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.5m	YA01.06	
	Eragrostis xerophila	+	0.1m	YA11.09	
	Eremophila longifolia	+	3.0m	YAOP02.1	VC (OP).
	Eriachne aristidea	+	0.1m	YA01.22	
	Euphorbia coghlanii	+	0.1m	YA11.04	
	Hibiscus sturtii var. platyklamys	+	0.1m	YA11.08	
	Indigofera linifolia	+	0.1m	YA11.05	
	Phyllanthus erwinii	+	0.1m	YA26.04	
	Rhynchosia minima var. australis	+	CL	YA05.07	
	Senna artemisioides subsp. oligophylla	+	2.0m	YA11.06	
	Sida aff. fibulifera (FMG 125-20)	1%	0.2m	YA11.03	
	Tephrosia aff. supina (MET 12,357)	+	0.1m	YA11.02	
	Triodia pungens	1%	0.5m	YA11.10	
	Triodia pungens	20%	0.5m	YA11.01	

VC: Recorded within the vegetation community.  
OP: Out of plot.

<b>Site</b>	YA12		
<b>Described Season</b>	KM	<b>Date</b>	4/17/2008 <b>Type</b> Q <span style="float: right;">25 x 100m</span>
			<b>Uniformity</b>
<b>Location</b>	Near Chainage 300.		
<b>MGA</b>	50	741227	<b>mE</b> <span style="float: right;">7495683 <b>mN</b></span>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia pruinocarpa, Hakea lorea subsp. lorea low open woodland over Acacia aneura var. pilbarana high shrubland over Corchorus tectus low scattered shrubs over Cenchrus ciliaris, Chrysopogon fallax open tussock grassland over Sclerolaena cornishiana, Aerva javanica very open herbland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure and cattle.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 80%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aneura var. pilbarana	20%	3.0m	YA12.01	
	Acacia pruinocarpa	1%	7.0m	YA04.01	
	Acacia synchronicia	+	0.3m	YA05.16	
	Aerva javanica	1%	0.4m	YA08.01	
	Amyema fitzgeraldii	+	0.4m	YAOP05TE	
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Boerhavia repleta	+	<0.1m	YA12.05	
	Cenchrus ciliaris	15%	0.3m	YA01.31	
	Chrysopogon fallax	5%	0.3m	YA05.04	
	Cleome viscosa	+	0.1m	YA01.18	
	Corchorus sidoides	+	<0.1m	YA10.11	
	Corchorus tectus	1%	<0.1m	YA01.04	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Enneapogon polyphyllus	+	<0.1m	YA10.01	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.1m	YA12.11	
	Euphorbia coghlanii	+	0.1m	YA11.04	
	Evolvulus alsinoides var. villosicalyx	+	<0.1m	YA12.14	
	Gossypium australe (Burrup Peninsula form)	+	2.0m	YA12.17	
	Hakea lorea subsp. lorea	1%	4.0m	YA02.15	
	Indigofera georgei	+	0.2m	YA12.04	
	Indigofera linifolia	+	0.1m	YA12.13	
	Indigofera linnaei	+	0.1m	YA12.19	
	Perotis rara	+	<0.1m	YA06.15	
	Psyrax latifolia	+	<0.1m	YA12.10	
	Pterocaulon sphaeranthoides	+	<0.1m	YA12.16	
	Pterocaulon sphaeranthoides	+	0.1m	YA12.18	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Ptilotus obovatus var. obovatus	+	<0.1m	YA12.06	



Rhynchosia minima var. australis	open herbland.	+	CR YA12.12
Salsola tragus	+	<0.1m	YA12.20
Sclerolaena cornishiana	2%	0.1m	YA10.13
Senna notabilis	+	<0.1m	YA01.08
Senna sp.	+	<0.1m	YA12.07
Sida platycalyx	+	0.2m	YA12.08
Solanum lasiophyllum	+	0.4m	YA03.02 OSH.
Sporobolus australasicus	+	<0.1m	YA02.06
Tephrosia rosea var. glabrior	+	<0.1m	YA10.06
Trichodesma zeylanicum var. zeylanicum	+	<0.1m	YA12.15
Triodia pungens	+	0.3m	YA12.03

OSH: Obligate stem hemiparasite.

**Site** YA13

**Described** TE **Date** 4/17/2008 **Type** Q **25 x 100m**

**Season** **Uniformity**

**Location** Chainage 298.

**MGA** 50 **739287 mE** **7496448 mN**

**Habitat** Plain/clay pan.

**Soil** Red, brown loam with some clay content.

**Rock** Ferrous rock and silicate.

**Vegetation** Acacia aneura var. aneura low open woodland over Acacia synchronicia, Acacia aneura var. aneura high shrubland over Sida platycalyx, Corchorus sidoides, Senna notabilis low open shrubland over Cenchrus ciliaris, Aristida contorta, Chrysopogon fallax, Dactyloctenium radulans, Perotis rara open tussock grassland over Sclerolaena cornishiana, Portulaca oleracea very open herbland.

**Veg** Poor. Area affected by infrastructure, cattle and weeds.

**Fire** Moderate to young.

**Notes** Bare ground: 60%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.  
Very moist with lots of herbs.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aneura var. aneura	15%	2.0-3.0m	YA13.06	
	Acacia aneura var. aneura	2%	8.0m	YA13.06	
	Acacia pruinocarpa	+	2.5m	YA04.01	
	Acacia synchronicia	10%	2.0-3.0m	YA05.16	
	Acacia synchronicia	2%	2.0-3.0m	YA05.15	
	Aristida contorta	3%	0.1m	YA13.03	
	Boerhavia coccinea	+	0.1m	YA15.07	
	Boerhavia coccinea	+	CL	YA03.16	
	Bulbostylis barbata	+	<0.1m	YA13.11	
	Cenchrus ciliaris	20%	0.5m	YA01.31	
	Chloris pectinata	+	0.1m	YA07.06	
	Chrysopogon fallax	2%	0.6-1.0m	YA05.04	
	Cleome viscosa	+	0.2m	YA01.18	
	Corchorus sidoides	2%	0.2m	YA04.02	
	Corchorus tectus	+	0.3m	YA01.04	
	Dactyloctenium radulans	2%	<0.1m	YA02.10	
	Digitaria ctenantha	+	0.3m	YA13.09	
	Enneapogon polyphyllus	+	0.1m	YA07.05	
	Eragrostis xerophila	+	0.5m	YA13.14	
	Eragrostis xerophila	+	0.1m	YA13.07	
	Euphorbia australis (mid-green form)	+	0.1m	YA01.13	
	Euphorbia coghlanii	+	0.1m	YA13.10	
	Gomphrena kanisii	+	0.1m	YA13.13	
	Heliotropium inexplicitum	+	0.1m	YA13.12	
	Hibiscus sturtii var. platyklamys	+	0.3m	YA11.08	
	Indigofera colutea	+	0.1m	YA13.05	
	Indigofera linifolia	+	0.3m	YA11.05	
	Ipomoea muelleri	+	CL	YA13.08	
	Perotis rara	2%	0.1m	YA02.01	
	Phyllanthus erwinii	+	0.1m	YA26.04	
	Portulaca oleracea	1%	0.1m	YA01.14	

<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	0.3m	YA01.32
<i>Ptilotus helipteroides</i> var. <i>helipteroides</i>	+	0.1m	YA13.02
<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	0.1m	YA01.36
<i>Salsola tragus</i>	+	0.1m	YA12.20
<i>Sclerolaena cornishiana</i>	5%	0.2m	YA13.01
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	+	0.5m	YA13.16
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	1.0m	YA11.06
<i>Senna notabilis</i>	1%	0.5m	YA01.08
<i>Sida platycalyx</i>	5%	0.3m	YA13.04
<i>Solanum lasiophyllum</i>	+	0.5m	YA01.26
<i>Sporobolus australasicus</i>	+	0.1m	YA02.06
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)	+	0.1m	YA11.02
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.2m	YA01.34
<i>Triodia pungens</i>	+	0.5m	YA13.15

**Site** YA14  
**Described** KM **Date** 4/17/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**  
**Location** Chainage 296.  
**MGA** 50 737454 **mE** 7497514 **mN**  
**Habitat** Plain.  
**Soil** Red, brown loam with scattered rocks. Some clay content.  
**Rock** Ferrous rock and silicate.  
**Vegetation** Acacia synchronicia, Acacia ancistrocarpa, Acacia aff. aneura (narrow fine veined; site 1259) high open shrubland over Cenchrus ciliaris very open tussock grassland.  
**Veg** Poor. Area affected by infrastructure, cattle and rubbish.  
**Fire** Moderate.  
**Notes** Bare ground: 90%.  
 Litter cover: Logs: +. Twigs: +. Lvs: +.  
 Sparse vegetation.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	5.0m	YA14.05	
	Acacia ancistrocarpa	1%	2.0m	YA10.07	VC (OP).
	Acacia sclerosperma	+	2.0m	YA14.06	
	Acacia synchronicia	3%	2.0m	YA05.16	
	Acacia victoriae	+	0.1m	YA14.01	
	Amyema fitzgeraldii	+	0.4m	YAOP05TE	OSH.
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Boerhavia repleta	+	<0.1m	YA12.05	
	Cenchrus ciliaris	10%	0.4m	YA01.31	
	Cleome viscosa	+	0.1m	YA01.18	
	Cullen leucanthum	+	0.5m	YA14.02	
	Enneapogon polyphyllus	+	<0.1m	YA10.01	
	Eragrostis aff. eriopoda (WAS site 963)	+	<0.1m	YA14.08	
	Indigofera colutea	+	<0.1m	YA14.03	
	Paraneurachne muelleri	+	<0.1m	YA03.08	
	Psyrax latifolia	+	<0.1m	YA12.10	
	Salsola tragus	+	<0.1m	YA12.20	
	Sclerolaena cornishiana	+	0.1m	YA10.13	
	Sida aff. fibulifera (oblong; MET 15 220)	+	<0.1m	YA14.07	
	Tribulus occidentalis	+	<0.1m	YA14.04	

VC: Recorded within the vegetation community.

OP: Out of plot.

OSH: Obligate stem hemiparasite.



<b>Site</b>	YA15		
<b>Described Season</b>	TE	<b>Date</b>	4/17/2008 <b>Type</b>
			<b>Uniformity</b>
<b>Location</b>	Chainage 294.		
<b>MGA</b>	50	735724 <b>mE</b>	7498574 <b>mN</b>
<b>Habitat</b>	Plain of Acacia synchronicia shrubland.		
<b>Soil</b>	Red, brown sandy loam with little clay. Areas of hardened pans.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Corymbia aff. opaca low scattered trees over Acacia synchronicia, Acacia pruinocarpa, Hakea lorea subsp. lorea high shrubland over Corchorus sidoides, Sida aff. fibulifera (FMG 125-20) low open shrubland over Cenchrus ciliaris, Enneapogon polyphyllus open tussock grassland over Aerva javanica scattered herbs.		
<b>Veg</b>	Very poor. Area disturbed by cattle, weeds and rubbish (scrap metal).		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 70%. Litter cover: Logs: +. Twigs: +. Lvs: +. Much of the plot is bare/denuded, possibly grazed.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon otocarpum	+	0.3m	YA15.02	
	Acacia aff. aneura (narrow fine veined; site 1259)	+	3.0m	YA13.06	
	Acacia pruinocarpa	1%	2.0-4.0m	YA04.01	
	Acacia synchronicia	10%	2.0-3.0m	YA05.15	
	Acacia synchronicia	3%	2.5m	YA05.15	
	Aerva javanica	1%	0.5-1.0m	YA08.01	
	Aristida holathera var. holathera	+	0.1m	YA01.01	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	15%	0.5m	YA01.31	
	Chrysopogon fallax	+	0.3m	YA05.04	
	Cleome viscosa	+	0.2m	YA01.18	
	Corchorus sidoides	2%	0.4m	YA15.01	
	Corymbia aff. opaca	+	4.0m	YA15.08	VC (OP).
	Dactyloctenium radulans	+	0.1m	YA02.10	
	Enneapogon polyphyllus	3%	0.1m	YA07.05	
	Euphorbia coghlanii	+	<0.1m	YA15.03	
	Hakea lorea subsp. lorea	1%	5.0m	YA02.15	
	Indigofera colutea	+	0.1m	YA13.05	
	Ipomoea muelleri	+	CL	YA13.08	
	Iseilema eremaeum	+	<0.1m	YA07.04	
	Portulaca oleracea	+	<0.1m	YA01.14	
	Pterocaulon sphaeranthoides	+	0.2m	YA15.04	
	Rhynchosia minima var. australis	+	CL	YA05.07	
	Sclerolaena cornishiana	+	0.2m	YA13.01	
	Sclerolaena cornishiana	+	0.2m	YA13.01	
	Sida aff. fibulifera (FMG 125-20)	1%	0.2m	YA11.03	
	Solanum lasiophyllum	+	0.5m	YA01.26	
	Tephrosia aff. supina (MET 12,357)	+	0.1m	YA11.02	
	Tribulus occidentalis	+	<0.1m	YA15.06	

VC: Recorded within the vegetation community.  
OP: Out of plot.

<b>Site</b>	YA16		
<b>Described Season</b>	KM	<b>Date</b>	4/17/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 292.		
<b>MGA</b>	50	733748 <b>mE</b>	7499783 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Acacia citrinoviridis, Acacia aneura var. intermedia, Acacia synchronicia, Acacia sclerosperma subsp. sclerosperma open scrub over Acacia pruinocarpa open shrubland over Cenchrus ciliaris open tussock grassland over Aerva javanica, Portulaca oleracea very open hermland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure and cattle. The railway access road runs through the		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 60%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aneura var. intermedia	10%	4.5m	YA16.01	
	Acacia citrinoviridis	20%	5.0m	YA16.12	
	Acacia inaequilatera	+	2.0m	YA01.25	
	Acacia pruinocarpa	5%	1.5m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	1%	2.5m	YA16.06	
	Acacia synchronicia	1%	2.5m	YA05.15	
	Aerva javanica	1%	0.3m	YA08.01	
	Amyema fitzgeraldii	+	0.4m	YAOP05TE	OSH.
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Cenchrus ciliaris	20%	0.4m	YA01.31	
	Chrysopogon fallax	+	0.2m	YA05.04	
	Cleome viscosa	+	<0.1m	YA01.18	
	Corchorus tridens	+	<0.1m	YA16.09	Edge of plot.
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Eragrostis xerophila	+	0.1m	YA16.08	
	Eremophila lanceolata	+	0.1m	YA16.07	
	Euphorbia australis (mid-green form)	+	<0.1m	YA16.02b	
	Goodenia prostrata	+	<0.1m	YA16.10	
	Gossypium australe (Burrup Peninsula form)			YA16.01a	
	Indigofera colutea	+	<0.1m	YA14.03	
	Ipomoea muelleri	+	<0.1m	YA16.03	
	Portulaca oleracea	1%	<0.1m	YA01.14	
	Psyrax latifolia	+	0.1m	YA12.10	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Sclerolaena cornishiana	+	0.1m	YA10.13	
	Senna artemisioides subsp. oligophylla	+	<0.1m	YA16.02a	
	Sida aff. fibulifera (oblong; MET 15 220)	+	<0.1m	YA16.05	
	Sporobolus australasicus	+	<0.1m	YA02.06	
	Streptoglossa bubakii	+	<0.1m	YA16.04	

OSH: Obligate stem hemiparasite.

**Site** YA17  
**Described** TE **Date** 4/17/2008 **Type** Q **25 x 100m**  
**Season** **Uniformity**  
**Location** Chainage 290.  
**MGA** 50 **732484 mE** **7500645 mN**  
**Habitat** Plain.  
**Soil** Red, brown loamy clay.  
**Rock** Ferrous rock.  
**Vegetation** Acacia pruinocarpa low woodland over Acacia inaequilatera, Acacia synchronicia high open shrubland over Cenchrus ciliaris, Chrysopogon fallax tussock grassland.  
**Veg** Poor to very poor. Area disturbed by infrastructure, cattle and weeds.  
**Fire** Moderate.  
**Notes** Bare ground: 35%.  
 Litter cover: Logs: +. Twigs: +. Lvs: +.  
 Soil at the site was very dry.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia citrinoviridis	+		3.0m	YAR05.01	VC (OP).
	Acacia inaequilatera	2%		2.0-3.0m	YA01.25	
	Acacia pruinocarpa	15%		6.0-8.0m	YA04.01	
	Acacia synchronicia	+		0.6m	YA05.15	
	Acacia synchronicia	1%		2.0-3.0m	YA05.15	
	Aerva javanica	+		1.0m	YA08.01	
	Boerhavia coccinea	+		<0.2m	YA15.07	
	Cenchrus ciliaris	60%		0.5m	YA01.31	
	Chrysopogon fallax	2%		0.5m	YA05.04	
	Cleome viscosa	+		0.2m	YA01.18	
	Corchorus tectus	+		0.2m	YA01.04	
	Dactyloctenium radulans	+		<0.1m	YA02.10	
	Enneapogon polyphyllus	+		0.1m	YA07.05	
	Eragrostis aff. eriopoda (WAS site 963)	+		0.4m	YA01.06	
	Eragrostis xerophila	+		0.2m	YA13.07	
	Eremophila lanceolata	+		0.2m	YA17.01	
	Hakea lorea subsp. lorea	+		3.0m	YA03.12	VC (OP).
	Hakea lorea subsp. lorea	+		3.0m	YA02.15	
	Portulaca oleracea	+		<0.1m	YA01.14	
	Rhagodia eremaea	+		1.2m	YA05.08	
	Rhynchosia minima var. australis	+		CL	YA05.07	
	Solanum lasiophyllum	+		0.6m	YA01.26	
	Sporobolus australasicus	+		<0.1m	YA02.06	

VC: Recorded within the vegetation community.  
 OP: Out of plot.

**Site** YA18

**Described** TE **Date** 4/17/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location** Chainage 289 near bridge.

**MGA** 50 **mE** 731751 **mN** 7501297

**Habitat** Drainage line edge.

**Soil** Eroded red, brown loamy clay with small ironstones on the soil surface. Cobbles, pebbles, sand and gravel was present in the river bed.

**Rock** Ferrous rock and silicate.

**Vegetation** Eucalyptus victrix, Eucalyptus xerothermica, Acacia citrinoviridis, Acacia pruinocarpa low open woodland over Cenchrus ciliaris very open tussock grassland.

**Veg** Poor. Area affected by weeds, earthworks and rubbish (scrap metal).

**Fire** Old.

**Notes** Aspect: Slight NE.  
Bare ground: 30%.  
Litter cover: Logs: +. Twigs: +. Lvs: 10%.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia citrinoviridis	5%		6.0-8.0m	YAR05.01	
	Acacia pruinocarpa	1%		1.0-6.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	+		3.0m	YA02.22	
	Acacia synchronicia	+		3.0m	YA05.15	
	Aerva javanica	+		0.6m	YA08.01	
	Atalaya hemiglauca	+		3.0m	YA09.03	
	Capparis spinosa var. nummularia	+		1.0m	YA18.03	
	Cenchrus ciliaris	5%		0.5m	YA01.31	
	Cleome viscosa	+		8.0m	YA01.18	
	Eucalyptus victrix	5%		8.0-10.0m	YA18.02	
	Eucalyptus xerothermica	1%		6.0m	YA46.06	
	Euphorbia coghlanii	+		<0.1m	YA15.03	
	Euphorbia sp. (FMLMC-10)	+		<0.1m	YA18.03a	
	Hakea lorea subsp. lorea	+		3.0m	YA02.15	
	Rhagodia eremaea	+		1.5m	YA05.08	
	Sesbania cannabina	+		0.2m	YA18.01	
	Tephrosia aff. supina (MET 12,357)	+		0.1m	YA11.02	



**Site** YA19

**Described** TE **Date** 4/17/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location** Near Chainage 288.5.

**MGA** 50 731094 **mE** 7501793 **mN**

**Habitat** Drainage track next to the railway access road and plain.

**Soil** Red, brown loam with some clay content. Scattered cobbles and pebbles on the soil surface.

**Rock** Ferrous rock and silicate.

**Vegetation** Acacia ancistrocarpa, Acacia synchronicia high shrubland over Acacia sclerosperma subsp. sclerosperma open shrubland over Cenchrus ciliaris closed tussock grassland over Aerva javanica scattered herbs.

**Veg** Very poor. Area has been graded in the past.

**Fire** Moderate.

**Notes** Bare ground: 20%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.  
10.0m wide drainage culvert runs adjacent to the road.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	20%	2.0-3.0m	YA01.19	
	Acacia citrinoviridis	+	5.0m	YAR05.01	VC (OP).
	Acacia inaequilatera	+	1.0-2.0m	YA01.25	
	Acacia sclerosperma subsp. sclerosperma	2%	1.5m	YA02.22	
	Acacia synchronicia	10%	2.0-3.0m	YA05.15	
	Aerva javanica	1%	0.6m	YA08.01	
	Aristida holathera var. holathera	+	0.1m	YA01.01	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	80%	0.5m	YA01.31	
	Corchorus sidoides	+	0.1m	YA04.02	
	Corymbia semiclara	+	2.0m	YA01.27	Edge of plot.
	Hibiscus sturtii var. platyklamys	+	0.2m	YA11.08	
	Salsola tragus	+	0.1m	YA12.20	
	Sclerolaena cornishiana	+	0.1m	YA13.01	
	Senna artemisioides subsp. oligophylla	+	0.2m	YA11.06	
	Vachellia farnesiana	+	1.5m	YA05.06	

VC: Recorded within the vegetation community.

OP: Out of plot.

**Site** YA20

**Described** TE **Date** 4/17/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 **732306 mE** **7500765 mN**

**Habitat** Drainage line/plain.

**Soil** Red, brown sandy loam with some clay.

**Rock** Ferrous rock.

**Vegetation** Acacia inaequilatera, Cullen leucanthum open shrubland over Cenchrus ciliaris tussock grassland over Cleome viscosa, Aerva javanica very open herbland.

**Veg** Very poor. Area highly disturbed and previously graded. Area currently affected by weeds, cattle and rubbish.

**Fire** Moderate.

**Notes** Bare ground: 40%.  
 Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia ancistrocarpa	+		2.0m	YA01.19	
	Acacia dictyophleba	+		0.6m	YA04.03	VC (OP).
	Acacia inaequilatera	1%		1.0-2.0m	YA01.25	
	Acacia pruinocarpa	+		1.0m	YA04.OP1	VC (OP).
	Acacia synchronicia	+		0.6m	YA05.15	
	Aerva javanica	1%		1.0m	YA08.01	
	Aristida holathera var. holathera	+		0.2m	YA04.04	
	Aristida inaequiglumis	+		0.5m	YA01.10	
	Cenchrus ciliaris	54%		0.6m	YA01.31	
	Chloris pectinata	+		0.1m	YA07.06	
	Cleome viscosa	1%		0.2m	YA01.18	
	Corchorus tectus	+		0.3m	YA01.04	
	Cullen leucanthum	2%		0.5-2.0m	YAR02.01	
	Dactyloctenium radulans	+		<0.1m	YA02.10	
	Gossypium robinsonii	+		2.0m	YAOP13TE	VC (OP).
	Indigofera colutea	+		0.1m	YA13.05	
	Indigofera linifolia	+		0.1m	YA11.05	
	Ipomoea muelleri	+		CL	YA13.08	
	Iseilema eremaeum	+		0.1m	YA07.04	
	Mukia maderaspatana	+		CL	YA01.29	
	Phyllanthus maderaspatensis	+		0.1m	YA20.01	
	Salsola tragus	+		0.1m	YA12.20	
	Senna notabilis	+		0.2m	YA01.08	VC (OP).
	Sporobolus australasicus	+		<0.1m	YA02.06	

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA21		
<b>Described Season</b>	TE	<b>Date</b>	4/17/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Near Chainage 293.		
<b>MGA</b>	50	734865 <b>mE</b>	7499039 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with some clay content. Cobbles and pebbles scattered on the soil surface.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Eucalyptus xerothermica, Acacia pruinocarpa low open woodland over Acacia synchronicia, Acacia inaequilatera shrubland over Cenchrus ciliaris tussock grassland over Aerva javanica scattered herbs.		
<b>Veg</b>	Poor. Area affected by infrastructure, cattle, rubbish and fibre optic line runs through part of the plot.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 20%. Litter cover: Logs: +. Twigs: +. Lvs: +. Small vegetation strip above the drain line Crotalaria community.		

#### SPECIES

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	+		0.2m	YA21.02	
	Abutilon otocarpum	+		0.2m	YA21.05	VC (OP).
	Acacia aff. aneura (narrow fine veined; site 1259)	+		2.0m	YA21.01	
	Acacia citrinoviridis	+		1.0m	YAR02.03	
	Acacia inaequilatera	1%		2.0m	YA01.25	
	Acacia pruinocarpa	5%		5.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	+		3.0m	YA02.22	
	Acacia synchronicia	10%		2.0-3.0m	YA05.15	
	Aerva javanica	1%		0.8m	YA08.01	
	Aristida holathera var. holathera	+		0.2m	YA01.01	
	Boerhavia coccinea	+		<0.1m	YA15.07	
	Cenchrus ciliaris	70%		0.5m	YA01.31	
	Chrysopogon fallax	+		0.3m	YA05.04	
	Corchorus tectus	+		0.2m	YA01.04	
	Cullen leucochaetes	+		1.0m	YA21.04	VC (OP).
	Dactyloctenium radulans	+		0.1m	YA02.10	
	Eragrostis xerophila	+		0.5m	YA13.07	
	Eucalyptus xerothermica	+		8.0m	YA46.06	VC (OP).
	Euphorbia australis (mid-green form)	+		<0.1m	YA01.13	VC (OP).
	Hakea lorea subsp. lorea	+		2.0m	YA21.03	
	Indigofera colutea	+		0.2m	YA13.05	
	Indigofera linifolia	+		0.2m	YA11.05	
	Indigofera linifolia	+		0.1m	YA11.05	VC (OP).
	Malvastrum americanum	+		0.1m	YAOP1	
	Rhynchosia minima var. australis	+		CL	YA05.07	VC (OP).
	Sclerolaena cornishiana	+		0.2m	YA13.01	
	Senna artemisioides subsp. oligophylla	+		0.1m	YA11.06	
	Senna notabilis	+		0.3m	YA01.08	
	Solanum lasiophyllum	+		0.4m	YA01.26	

VC: Recorded within the vegetation community.

OP: Out of plot.

**Site** YA22

**Described** TE **Date** 4/18/2008 **Type** Q **Uniformity** 10 x 250m

**Season**

**Location** Chainage 295.

**MGA** 50 736617 **mE** 7497968 **mN**

**Habitat** Plain.

**Soil** Red, brown loam with high clay content (cracking).

**Rock** Ferrous rock and silicate.

**Vegetation** Corymbia hamersleyana scattered low trees over Acacia pruinocarpa, Acacia sclerosperma subsp. sclerosperma shrubland over Cenchrus ciliaris, Chrysopogon fallax tussock grassland.

**Veg** Poor. Area disturbed by weeds, cattle and infrastructure.

**Fire** Moderate.

**Notes** Bare ground: 30%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia citrinoviridis	+		1.0m	YAR02.03	
	Acacia inaequilatera	+		2.0m	YA01.25	
	Acacia pruinocarpa	1%		8.0m	YA04.01	
	Acacia pruinocarpa	3%		1.5-2.5m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	10%		1.5-2.5m	YA02.22	
	Acacia synchronicia	+		0.6m	YA05.15	
	Aerva javanica	+		0.6m	YA08.01	
	Boerhavia coccinea	+		<0.1m	YA15.07	
	Boerhavia coccinea	+		<0.1m	YA03.16	
	Cenchrus ciliaris	45%		0.5m	YA01.31	
	Chrysopogon fallax	2%		0.3m	YA05.04	
	Cleome viscosa	+		0.3m	YA01.18	
	Corchorus tridens	+		0.1m	YA22.01	
	Corymbia hamersleyana	+		8.0m	YA24.03	VC (OP).
	Enneapogon polyphyllus	+		<0.1m	YA50.08	
	Eragrostis aff. eriopoda (WAS site 963)	+		0.5m	YA01.06	
	Hakea lorea subsp. lorea	+		6.0m	YA02.15	VC (OP).
	Indigofera linifolia	+		0.2m	YA11.05	
	Ipomoea muelleri	+		CL	YA13.08	
	Iseilema eremaeum	+		0.1m	YA07.04	
	Portulaca oleracea	+		<0.1m	YA01.14	
	Rhagodia eremaea	+		0.8m	YA05.08	
	Rhynchosia minima var. australis	+		CL	YA05.07	
	Salsola tragus	+		0.1m	YA12.20	
	Sclerolaena cornishiana	+		0.2m	YA03.14	
	Tribulus occidentalis	+		<0.1m	YA15.06	

VC: Recorded within the vegetation community.

OP: Out of plot.



<b>Site</b>	YA23		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			10 x 250m
<b>Location</b>	Chainage 297.		
<b>MGA</b>	50	737921 <b>mE</b>	7497169 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with clay content.		
<b>Rock</b>	Ferrous rock.		
<b>Vegetation</b>	Hakea lorea subsp. lorea, Atalaya hemiglauca, Acacia sclerosperma subsp. sclerosperma, Acacia citrinoviridis, Cullen leucanthum open heath over Acacia synchronicia low open shrubland over Cenchrus ciliaris, Chrysopogon fallax, Bothriochloa bladhii closed tussock grassland over Aerva javanica scattered herbs.		
<b>Veg</b>	Poor. Area disturbed by infrastructure, cattle, rubbish and an earth mound.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 10%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia citrinoviridis	10%	2.0m	YA23.11	
	Acacia dictyophleba	+	0.5m	YA04.03	
	Acacia inaequilatera	+	2.0m	YA01.25	VC (OP).
	Acacia sclerosperma subsp. sclerosperma	30%	2.0m	YA23.08	
	Acacia synchronicia	3%	0.5m	YA05.15	
	Aerva javanica	1%	0.5m	YA08.01	
	Atalaya hemiglauca	5%	1.5m	YA23.06	
	Boerhavia repleta	+	<0.1m	YA12.05	
	Bothriochloa bladhii	1%	0.4m	YA23.01	
	Cenchrus ciliaris	90%	0.4m	YA01.31	
	Chrysopogon fallax	1%	0.3m	YA05.04	
	Cleome viscosa	+	0.1m	YA23.07	
	Corchorus tectus	+	0.2m	YA01.04	
	Cullen leucanthum	1%	1.5m	YA14.02	
	Enneapogon polyphyllus	+	<0.1m	YA42.01	
	Euphorbia coghlanii	+	0.1m	YA11.04	
	Evolvulus alsinoides var. villosicalyx	+	<0.1m	YA23.05	
	Hakea lorea subsp. lorea	1%	3.0m	YA23.12	
	Hakea lorea subsp. lorea	7%	2.0m	YA03.12	
	Indigofera colutea	+	0.1m	YA14.03	
	Indigofera linifolia	+	0.1m	YA23.02	
	Malvastrum americanum	+	0.1m	YAOP1	
	Perotis rara	+	<0.1m	YA06.15	
	Pterocaulon sphaeranthoides	+	0.1m	YA23.04	
	Rhynchosia minima var. australis	+	CR	YA23.03	
	Rhynchosia minima var. australis	+	<0.1m	YA23.09	
	Sclerolaena cornishiana	+	<0.1m	YA10.13	
	Sida aff. fibulifera (B64-13B)	+	<0.1m	YA23.10	

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA24		
<b>Described Season</b>	TE	<b>Date</b>	4/18/2008 <b>Type</b> Q
			10 x 250m
		<b>Uniformity</b>	
<b>Location</b>	Near Chainage 299.		
<b>MGA</b>	50	740282 <b>mE</b>	7496012 <b>mN</b>
<b>Habitat</b>	Plain/floodplain.		
<b>Soil</b>	Red, brown sandy loam with some clay areas. Few scattered cobbles and pebbles on the soil surface.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Corymbia hamersleyana, Acacia pruinocarpa low open woodland over Acacia dictyophleba, Acacia bivenosa, Acacia aff. aneura (narrow fine veined; site 1259), Hakea lorea subsp. lorea high shrubland over Senna artemisioides subsp. oligophylla low scattered shrubs over Triodia pungens open hummock grassland over Cenchrus ciliaris tussock grassland over Aerva javanica scattered herbs.		
<b>Veg</b>	Poor to good. Area disturbed by cattle, infrastructure and weeds.		
<b>Fire</b>	Moderate to old.		
<b>Notes</b>	Bare ground: 20%. Litter coverL Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	4.0m	YA24.02	
	Acacia bivenosa	8%	2.0m	YA43.03	
	Acacia dictyophleba	8%	2.0-3.0m	YA04.03	
	Acacia pruinocarpa	10%	3.0-8.0m	YA04.01	
	Aerva javanica	1%	1.0m	YA08.01	
	Aerva javanica	+	1.0m	YA08.01	
	Aristida holathera var. holathera	+	0.2m	YA01.01	
	Aristida holathera var. holathera	+	0.1m	YA04.04	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	70%	0.5m	YA01.31	
	Corchorus sidoides	+	0.2m	YA04.02	
	Corchorus tectus	+	0.2m	YA01.04	VC (OP).
	Corymbia hamersleyana	1%	8.0m	YA24.03	
	Cullen leucanthum	+	0.5m	YAR02.01	
	Cullen leucanthum	+	1.0m	YAR02.01	
	Dactyloctenium radulans	+	0.1m	YA02.10	
	Enneapogon caerulescens var. caerulescens	+	0.1m	YA24.04	
	Enneapogon caerulescens var. caerulescens	+	0.1m	YA24.06	VC (OP).
	Enneapogon polyphyllus	+	0.1m	YA50.08	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.5m	YA01.06	
	Eriachne aristidea	+	0.1m	YA01.22	VC (OP).
	Eulalia aurea	+	0.5m	YA01.28	VC (OP).
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Hakea lorea subsp. lorea	1%	4.0m	YA03.12	
	Hakea lorea subsp. lorea	+	6.0m	YA02.15	
	Indigofera colutea	+	0.1m	YA13.05	
	Indigofera linifolia	+	0.1m	YA11.05	
	Rhynchosia minima var. australis	+	CL	YA05.07	
	Salsola tragus	+	0.2m	YA12.20	
	Senna artemisioides subsp. oligophylla	1%	0.5m	YA24.05	
	Sporobolus australasicus	+	<0.1m	YA02.06	

Tephrosia aff. supina (MET 12,357)	+	0.1m	YA11.02	VC (OP).
Tribulus occidentalis	+	<0.1m	YA15.06	
Triodia pungens	20%	0.5m	YA24.01	

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA25		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			10 x 250m
<b>Location</b>	Chainage 301.		
<b>MGA</b>	50	742171 <b>mE</b>	7495257 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with some clay and scattered rocks.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia paraneura low scattered trees over Acacia pruinocarpa, Acacia aff. aneura (narrow fine veined; site 1259) high open shrubland over Acacia ancistrocarpa, Acacia synchronicia, Acacia dictyophleba open shrubland over Senna artemisioides subsp. oligophylla low open shrubland over Cenchrus ciliaris, Eulalia aurea, Chrysopogon fallax closed tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure, cattle and an earth mound.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 10%. Litter cover: Logs: 1%. Twigs: 1%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.2m	YA25.16	TT.
	Abutilon lepidum	+	0.1m	YA25.07a	
	Acacia aff. aneura (narrow fine veined; site 1259)	4%	5.0m	YA25.22	
	Acacia ancistrocarpa	3%	1.0m	YA30.01	
	Acacia citrinoviridis	+	0.5m	YAR05.01	
	Acacia dictyophleba	1%	1.5m	YA04.03	VC (EOP).
	Acacia paraneura	1%	6.0m	YA25.24	
	Acacia pruinocarpa	5%	4.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	+	0.5m	YA03.10	
	Acacia synchronicia	3%	2.0m	YA05.15	
	Acacia tetragonophylla	+	1.5m	YA25.23	
	Aerva javanica	+	0.3m	YA08.01	
	Alternanthera angustifolia	+	<0.1m	YA25.13	
	Bulbostylis burbridgeae	+	0.1m	YA25.08a	
	Calandrinia Ptychosperma	+	<0.1m	YA25.26	
	Cenchrus ciliaris	40%	0.4m	YA01.31	
	Chloris pectinata	+	<0.1m	YA07.06	
	Chloris pectinata	+	<0.1m	YA07.06	
	Chloris pumilio	+	0.2m	YA10.14	
	Chrysopogon fallax	7%	0.5m	YA05.04	
	Cleome viscosa	+	0.1m	YA01.18	
	Corchorus tectus	+	0.1m	YA01.04	
	Corchorus tectus	+	<0.1m	YA25.14	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Dichanthium sericeum subsp. humilium	+	<0.1m	YA10.16b	
	Duperreya commixta	+	CR	YA67.15	
	Eragrostis cumingii	+	<0.1m	YA25.12	
	Eragrostis cumingii	+	<0.1m	YA25.27	
	Eremophila longifolia	+	1.0m	YAOP02.1	
	Eulalia aurea	+	0.4m	YA25.04	
	Eulalia aurea	40%	0.5m	YA25.01	
	Euphorbia coghlanii	+	<0.1m	YA11.04	
	Euphorbia coghlanii	+	<0.1m	YA25.11	



<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>	+	0.1m	YA23.05
<i>Flaveria australasica</i>	+	0.1m	YA25.29
<i>Gomphrena affinis</i> subsp. <i>pilbarensis</i>	+	<0.1m	YA10.12
<i>Goodenia prostrata</i>	+	<0.1m	YA25.19
<i>Hakea lorea</i> subsp. <i>lorea</i>	+	2.0m	YA02.15
<i>Hibiscus sturtii</i> var. <i>platychlams</i>	+	0.3m	YA25.28
<i>Indigofera linifolia</i>	+	0.1m	YA11.05
<i>Iseilema eremaeum</i>	+	<0.1m	YA25.08
<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04
<i>Malvastrum americanum</i>	+	0.1m	YAOP1
<i>Mukia maderaspatana</i>	+	CR	YA03.03
<i>Nicotiana occidentalis</i> subsp. <i>occidentalis</i>	+	0.15m	YA25.02
<i>Paspalidium constrictum</i>	+	<0.1m	YA10.05
<i>Perotis rara</i>	+	0.1m	YA02.01
<i>Perotis rara</i>	+	<0.1m	YA06.15
<i>Phyllanthus erwinii</i>	+	0.1m	YA25.03
<i>Portulaca oleracea</i>	+	<0.1m	YA25.20
<i>Portulaca oleracea</i>	+	<0.1m	YA01.14
<i>Psydrax latifolia</i>	+	0.5m	YA25.05
<i>Psydrax latifolia</i>	+	0.5m	YA25.21
<i>Pterocaulon sphaeranthoides</i>	+	<0.1m	NC
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CR	YA28.05
<i>Salsola tragus</i>	+	<0.1m	YA12.20
<i>Sclerolaena cornishiana</i>	+	0.15m	YA10.13
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	<0.1m	YA11.06
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	2%	0.4m	YA25.09a
<i>Senna notabilis</i>	+	<0.1m	YA01.08
<i>Setaria verticillata</i>	+	0.3m	YA25.07
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	+	<0.1m	YA25.09b
<i>Sporobolus australasicus</i>	+	0.1m	YA02.06
<i>Streptoglossa bubakii</i>	+	<0.1m	YA25.06
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)	+	<0.1m	YA25.15
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)	+	0.1m	YA25.18
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.1m	YA25.25
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.1m	YA25.17
<i>Triodia pungens</i>	+	0.2m	YA25.30
<i>Triodia pungens</i>	+	0.2m	YA25.10

TT: Thinner tomentum.

VC: Recorded within the vegetation community.

EOP: Edge of plot.

<b>Site</b>	YA26		
<b>Described Season</b>	TE	<b>Date</b>	4/18/2008 <b>Type</b> Q
			10 x 250m
<b>Location</b>	Chainage 303.5.		
<b>MGA</b>	50	744237 <b>mE</b>	7494441 <b>mN</b>
<b>Habitat</b>	Mulga plain.		
<b>Soil</b>	Red, brown sandy loam with tiny ironstones.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259) low woodland over Acacia synchronicia high open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Dactyloctenium radulans, Dichanthium sericeum subsp. humilium, Aristida holathera var. holathera, Eulalia aurea, Perotis rara tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by weeds, infrastructure and cattle.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 50%. Litter cover: Logs: +. Twigs: +. Lvs: 1%.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.1m	YA26.19	TT.
	Acacia aff. aneura (narrow fine veined; site 1259)	30%	6.0-10.0m	YA26.01	
	Acacia ancistrocarpa	+	2.0m	YA30.01	
	Acacia dictyophleba	+	1.0m	YA04.03	
	Acacia inaequilatera	+	3.0m	YA01.25	
	Acacia marramamba	+	2.0m	D17	
	Acacia pruinocarpa	+	6.0m	YA04.01	
	Acacia synchronicia	5%	3.0m	YA50.04	
	Acacia tetragonophylla	+	0.2m	YA70.03	
	Aerva javanica	+	0.1m	YA08.01	
	Aristida holathera var. holathera	2%	0.1m	YA01.01	
	Boerhavia coccinea	+	<0.1m	YA03.16	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Calandrinia Ptychosperma	+	<0.1m	YA26.08	
	Cenchrus ciliaris	30%	0.5m	YA01.31	
	Chloris virgata	+	0.3m	YA26.16	
	Chrysopogon fallax	+	0.5m	YA05.04	
	Cleome viscosa	+	0.2m	YA01.18	
	Corchorus sidoides	+	0.2m	YA04.02	
	Corchorus tectus	+	0.3m	YA01.04	
	Dactyloctenium radulans	3%	<0.1m	YA02.10	
	Dichanthium sericeum subsp. humilium	2%	<0.1m	YA26.05	
	Enneapogon caeruleus var. caeruleus	+	0.1m	YA26.21	
	Enneapogon polyphyllus	+	0.1m	YA50.08	
	Eragrostis xerophila	+	0.4m	YA13.07	
	Eremophila lanceolata	+	1.0m	YA26.13	
	Eriachne aristidea	+	0.1m	YA01.22	
	Eulalia aurea	1%	0.4m	YA01.28	
	Euphorbia coghlanii	+	0.1m	YA26.11	
	Euphorbia coghlanii	+	0.1m	YA15.03	
	Gomphrena affinis subsp. pilbarensis	+	<0.1m	YA26.06	
	Gomphrena kanisii	+	0.1m	YA13.13	
	Goodenia prostrata	+	<0.1m	YA26.07	
	Hibiscus sturtii var. aff. grandiflorus	+	0.3m	YA26.15	

<i>Hibiscus sturtii</i> var. <i>platyklamys</i>	+	0.5m	YA26.03
<i>Indigofera colutea</i>	+	0.1m	YA13.05
<i>Indigofera linifolia</i>	+	0.1m	YA11.05
<i>Indigofera linifolia</i>	+	0.2m	YA11.05
<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04
<i>Maireana planifolia</i>	+	1.0m	YA26.22
<i>Mukia maderaspatana</i>	+	CL	YA01.29
<i>Paspalidium rarum</i>	+	0.1m	YA26.14
<i>Perotis rara</i>	1%	<0.1m	YA02.01
<i>Phyllanthus erwinii</i>	+	<0.1m	YA26.04
<i>Phyllanthus erwinii</i>	+	<0.1m	YA26.04
<i>Portulaca oleracea</i>	+	0.1m	YA01.14
<i>Psydrax latifolia</i>	+	1.0m	YA26.23
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	0.1m	YA01.32
<i>Ptilotus helipteroides</i> var. <i>helipteroides</i>	+	<0.1m	YA13.02
<i>Ptilotus macrocephalus</i>	+	0.1m	YA26.10
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.5m	YA26.20
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CL	YA05.07
<i>Sclerolaena cornishiana</i>	+	0.2m	YA03.14
<i>Sclerolaena cornishiana</i>	+	0.2m	YA26.17
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA30.18
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA26.12
<i>Senna notabilis</i>	+	0.2m	YA01.08
<i>Sida platycalyx</i>	+	0.2m	YA04.10
<i>Sida</i> sp.	+	0.5m	YA26.24
<i>Solanum lasiophyllum</i>	+	0.4m	YA01.26
<i>Sporobolus australasicus</i>	+	0.1m	YA02.06
<i>Triodia pungens</i>	10%	0.5m	YA26.09
<i>Waltheria indica</i>	+	0.3m	YA26.18

TT: Thinner tomentum.

<b>Site</b>	YA27		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			10 x 250m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 305.5.		
<b>MGA</b>	50	746376 <b>mE</b>	7493614 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with rocks and pebbles.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259), Hakea lorea subsp. lorea closed scrub over Acacia ancistrocarpa, Acacia tetragonophylla open shrubland over Senna artemisioides subsp. oligophylla, Senna artemisioides subsp. helmsii low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris tussock grassland over Cleome viscosa scattered herbs.		
<b>Veg</b>	Poor. Area disturbed by infrastructure, an earth mound, rubbish and cattle (evidence of grazing). A graded strip also runs through the plot.		
<b>Fire</b>	Moderate to old.		
<b>Notes</b>	Bare ground: 70%. Litter cover: Logs: 1%. Twigs: 1%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Abutilon macrum	+	<0.1m	YA27.03
	Acacia aff. aneura (narrow fine veined; site 1259)	70%	4.5m	YA27.02
	Acacia aff. aneura (narrow fine veined; site 1259)	+	0.4m	YA27.12
	Acacia ancistrocarpa	3%	1.6m	YA30.01
	Acacia inaequilatera	+	1.0m	YA01.25
	Acacia pruinocarpa	+	4.5m	YA27.15
	Acacia tetragonophylla	1%	0.5-2.0m	YA25.23
	Aristida holathera var. latifolia	+	0.3m	YA27.01
	Cenchrus ciliaris	40%	0.4m	YA01.31
	Cheilanthes sieberi subsp. sieberi	+	<0.1m	YA27.09
	Chenopodium melanocarpum forma	+	<0.1m	YA27.04
	Chloris pumilio	+	0.15m	YA10.14
	Chrysopogon fallax	+	0.4m	YA05.04
	Cleome viscosa	1%	0.3m	YA01.18
	Corchorus sidoides	+	0.1m	YA04.02
	Corchorus tectus	+	0.2m	YA01.04
	Dactyloctenium radulans	+	<0.1m	YA02.10
	Digitaria ctenantha	+	<0.1m	YA27.06
	Duperreya commixta	+	CR	YA03.06
	Enchylaena tomentosa var. tomentosa	+	2.0m	YA27.07
	Enneapogon polyphyllus	+	<0.1m	YA42.01
	Eragrostis cumingii	+	<0.1m	YA25.27
	Euphorbia coghlanii	+	<0.1m	YA11.04
	Evolvulus alsinoides var. villosicalyx	+	<0.1m	YA23.05
	Gomphrena affinis subsp. pilbarensis	+	0.1m	YA10.12
	Gomphrena cunninghamii	+	<0.1m	YA27.13
	Goodenia prostrata	+	<0.1m	YA25.19



Hakea lorea subsp. lorea	1%	4.5m	YA02.15
Indigofera monophylla (brown calyx form)	+	0.2m	YA27.17
Mukia maderaspatana	+	CR	YA03.03
Paspalidium constrictum	+	<0.1m	YA10.05
Perotis rara	+	<0.1m	YA06.15
Portulaca oleracea	+	<0.1m	YA25.20
Pterocaulon sphaeranthoides	+	<0.1m	YA27.05
Ptilotus gaudichaudii var. gaudichaudii	+	<0.1m	YA27.08
Rhynchosia minima var. australis	+	<0.1m	YA28.05
Senna artemisioides subsp. helmsii	2%	0.4m	YA27.10
Senna artemisioides subsp. oligophylla	2%	1.0m	YA27.11
Senna notabilis	+	<0.1m	YA01.08
Sida aff. fibulifera (FMG 125-20)	+	<0.1m	YA27.14
Triodia pungens	4%	0.4m	YA29.30

<b>Site</b>	YA28		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			10 x 250m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 297.5.		
<b>MGA</b>	50	738921	mE 7496563 mN
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered rocks.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia aneura var. intermedia, Acacia citrinoviridis, Corymbia hamersleyana low woodland over Acacia sclerosperma subsp. sclerosperma, Hakea lorea subsp. lorea high open shrubland over Eremophila longifolia, Abutilon aff. lepidum (1) (MET 15 352) open shrubland over Acacia pruinocarpa, Acacia synchronicia low shrubland over Cenchrus ciliaris closed tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by cattle, weeds and infrastructure.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 10%. Litter cover: Logs: 2%. Twigs: 2%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	1%	1.0m	YA28.13	
	Acacia aneura var. intermedia	5%	6.0m	YA28.04	
	Acacia citrinoviridis	15%	7.0m	YA28.14a	
	Acacia inaequilatera	+	1.5m	YA01.25	
	Acacia pruinocarpa	15%	0.4m	YA04.01	
	Acacia pruinocarpa	+	0.2m	YA04.01	Sapling.
	Acacia sclerosperma subsp. sclerosperma	4%	4.0m	YA23.08	
	Acacia synchronicia	1%	0.2m	YA05.15	
	Aerva javanica	+	<0.1m	YA28.09	
	Aerva javanica	+	0.5m	YA08.01	
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Boerhavia repleta	+	<0.1m	YA12.05	
	Cenchrus ciliaris	90%	0.5m	YA01.31	
	Chrysopogon fallax	+	0.3m	YA05.04	
	Chrysopogon fallax	+	0.4m	YA28.11	
	Cleome viscosa	+	0.2m	YA01.18	
	Corchorus tectus	+	0.3m	YA01.04	
	Corymbia hamersleyana	1%	5.0m	YA28.12	
	Dichanthium sericeum subsp. humilium	+	0.1m	YA10.16b	
	Duperreya commixta	+	CR	YA67.15	
	Eremophila lanceolata	+	0.3m	YA28.03	
	Eremophila longifolia	7%	1.0m	YA28.07	
	Eulalia aurea	+	0.3m	YA28.10	
	Euphorbia coghlanii	+	0.1m	YA11.04	
	Evolvulus alsinoides var. villosicalyx	+	<0.1m	YA23.05	
	Glycine canescens	+	CR	YA28.06	
	Hakea lorea subsp. lorea	1%	5.0m	YA03.12	
	Hakea lorea subsp. lorea	1%	5.0m	YA02.15	
	Indigofera colutea	+	<0.1m	YA14.03	VC (OP).
	Indigofera linifolia	+	0.1m	YA11.05	
	Ipomoea muelleri	+	0.1m	YA28.01	
	Malvastrum americanum	1%	<0.1m	YAOP1	

<i>Mukia maderaspatana</i>	+	CR	YA03.03
<i>Perotis rara</i>	+	<0.1m	YA06.15
<i>Portulaca oleracea</i>	+	<0.1m	YA01.14
<i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i>	+	<0.1m	YA28.14b
<i>Rhynchosia minima</i> var. <i>australis</i>	+	<0.1m	YA23.09
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CR	YA28.05
<i>Salsola tragus</i>	+	<0.1m	YA12.20
<i>Sclerolaena cornishiana</i>	+	0.1m	YA10.13
<i>Senna artemisioides</i> subsp. <i>helmsii</i>			YA28.12a
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	+	<0.1m	YA28.02
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06

VC: Recorded within the vegetation community.

OP: Out of plot.

**Site** YA30

**Described** TE **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location** Chainage 307.

**MGA** 50 **747755 mE** **7493062 mN**

**Habitat** Highly disturbed plain.

**Soil** Red, brown loam with a pavement of cobbles and pebbles.

**Rock** Ferrous rock, calcrete and silicate.

**Vegetation** Acacia aneura var. pilbarana, Acacia pruinocarpa, Acacia ancistrocarpa, Acacia synchronicia, Acacia bivenosa high shrubland over Cenchrus ciliaris, Perotis rara, Dactyloctenium radulans, Eulalia aurea open tussock grassland.

**Veg** Poor. Area disturbed by weeds, clearing, infrastructure and cattle.

**Fire** Old.

**Notes** Bare ground: 70%  
Litter cover: Logs: +. Twigs: 1%. Lvs: +.  
High level of disturbance.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (1) (MET 15 352)	+	1.0m	YA30.09	
	Acacia ancistrocarpa	+	1.5m	YA01.19	VC (OP).
	Acacia ancistrocarpa	10%	3.0m	YA30.01	
	Acacia aneura var. pilbarana	5%	5.0m	YA30.07	
	Acacia bivenosa	1%	3.0m	YA43.03	
	Acacia citrinoviridis	+	0.1m	YA28.14	
	Acacia pruinocarpa	3%	3.0-6.0m	YA04.01	
	Acacia synchronicia	1%	2.0m	YA05.15	
	Acacia tetragonophylla	+	2.0m	YA70.03	
	Anthobolus leptomerioides	+	2.0m	YA42.08	VC (OP).
	Aristida holathera var. holathera	+	0.1m	YA01.01	
	Aristida ingrata	+	0.5m	YA30.02	
	Bidens bipinnata	+	0.1m	YA30.12	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	20%	0.5m	YA01.31	
	Chloris pectinata	+	0.3m	YA07.06	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus sidoides	+	0.4m	YA04.02	
	Corchorus tectus	+	0.3m	YA01.04	
	Corymbia semiclara	+	5.0m	YA01.27	VC (OP).
	Dactyloctenium radulans	1%	<0.1m	YA02.10	
	Dodonaea petiolaris	+	1.0m	YA30.15	
	Duperreya commixta	+	CL	YA67.15	
	Enneapogon polyphyllus	+	<0.1m	YA30.06	
	Eremophila forrestii subsp. forrestii	+	1.0m	YA30.17	
	Eulalia aurea	1%	0.5m	YA01.28	
	Euphorbia coghlanii	+	0.2m	YA11.04	
	Euphorbia coghlanii	+	0.3m	YA30.10	
	Gomphrena cunninghamii	+	0.3m	YA30.08	
	Goodenia prostrata	+	<0.1m	YA26.02	
	Indigofera georgei	+	1.0m	YA30.13	
	Indigofera linifolia	+	0.1m	YA11.05	
	Ipomoea muelleri	+	CL	YA13.08	



<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04
<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04
<i>Mukia maderaspatana</i>	+	CL	YA01.29
<i>Paspalidium clementii</i>	+	0.1m	YA30.14
<i>Perotis rara</i>	5%	<0.1m	YA02.01
<i>Phyllanthus erwinii</i>	+	CL	YA26.04
<i>Pterocaulon sphaeranthoides</i>	+	0.2m	NC
<i>Ptilotus astrolasius</i> var. <i>astrolasius</i>	+	0.6m	YA01.24
<i>Ptilotus gaudichaudii</i> var. <i>gaudichaudii</i>	+	0.1m	YA30.11
<i>Ptilotus helipteroides</i> var. <i>helipteroides</i>	+	0.1m	YA13.02
<i>Ptilotus macrocephalus</i>	+	0.1m	YAOP15TE
<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	0.1m	YA01.36
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CL	YA05.07
<i>Sclerolaena cornishiana</i>	+	0.2m	YA13.01
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0-2.0m	YA30.18
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	0.6m	YA26.12
<i>Senna notabilis</i>	+	0.3m	YA01.08
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)	+	0.8m	YA30.16
<i>Sida</i> sp. spiciform panicles (E. Leyland s.n. 14/8/90)	+	2.0m	YA30.04
<i>Solanum lasiophyllum</i>	+	0.6m	YA01.26
<i>Streptoglossa bubakii</i>	+	0.3m	YA30.03
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.1m	YA01.34
<i>Triodia pungens</i>	+	1.0m	YA43.02

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA31		
<b>Described Season</b>	TE	<b>Date</b>	4/18/2008 <b>Type</b> Q <span style="float: right;">25 x 100m</span>
			<b>Uniformity</b>
<b>Location</b>	Near Chainage 308.		
<b>MGA</b>	50	748561 <b>mE</b>	7492614 <b>mN</b>
<b>Habitat</b>	Degraded plain and hard clay pan.		
<b>Soil</b>	Red, brown sandy loam with cobbles and pebbles on the soil surface. Ironstones covered the hard clay pan area of the plot.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Acacia ancistrocarpa, Acacia pruinocarpa, Acacia aff. aneura (narrow fine veined; site 1259) high shrubland over Triodia pungens open hummock grassland over Cenchrus ciliaris, Enneapogon polyphyllus very open tussock grassland.		
<b>Veg</b>	Very poor. Area affected by the construction of the railway (i.e clearing), weeds and cattle.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 80%. Litter cover: Logs: +. Twigs: 1%. Lvs: +. Much of the plot was bare soil and degraded.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	2%	5.0m	YA31.01
	Acacia ancistrocarpa	6%	2.0-3.0m	YA30.01
	Acacia pruinocarpa	5%	5.0m	YA04.01
	Anthobolus leptomerioides	+	1.5m	YA42.08
	Aristida inaequiglumis	+	0.3m	YA01.10
	Boerhavia coccinea	+	<0.1m	YA03.16
	Cenchrus ciliaris	5%	0.5m	YA01.31
	Cleome viscosa	+	0.3m	YA01.18
	Corchorus sidoides	+	0.2m	YA04.02
	Corchorus tectus	+	0.5m	YA01.04
	Duperreya commixta	+	CL	YA67.15
	Enneapogon polyphyllus	1%	<0.1m	YA50.08
	Euphorbia coghlanii	+	0.3m	YA15.03
	Gomphrena cunninghamii	+	<0.1m	YA30.08
	Hibiscus sturtii var. platyklamys	+	0.3m	YA11.08
	Iseilema eremaum	+	<0.1m	YA07.04
	Perotis rara	+	<0.1m	YA02.01
	Ptilotus exaltatus var. exaltatus	+	0.1m	YA01.32
	Ptilotus exaltatus var. exaltatus	+	0.1m	YA01.32
	Salsola tragus	+	0.4m	YA12.20
	Sclerolaena cornishiana	+	0.1m	YA03.14
	Senna artemisioides subsp. oligophylla x helmsii	+	1.0m	YA26.12
	Senna glutinosa subsp. glutinosa	+	1.0m	YA43.07
	Sida platycalyx	+	0.4m	YA04.10
	Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	+	0.4m	YA30.04
	Solanum lasiophyllum	+	1.0m	YA01.26
	Triodia pungens	15%	0.3m	YA43.02

**Site** YA32

**Described** KM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location** Near Chainage 323.5.

**MGA** 50 **mE** 761546 **mN** 7484037

**Habitat** Plain.

**Soil** Red, brown loam with scattered rocks and pebbles.

**Rock** Ferrous rock, silicate and black granite.

**Vegetation** Eucalyptus gamophylla scattered low trees over Acacia sclerosperma subsp. sclerosperma, Acacia ancistrocarpa, Acacia synchronicia, Acacia dictyophleba high shrubland over Triodia pungens hummock grassland over Cenchrus ciliaris very open hummock grassland.

**Veg** Good. Area affected by infrastructure, cattle (tracks and grazing evident) and an earth mound.

**Fire** Old.

**Notes** Bare ground: 30%.  
Litter cover: Logs: +. Twigs: 1%. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon trudgenii MS	+		0.1m	YA32.09	
	Acacia ancistrocarpa	4%		2.5m	YA32.05	
	Acacia dictyophleba	1%		3.5m	YA32.11	
	Acacia pachyacra	+		2.1m	YA32.07	
	Acacia pruinocarpa	+		1.6m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	5%		2.5-4.0m	YA32.02	
	Acacia synchronicia	20%		1.5-3.0m	YA05.15	
	Acacia tetragonophylla	+		0.6m	YA70.03	
	Capparis umbonata	+		3.0m	YA32.06	
	Cenchrus ciliaris	7%		0.5-0.6m	YA01.31	
	Cleome viscosa	+		0.15m	YA01.18	
	Corchorus sidoides	+		0.1m	YA48.10	
	Corymbia hamersleyana	+		4.5m	YA32.12	
	Eragrostis sp.	+		0.15m	YA32.10	
	Eucalyptus gamophylla	+		3.0m	YA32.08	
	Euphorbia tannensis subsp. eremophila (Hamersley form)	+		0.1m	YA32.04	
	Indigofera colutea	+		<0.1m	YA14.03	
	Portulaca oleracea	+		<0.1m	YA25.20	
	Rhynchosia minima var. australis	+		CR	YA05.07	
	Senna notabilis	+		<0.1m	YA01.08	
	Tribulus occidentalis	+		<0.1m	YA32.01	
	Triodia pungens	70%		0.3m	YA32.03	

<b>Site</b>	YA33		
<b>Described Season</b>	TE	<b>Date</b>	4/20/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Near Chainage 325.		
<b>MGA</b>	50	762913 <b>mE</b>	7483125 <b>mN</b>
<b>Habitat</b>	Low lying thin band of Mulga.		
<b>Soil</b>	Red, brown loam with some areas sandy/alluvial. Ferrous stones were scattered over the soil surface. Very dry soil.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Corymbia aspera, Acacia aff. aneura (narrow fine veined; site 1259), Acacia pruinocarpa low open forest over Acacia ancistrocarpa, Acacia sclerosperma subsp. sclerosperma, Acacia tetragonophylla high open shrubland over Sida aff. fibulifera (FMG 125-20) low scattered shrubs over Triodia pungens very open hummock grassland over Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure, track and cattle.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 80%. Litter cover: Logs: +. Twigs: 1%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.1m	YA30.09
	Acacia aff. aneura (narrow fine veined; site 1259)	40%	8.0m	YA33.02
	Acacia ancistrocarpa	3%	2.0-3.0m	YA33.01
	Acacia pruinocarpa	2%	6.0m	YA04.01
	Acacia sclerosperma subsp. sclerosperma	1%	2.0-2.5m	YA61.03
	Acacia tetragonophylla	1%	3.0m	YA70.03
	Amyema fitzgeraldii	+	0.3m	YAOP05TE
	Aristida inaequiglumis	+	0.3m	YA01.10
	Boerhavia coccinea	+	<0.1m	YA03.16
	Cenchrus ciliaris	10%	0.5m	YA01.31
	Chloris pectinata	+	0.1m	YA07.06
	Chrysopogon fallax	+	0.3m	YA05.04
	Cleome viscosa	+	0.2m	YA01.18
	Corchorus tectus	+	0.2m	YA01.04
	Corymbia aspera	3%	6.0-8.0m	YA33.09
	Cucumis melo subsp. agrestis	+	CL	YA33.06
	Dactyloctenium radulans	+	<0.1m	YA02.10
	Duperreya commixta	+	CL	YA67.15
	Enchylaena tomentosa var. tomentosa	+	0.4m	YA33.03
	Enneapogon polyphyllus	+	<0.1m	YA50.08
	Eremophila longifolia	+	3.0m	YAOP02.1
	Eulalia aurea	2%	0.4m	YA01.28
	Euphorbia coghlanii	+	0.2m	YA15.03
	Goodenia triodiophila	+	0.1m	YA33.08
	Iseilema eremaeum	+	<0.1m	YA07.04
	Malvastrum americanum	+	<0.1m	NC
	Mukia maderaspatana	+	CL	YA01.29
	Paspalidium clementii	+	<0.1m	YA57.02
	Perotis rara	+	<0.1m	YA02.01
	Rhagodia eremaea	+	2.0m	YA05.08
	Rhynchosia minima var. australis	+	CL	YA05.07



Sclerolaena cornishiana	+	0.1m	YA33.04
Senna artemisioides subsp. oligophylla	+	1.5m	YA11.06
Senna notabilis	+	0.2m	YA01.08
Setaria verticillata	+	0.2m	YA33.07
Sida aff. fibulifera (FMG 125-20)	1%	0.2m	YA33.05
Solanum lasiophyllum	+	0.4m	YA01.26
Sporobolus australasicus	+	<0.1m	YA02.06
Triodia pungens	2%	0.5m	YA33.10
Triodia pungens	+	0.3m	YA46.01

<b>Site</b>	YA34		
<b>Described Season</b>	TE	<b>Date</b>	4/20/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 341.		
<b>MGA</b>	50	774037 <b>mE</b>	7472715 <b>mN</b>
<b>Habitat</b>	Plain with gentle undulations (fluvial).		
<b>Soil</b>	Very fine red, brown loam with clayey depressions and scattered cobbles and pebbles.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259), <i>Corymbia candida</i> low woodland over <i>Acacia synchronicia</i> , <i>Acacia aneura</i> var. <i>conifera</i> , <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Acacia pruinocarpa</i> , <i>Acacia ancistrocarpa</i> high shrubland over <i>Senna artemisioides</i> subsp. <i>oligophylla</i> scattered shrubs over <i>Cenchrus ciliaris</i> scattered tussock grasses.		
<b>Veg</b>	Poor to good. Area disturbed by weeds and cattle.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 96%. Litter cover: Logs: +. Twigs: +. Lvs: +. Plot very dry and denuded with highly eroded channels.		

#### SPECIES

Quad	Name	Cover C	Height	Specimen	Notes
	<i>Abutilon</i> aff. <i>lepidum</i> (4)	+	0.1m	YA34.05	
	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259)	20%	6.0m	YA34.02	
	<i>Acacia ancistrocarpa</i>	1%	2.0-3.0m	YA01.19	
	<i>Acacia aneura</i> var. <i>conifera</i>	10%	2.0m	YA34.01	
	<i>Acacia citrinoviridis</i>	+	<0.1m	YA28.14	
	<i>Acacia pruinocarpa</i>	1%	4.0m	YA04.01	
	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>	1%	2.0m	YA61.03	
	<i>Acacia synchronicia</i>	5%	3.0m	YA50.04	
	<i>Acacia tetragonophylla</i>	+	3.0m	YA70.03	
	<i>Amyema fitzgeraldii</i>	1%	0.5m	YAOP05TE	OSH.
	<i>Cenchrus ciliaris</i>	1%	0.5m	YA01.31	
	<i>Corymbia candida</i>	+	3.0m	YA34.03	VC (OP).
	<i>Cucumis melo</i> subsp. <i>agrestis</i>	+	CL	YA33.06	
	<i>Dactyloctenium radulans</i>	+	<0.1m	YA02.10	
	<i>Duperreya commixta</i>	+	CL	YA67.15	
	<i>Enneapogon polyphyllus</i>	+	<0.1m	YA50.08	
	<i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963)	+	0.1m	YA01.06	
	<i>Eremophila latrobei</i> subsp. <i>filiformis</i>	+	2.0m	YA62.02	
	<i>Hibiscus burtonii</i>	+	0.1m	YA70.06	
	<i>Ipomoea muelleri</i>	+	CL	YA13.08	
	<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04	
	<i>Malvastrum americanum</i>	+	0.1m	NC	
	<i>Paspalidium clementii</i>	+	<0.1m	YA57.02	
	<i>Portulaca oleracea</i>	+	<0.1m	YA01.14	
	<i>Psyrax latifolia</i>	+	0.5m	YA26.23	
	<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.1m	YA50.03	
	<i>Rhagodia eremaea</i>	+	0.1m	YA05.08	Seedling.
	<i>Rostellularia adscendens</i> subsp. <i>adscendens</i> var. <i>latifolia</i>	+	0.1m	YA34.04	
	<i>Sclerolaena cornishiana</i>	+	0.2m	YA64.01	
	<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)	+	0.2m		

<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	1%	1.5m	YA11.06
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA01.20
<i>Senna notabilis</i>	+	<0.1m	YA01.08
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06
<i>Streptoglossa bubakii</i>	+	0.1m	YA30.03

OSH: Obligate stem hemiparasite.

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA39		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 300.		
<b>MGA</b>	50	749465 <b>mE</b>	7491959 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles. Some clay content.		
<b>Rock</b>	Ferrous rock.		
<b>Vegetation</b>	Acacia aneura var. intermedia, Acacia ancistrocarpa, Acacia pruinocarpa, Acacia synchronicia high shrubland over Senna artemisioides subsp. oligophylla scattered shrubs over Cenchrus ciliaris, Eulalia aurea closed tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure, cattle and rubbish.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 20%. Litter cover: Logs: +. Twigs: 1%. Lvs: +. Drain runs through the plot.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.5m	YA25.16	TT.
	Abutilon macrum	+	0.15m	YA27.03	
	Abutilon otocarpum	+	0.1m	YA39.03	
	Acacia ancistrocarpa	20%	2.2m	YA30.01	
	Acacia aneura var. conifera	+	0.4m	YA39.05	
	Acacia aneura var. intermedia	5%	4.0m	YA39.04	
	Acacia pruinocarpa	2%	2.0m	YA04.01	
	Acacia synchronicia	1%	4.5m	YA05.15	
	Aristida ingrata	+	0.7m	YA39.06	
	Aristida sp.	+	0.1m	YA39.02	
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Boerhavia repleta	+	<0.1m	YA12.05	
	Cenchrus ciliaris	80%	0.5m	YA01.31	
	Cleome viscosa	+	0.4m	YA01.18	
	Corchorus tectus	+	0.2m	YA01.04	
	Cullen leucochaites	+	2.0m	YA39.12	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Dichanthium sericeum subsp. humilium	+	0.15m	YA10.16b	
	Duperreya commixta	+	0.1m	YA39.01	
	Duperreya commixta	+	CR	YA03.06	
	Enneapogon polyphyllus	+	0.2m	YA42.01	
	Eulalia aurea	1%	0.3m	YA25.04	
	Evolvulus alsinoides var. villosicalyx	+	<0.1m	YA23.05	
	Glycine canescens	+	CR	YA39.08	
	Gomphrena cunninghamii	+	<0.1m	YA27.13	
	Hakea lorea subsp. lorea	+	1.0m	YA02.15	
	Hakea lorea subsp. lorea	+	0.6m	YA03.12	Saplings.
	Mukia maderaspatana	+	CR	YA03.03	
	Paspalidium constrictum	+	<0.1m	YA10.05	
	Perotis rara	+	<0.1m	YA06.15	
	Pluchea dentex	+	0.2m	YA39.09	
	Portulaca oleracea	+	<0.1m	YA25.20	
	Psyrax latifolia	+	1.3m	YA25.05	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	

<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.2m	YA12.06
<i>Rhynchosia minima</i> var. <i>australis</i>	+	3.0m	YA05.07
<i>Rhynchosia minima</i> var. <i>australis</i>	+	<0.1m	YA39.11
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	+	<0.1m	YA39.07
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	1%	1.5m	YA25.09a
<i>Senna notabilis</i>	+	<0.1m	YA01.08
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	<0.1m	YA39.10
<i>Triodia pungens</i>	+	<0.1m	YA11.01

TT: Thinner tomentum.



<b>Site</b>	YA40		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 310.		
<b>MGA</b>	50	750459 <b>mE</b>	7491354 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259) scattered tall shrubs over Acacia tetragonophylla, Corchorus tectus open shrubland over Cenchrus ciliaris, Enneapogon polyphyllus, Aristida inaequiglumis very open tussock grassland.		
<b>Veg</b>	Very poor. Area previously cleared and currently disturbed by infrastructure and rubbish. Plot mostly denuded.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 95%. Litter cover: Logs: +. Twigs: +. Lvs: +. Area has been graded in the past and rehabilitated. Capcock was present along the edge of the railway access track (adjacent to the railway line).		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	4.5m	YA42.02	
	Acacia pruinocarpa	+	4.0m	YA04.01	
	Acacia synchronicia	+	0.5m	YA05.15	
	Acacia tetragonophylla	1%	1.2m	YA25.23	
	Aerva javanica	+	0.4m	YA08.01	
	Aristida contorta	+	0.15m	YA40.02	
	Aristida inaequiglumis	1%	0.6m	YA40.03	
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Cenchrus ciliaris	3%	0.4m	YA01.31	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus tectus	+	0.3m	YA01.04	
	Corchorus tectus	1%	0.3m	YA40.04	
	Dichanthium sericeum subsp. humilius	+	<0.1m	YA10.16b	
	Enneapogon polyphyllus	2%	0.25m	YA42.01	
	Euphorbia coghlanii	+	<0.1m	YA11.04	
	Hakea lorea subsp. lorea	+	4.0m	YA03.12	
	Indigofera georgei	+	0.4m	YA40.05	
	Maireana planifolia	+	0.3m	YA40.01	
	Mukia maderaspatana	+	CR	YA03.03	
	Portulaca oleracea	+	<0.1m	YA25.20	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Ptilotus helipteroides var. helipteroides	+	0.1m	YA40.06	
	Ptilotus obovatus var. obovatus	+	0.5m	YA40.07	
	Rhagodia eremaea	+	2.0m	YA05.08	
	Salsola tragus	+	0.3m	YA12.20	
	Sclerolaena cornishiana	+	0.1m	YA10.13	
	Senna notabilis	+	0.3m	YA01.08	
	Solanum lasiophyllum	+	0.3m	YA03.02	

<b>Site</b>	YA41		
<b>Described Season</b>	TE	<b>Date</b>	4/18/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 311.		
<b>MGA</b>	50	751425 <b>mE</b>	7490673 <b>mN</b>
<b>Habitat</b>	Mulga plain.		
<b>Soil</b>	Red, brown loam with scattered cobbles and pebbles.		
<b>Rock</b>	Ferrous rock and silicates.		
<b>Vegetation</b>	Acacia aneura var. pilbarana, Acacia xiphophylla, Acacia pruinocarpa low open forest over Acacia synchronicia, Senna artemisioides aff. subsp. oligophylla (thinly sericeous), Acacia ancistrocarpa, Acacia bivenosa high shrubland over Rhagodia eremaea, Senna artemisioides subsp. oligophylla x helmsii open shrubland over Cenchrus ciliaris, Digitaria ctenantha, Eragrostis eriopoda, Eragrostis xerophila, Sporobolus australasicus, Chloris pectinata, Enneapogon polyphyllus, Eulalia aurea, Dactyloctenium radulans tussock grassland over Malvastrum americanum, Aerva javanica very open herbland.		
<b>Veg</b>	Poor to good. Area disturbed by infrastructure and weeds.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 60%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.2m	YA30.09	
	Abutilon fraseri	+	0.5m	YA41.14	
	Acacia ancistrocarpa	1%	3.0m	YA30.01	
	Acacia ancistrocarpa	+	0.5m	YA01.19	
	Acacia aneura var. pilbarana	40%	8.0m	YA41.02	
	Acacia bivenosa	1%	2.0-3.0m	YA43.03	
	Acacia citrinoviridis	+	0.1m	YA28.14	
	Acacia pruinocarpa	3%	6.0m	YA04.01	
	Acacia synchronicia	3%	3.0m	YA50.04	
	Acacia xiphophylla	15%	5.0m	YA41.03	
	Aerva javanica	1%	1.0m	YA08.01	
	Amaranthus undulatus	+	0.1m	YA41.08	
	Aristida inaequiglumis	+	0.2m	YA01.10	
	Aristida ingrata	+	0.1m	YA30.02	
	Blumea tenella	+	<0.1m	YA41.10	
	Cenchrus ciliaris	20%	0.5m	YA01.31	
	Chenopodium melanocarpum forma	+	0.1m	YA41.15	
	Chloris pectinata	1%	<0.1m	YA41.04a	
	Chloris pectinata	1%	0.3m	YA07.06	
	Chrysopogon fallax	+	0.3m	YA05.04	
	Cleome viscosa	+	0.1m	YA01.18	
	Corchorus sidoides	+	0.2m	YA04.02	
	Corchorus tectus	+	0.3m	YA01.04	
	Corchorus trilocularis	+	<0.1m	YA41.06	
	Dactyloctenium radulans	1%	<0.1m	YA02.10	
	Dichanthium sericeum subsp. humilium	+	0.1m	YA41.04b	
	Digitaria ctenantha	5%	0.1m	YA41.13	
	Duperreya commixta	+	CL	YA67.15	
	Enneapogon polyphyllus	+	0.1m	YA50.08	
	Enneapogon polyphyllus	1%	0.1m	YA50.08	

<i>Eragrostis eriopoda</i>	1%	0.1m	YA41.05
<i>Eragrostis xerophila</i>	1%	0.3m	YA13.07
<i>Eremophila forrestii</i> subsp. <i>forrestii</i>	+	0.6m	YA62.12
<i>Eulalia aurea</i>	1%	0.5m	YA01.28
<i>Euphorbia coghlanii</i>	+	0.1m	YA41.12
<i>Euphorbia coghlanii</i>	+	0.1m	YA13.10
<i>Gomphrena cunninghamii</i>	+	0.1m	YA30.08
<i>Gomphrena kanisii</i>	+	0.2m	YA13.13
<i>Goodenia prostrata</i>	+	<0.1m	YA26.02
<i>Hibiscus sturtii</i> var. <i>grandiflorus</i>	+	0.3m	YA41.17a
<i>Maireana villosa</i>	+	0.5m	YA41.17b
<i>Malvastrum americanum</i>	2%	0.1m	YAOP1
<i>Mukia maderaspatana</i>	+	CL	YA01.29
<i>Nicotiana occidentalis</i> subsp. <i>occidentalis</i>	+	0.1m	YA41.11
<i>Paspalidium constrictum</i>	+	0.1m	YA41.16
<i>Perotis rara</i>	+	<0.1m	YA02.01
<i>Phyllanthus erwinii</i>	+	<0.1m	YA26.04
<i>Portulaca oleracea</i>	+	<0.1m	YA01.14
<i>Psyrax latifolia</i>	+	1.0m	YA26.23
<i>Pterocaulon sphaeranthoides</i>	+	<0.1m	NC
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32
<i>Ptilotus macrocephalus</i>	+	<0.1m	YAOP15TE
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.6m	YA41.09
<i>Rhagodia eremaea</i>	3%	1.5m	YA05.08
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CL	YA05.07
<i>Salsola tragus</i>	+	0.1m	YA12.20
<i>Sclerolaena cornishiana</i>	+	0.4m	YA13.01
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)	3%	2.0-2.5m	YA41.01
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	2%	1.0m	YA26.12
<i>Senna notabilis</i>	+	0.2m	YA01.08
<i>Setaria verticillata</i>	+	0.2m	YA41.07
<i>Solanum lasiophyllum</i>	+	0.5m	YA01.26
<i>Sporobolus australasicus</i>	1%	<0.1m	YA02.06
<i>Streptoglossa bubakii</i>	+	0.3m	YA30.03
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)	+	0.2m	YA11.02
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.2m	YA01.34

<b>Site</b>	YA42		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 312.		
<b>MGA</b>	50	751951 <b>mE</b>	7490369 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with clay and scattered rocks and pebbles.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia aneura var. aneura, Acacia pruinocarpa, high open shrubland over Eremophila forrestii subsp. forrestii scattered shrubs over Enneapogon polyphyllus, Cenchrus ciliaris open tussock grassland over Cleome viscosa, Abutilon macrum, Bidens bipinnata very open herbland.		
<b>Veg</b>	Poor to very poor. Area disturbed by infrastructure and rubbish.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 90%. Litter cover: Logs: +. Twigs: 1%. Lvs: +. Dead trees throughout plot. Large denuded area within plot.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon macrum	1%	0.2m	YA27.03	
	Acacia aff. aneura (narrow fine veined; site 1259)	+	2.0m	YA42.05	
	Acacia aneura var. aneura	10%	4.5m	YA42.02	
	Acacia pruinocarpa	1%	2.5m	YA04.01	
	Anthobolus leptomerioides	+	2.0m	YA42.08	
	Bidens bipinnata	1%	0.1m	YA42.03	
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Cenchrus ciliaris	5%	0.4m	YA01.31	
	Cleome viscosa	2%	0.2-0.4m	YA01.18	
	Dichanthium sericeum subsp. humilium	+	<0.1m	YA10.16b	
	Duperreya commixta	+	CR	YA03.06	VC (OP).
	Enneapogon polyphyllus	7%	0.3m	YA42.01	
	Eremophila forrestii subsp. forrestii	1%	1.0m	YA42.04	
	Eulalia aurea	+	0.5m	YA25.04	
	Euphorbia coghlanii	+	<0.1m	YA11.04	
	Evolvulus alsinoides var. villosicalyx	+	0.2m	YA23.05	
	Gomphrena affinis subsp. pilbarensis	+	0.1m	YA10.12	
	Hibiscus burtonii	+	0.2m	YA42.07	
	Mukia maderaspatana	+	CR	YA03.03	
	Paspalidium constrictum	+	0.1m	YA10.05	
	Portulaca oleracea	+	<0.1m	YA25.20	
	Psydrax latifolia	+	0.2m	YA25.05	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Rhynchosia minima var. australis	+	0.1m	YA28.05	
	Sclerolaena cornishiana	+	0.1m	YA10.13	
	Senna artemisioides subsp. oligophylla	+	0.4m	YA25.09a	

<i>Senna notabilis</i>	+	0.4m	YA01.08
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	+	0.2m	YA42.09
<i>Solanum lasiophyllum</i>	+	0.4m	YA03.02
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)	+	<0.1m	YA42.06

VC: Recorded within the vegetation community.

OP: Out of plot.



<b>Site</b>	YA43		
<b>Described Season</b>	TE	<b>Date</b>	4/18/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 313.		
<b>MGA</b>	50	752818 <b>mE</b>	7489746 <b>mN</b>
<b>Habitat</b>	Plain (shrubland).		
<b>Soil</b>	Red, brown loam with some clay content.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia bivenosa, Acacia aneura var. intermedia, Acacia pruinocarpa high open shrubland over Senna artemisioides subsp. oligophylla scattered shrubs over Corchorus sidoides low open shrubland over Triodia pungens open hummock grassland over Cenchrus ciliaris, Enneapogon polyphyllus, Digitaria ctenantha open tussock grassland.		
<b>Veg</b>	Poor. Area affected by cattle, weeds and infrastructure.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 45%. Litter cover: Logs: +. Twigs: +. Lvs: 1%.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.2m	YA30.09	
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.3m	YA30.09	
	Acacia ancistrocarpa	+	1.0m	YA30.01	
	Acacia aneura var. intermedia	2%	5.0m	YA43.04	
	Acacia bivenosa	6%	2.0-3.0m	YA43.03	
	Acacia inaequilatera	+	2.0m	YA01.25	
	Acacia pruinocarpa	1%	3.0m	YA04.01	
	Acacia pruinocarpa	1%	3.0-5.0m	YA04.01	
	Aristida inaequiglumis	+	0.3m	YA01.10	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	25%	0.5m	YA01.31	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus sidoides	2%	0.5-0.6m	YA43.07a	
	Corymbia hamersleyana	+	8.0m	YA24.03	VC (OP).
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Digitaria ctenantha	2%	<0.1m	YA43.06a	
	Duperreya commixta	+	CL	YA67.15	
	Enneapogon caerulescens var. caerulescens	+	<0.1m	YA26.21	
	Enneapogon polyphyllus	3%	0.1m	YA50.08	
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Euphorbia coghlanii	+	0.2m	YA11.04	
	Gomphrena kanisii	+	0.1m	YA13.13	
	Indigofera georgei	+	0.5-1.0m	YA30.13	
	Indigofera georgei	+	0.1m	YA43.05	
	Indigofera linifolia	+	0.2m	YA11.05	
	Ipomoea muelleri	+	CL	YA13.08	
	Iseilema eremaum	+	<0.1m	YA07.04	
	Maireana planifolia x villosa	+	0.3m	YA43.01	
	Mukia maderaspatana	+	CL	YA01.29	
	Perotis rara	+	<0.1m	YA02.01	
	Portulaca oleracea	+	<0.1m	YA01.14	
	Ptilotus exaltatus var. exaltatus	+	0.1m	YA01.32	
	Ptilotus helipteroides var. helipteroides	+	0.1m	YA13.02	

<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.5m	YA07.02
<i>Salsola tragus</i>	+	0.2m	YA12.20
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	1%	1.0-2.0m	YA11.06
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>	+	1.0m	YA43.07b
<i>Senna notabilis</i>	+	0.2m	YA01.08
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	+	0.4m	YA43.08
<i>Sida</i> sp. spiciform panicles (E. Leyland s.n. 14/8/90)	+	1.0m	YA43.06b
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	1.0m	YA01.34
<i>Triodia pungens</i>	30%	0.5m	YA43.02

<b>Site</b>	YA44		
<b>Described Season</b>	KM	<b>Date</b>	4/18/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 314.		
<b>MGA</b>	50	753450 <b>mE</b>	7489373 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Eucalyptus gamophylla low open mallee woodland over Acacia inaequilatera open shrubland over Triodia pungens hummock grassland over Eragrostis aff. eriopoda (WAS site 963) very open tussock grassland.		
<b>Veg</b>	Good. Area affected by infrastructure and cattle. Few weeds (only present along the edge of the railway access road).		
<b>Fire</b>	Moderate to old.		
<b>Notes</b>	Bare ground: 60%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon leucopetalum	+	0.2m	YA44.07	
	Acacia bivenosa	+	1.5m	YA44.06	
	Acacia inaequilatera	4%	1.2m	YA01.25	
	Acacia pruinocarpa	+	1.2m	YA04.01	
	Acacia sericophylla	+	4.0m	YA44.16	
	Acacia sericophylla	+	2.0m	YA44.10	
	Anthobolus leptomerioides	+	2.0m	YA42.08	
	Aristida inaequiglumis	+	0.3m	YA40.03	
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Bonamia rosea	+	0.1m	YA44.15	
	Bonamia rosea	+	0.3m	YA44.14	
	Cenchrus ciliaris	+	0.3m	YA01.31	
	Corchorus tectus	+	0.7m	YA01.04	
	Cullen leucochaites	+	1.5m	YA39.12	
	Cullen leucochaites	+	0.1m	YA44.13	
	Dicrasyliis cordifolia	+	0.1m	YA44.09	
	Enneapogon caeruleus var. caeruleus	+	<0.1m	YA44.17	
	Enneapogon polyphyllus	+	0.1m	YA42.01	
	Eragrostis aff. eriopoda (WAS site 963)	5%	0.3m	YA44.05	
	Eriachne aristidea	+	0.1m	YA44.01	
	Eriachne aristidea	+	0.1m	YA44.18	
	Eucalyptus gamophylla	4%	3.0m	YA44.03	
	Goodenia microptera	+	<0.1m	YA44.19	
	Hibiscus sturtii var. platyklamys	+	0.5m	YA44.11	
	Indigofera monophylla (brown calyx form)	+	0.2m	YA44.08	
	Mukia maderaspatana	+	CR	YA03.03	
	Ptilotus astrolasius var. astrolasius	+	0.2m	YA44.12	
	Senna notabilis	+	0.3m	YA01.08	
	Senna notabilis	+	<0.1m	YA01.08	
	Solanum lasiophyllum	+	0.4m	YA03.02	
	Solanum sturtianum	+	0.2m	YA44.20	
	Tribulus hirsutus	+	<0.1m	YA44.02	
	Triodia pungens	40%	0.4m	YA44.04	

<b>Site</b>	YA45		
<b>Described Season</b>	TE	<b>Date</b>	4/21/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 315.		
<b>MGA</b>	50	754258 <b>mE</b>	7488799 <b>mN</b>
<b>Habitat</b>	Low shrubland plain.		
<b>Soil</b>	Red, brown loam with scattered cobbles and pebbles.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Eucalyptus xerothermica, Acacia aff. aneura (narrow fine veined; site 1259) low open woodland over Eucalyptus gamophylla scattered low mallee trees over Acacia pruinocarpa scattered tall shrubs over Acacia bivenosa, Acacia synchronicia, Indigofera monophylla (brown calyx form), Scaevola parvifolia subsp. pilbarae, Corchorus tectus low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Poor to good. Area affected by infrastructure.		
<b>Fire</b>	Young.		
<b>Note</b>	Bare ground: 60%. Litter cover: Logs: +. Twigs: 1%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon trudgenii MS	+	0.4m	YA45.10	
	Abutilon trudgenii MS	+	<0.3m	YA45.03	
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	6.0m	YA45.15	
	Acacia ancistrocarpa	+	<0.1m	YA01.19	
	Acacia ancistrocarpa	+	2.0m	YA01.19	
	Acacia bivenosa	1%	0.1m	YA43.03	Seedlings.
	Acacia inaequilatera	+	0.5m	YA01.25	
	Acacia pruinocarpa	1%	4.0m	YA04.01	
	Acacia synchronicia	1%	0.1m	YA50.04	
	Aristida holathera var. holathera	+	0.1m	YA01.01	
	Aristida inaequiglumis	2%	0.5m	YA01.10	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	10%	0.5m	YA01.31	
	Cleome viscosa	+	0.4m	YA01.18	
	Corchorus tectus	1%	0.4m	YA01.04	
	Cullen leucochaites	+	1.0m	YA45.01	
	Cullen martinii	+	0.5m	YA45.06	
	Cymbopogon obtectus	+	0.3m	YA45.16	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Enneapogon caerulescens var. caerulescens	+	0.1m	YA26.21	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.4m	YA01.06	
	Eriachne aristidea	+	<0.1m	YA01.22	
	Eucalyptus gamophylla	1%	2.0m	YA02.12	
	Eucalyptus xerothermica	2%	3.0m	YA45.07	
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Euphorbia biconvexa	+	0.1m	YA45.02	
	Goodenia prostrata	+	<0.1m	YA26.02	
	Goodenia prostrata	+	<0.1m	YA45.17	
	Gossypium australe (Burrup Peninsula form)	+	0.5m	YA45.09	

<i>Heliotropium inexplicitum</i>	+	<0.1m	YA45.04
<i>Hibiscus burtonii</i>	+	0.6m	YA45.11
<i>Indigofera monophylla</i> (brown calyx form)	2%	0.2m	YA01.05
<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04
<i>Mukia maderaspatana</i>	+	CL	YA01.29
<i>Paspalidium clementii</i>	+	<0.1m	YA45.14
<i>Phyllanthus erwinii</i>	+	<0.1m	YA45.13
<i>Portulaca oleracea</i>	+	<0.1m	YA01.14
<i>Ptilotus astrolasius</i> var. <i>astrolasius</i>	+	0.2m	
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	0.1m	YA01.32
<i>Ptilotus helipteroides</i> var. <i>helipteroides</i>	+	<0.1m	YA13.02
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.6m	YA50.03
<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	0.1m	YA45.05
<i>Rhyncharrhena linearis</i>	+	CL	YA45.12
<i>Salsola tragus</i>	+	0.2m	YA12.20
<i>Scaevola parvifolia</i> subsp. <i>pilbarae</i>	2%	0.2m	YA01.23
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)	+	0.6m	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	1.0m	YA04.05
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA26.12
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>	+	0.6m	YA45.08
<i>Senna notabilis</i>	+	0.6m	YA01.08
<i>Solanum lasiophyllum</i>	+	0.5m	YA01.26
<i>Solanum lasiophyllum</i>	+	0.5m	YA01.26
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06
<i>Tribulus hirsutus</i>	+	<0.1m	YA01.15
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.3m	YA01.34
<i>Triodia pungens</i>	2%	0.1m	YA11.10
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	<0.1m	YA45.18
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	<0.1m	YA01.16



**Site** YA46

**Described** TE **Date** 4/18/2008 **Type** Q **25 x 100m**

**Season** **Uniformity**

**Location** Chainage 316.

**MGA** 50 **755084 mE** **7488300 mN**

**Habitat** Low open shrubland plain.

**Soil** Red, brown loam with iron cobbles and pebbles. Some hardpan with little clay.

**Rock** Ferrous rock.

**Vegetation** Eucalyptus xerothermica scattered low trees over Eucalyptus gamophylla scattered mallee trees over Acacia bivenosa, Acacia pruinocarpa high open shrubland over Acacia synchronicia scattered shrubs over Triodia pungens open hummock grassland over Cenchrus ciliaris very open tussock grassland.

**Veg** Poor to good. Area affected by cattle, weeds and infrastructure.

**Fire** Moderate.

**Notes** Bare ground: 75%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.3m	YA30.09	
	Acacia ancistrocarpa	+	1.0m	YA30.01	
	Acacia bivenosa	1%	2.0-3.0m	YA43.03	
	Acacia dictyophleba	+	1.0m	YA46.02	
	Acacia inaequilatera	+	1.0m	YA01.25	
	Acacia pruinocarpa	1%	3.0m	YA04.01	
	Acacia synchronicia	1%	0.6-1.5m	YA05.15	
	Capparis lasiantha	+	CL	YA46.07	
	Capparis umbonata	+	1.0-3.0m	YA46.10	
	Cenchrus ciliaris	5%	0.5m	YA01.31	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus tectus	+	0.4m	YA01.04	
	Corchorus tectus	+	0.3m	YA01.04	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Enneapogon polyphyllus	+	0.1m	YA50.08	
	Eucalyptus gamophylla	1%	2.0m	YA46.08	
	Eucalyptus xerothermica	1%	5.0m	YA46.06	Edge of plot.
	Gossypium australe (Burrup Peninsula form)	+	1.0m	YA46.05	
	Hibiscus sturtii var. platyklamys	+	0.4m	YA46.04	
	Indigofera linifolia	+	0.2m	YA11.05	
	Mukia maderaspatana	+	CL	YA01.29	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Salsola tragus	+	0.4m	YA12.20	
	Senna artemisioides subsp. oligophylla	+	1.0m	YA46.11	
	Senna artemisioides subsp. oligophylla x helmsii	+	0.6m	YA26.12	
	Senna glutinosa subsp. glutinosa	+	1.5m	YA43.07	
	Senna glutinosa subsp. luerssenii	+	0.3m	YA06.22	
	Senna notabilis	+	0.2m	YA01.08	

Sida aff. fibulifera (FMG 125-20)	+	0.2m	YA46.09
Sida echinocarpa	+	0.3m	YA46.03
Solanum lasiophyllum	+	0.3m	YA01.26
Triodia pungens	30%	0.6m	YA46.01

**Site** YA47

**Described** TE **Date** 4/21/2008 **Type** Q **Uniformity** 10 x 250m

**Season**

**Location** Chainage 317.

**MGA** 50 **mE** 755920 **mN** 7487701

**Habitat** Low shrubland plain.

**Soil** Red, brown loam with scattered cobbles and pebbles.

**Rock** Ferrous rock and silicate.

**Vegetation** Eucalyptus xerothermica low open woodland over Acacia ancistrocarpa, Acacia bivenosa, Acacia synchronicia, Acacia inaequilatera shrubland over Indigofera monophylla (brown calyx form), Senna artemisioides subsp. oligophylla low open shrubland over Triodia pungens open hummock grassland over Cenchrus ciliaris very open tussock grassland.

**Veg** Poor to good. Area affected by weeds and cattle.

**Fire** Young.

**Notes** Bare ground: 60%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	+		0.3m	YA47.07	VC (OP).
	Acacia ancistrocarpa	2%		2.0m	YA01.19	
	Acacia bivenosa	10%		1.0-2.0m	YA47.01	
	Acacia dictyophleba	+		1.0m	YA04.03	VC (OP).
	Acacia inaequilatera	1%		3.0m	YA01.25	
	Acacia pruinocarpa	+		1.0-5.0m	YA04.01	
	Acacia synchronicia	1%		1.0m	YA50.04	
	Aerva javanica	+		0.3m	YA08.01	VC (OP).
	Anthobolus leptomerioides	+		2.0m	YA42.08	
	Aristida holathera var. holathera	+		<0.1m	YA01.01	VC (OP).
	Aristida inaequiglumis	+		0.5m	YA01.10	
	Cenchrus ciliaris	5%		0.5m	YA01.31	
	Chloris pectinata	+		<0.1m	YA07.06	
	Corchorus tectus	+		0.5m	YA01.04	
	Enneapogon caerulescens var. caerulescens	+		0.1m	YA26.21	
	Enneapogon polyphyllus	+		<0.1m	YA50.08	
	Eucalyptus gamophylla	+		2.0m	YA02.12	Many dead.
	Eucalyptus xerothermica	2%		5.0m	YA47.04	
	Euphorbia coghlanii	+		CL	YA11.04	
	Hibiscus burtonii	+		0.5m	YA47.05	
	Hibiscus sturtii var. platyklamys	+		0.3m	YA11.08	
	Indigofera monophylla (brown calyx form)	1%		0.5m	YA47.03	
	Ptilotus exaltatus var. exaltatus	+		<0.1m	YA01.32	

<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.5m	YA50.03	
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.6m	YA50.03	VC (OP).
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	1%	1.0m	YA47.06	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	<1.0m	YA47.07B	
<i>Sida cardiophylla</i>	+	0.6m		VC (OP).
<i>Solanum lasiophyllum</i>	+	0.5m	YA01.26	
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06	
<i>Triodia pungens</i>	15%	0.5m	YA47.02	

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA48		
<b>Described Season</b>	KM	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 318.		
<b>MGA</b>	50	756904 <b>mE</b>	7487097 <b>mN</b>
<b>Habitat</b>	Minor drainage line.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles. Some clay content.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Eucalyptus xerothermica , Acacia aff. aneura (narrow fine veined; site 1259) low open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia ancistrocarpa, Acacia synchronicia shrubland over Triodia pungens open hummock grassland over Cenchrus ciliaris, Aristida inaequiglumis open tussock grassland.		
<b>Veg</b>	Good to poor. Area disturbed by infrastructure, an earth mound and cattle.		
<b>Fire</b>	Moderate to old.		
<b>Notes</b>	Bare ground: 60%. Litter cover: Logs: +. Twigs: 1%. Lvs: +.		

### SPECIES

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon macrum	+	<0.1m	YA27.03	
	Abutilon otocarpum			YA48.03a	
	Acacia aff. aneura (narrow fine veined; site 1259)	5%	6.0m	YA48.12	
	Acacia ancistrocarpa	5%	2.0m	YA01.19	
	Acacia aneura var. intermedia	+	4.0m	YA48.07	VC (OP).
	Acacia pruinocarpa	+	2.5m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	5%	1.5m	YA48.03	
	Acacia synchronicia	4%	1.5-2.0m	YA48.04	
	Acacia synchronicia	+	1.5m	YA05.16	
	Aristida contorta	+	0.1m	YA48.01	
	Aristida holathera var. holathera	+	0.15m	YA01.01	
	Aristida inaequiglumis	+	0.1m	YA48.14	
	Aristida inaequiglumis	1%	0.5m	YA56.01	
	Boerhavia repleta	+	<0.1m	YA12.05	
	Cenchrus ciliaris	20%	0.3m	YA01.31	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus sidoides	+	0.4m	YA48.10	
	Corchorus tectus	+	0.2m	YA01.04	
	Enneapogon polyphyllus	+	<0.1m	YA42.01	
	Eremophila cuneifolia	+	1.2m	YA48.17	
	Eriachne aristidea	+	<0.1m	YA01.22	
	Eucalyptus xerothermica	2%	4.5m	YA48.18	
	Eucalyptus xerothermica	+	5.0m	YA48.06	VC (OP).
	Eulalia aurea	+	0.5m	YA25.04	
	Euphorbia coghlanii	+	<0.1m	YA48.11	
	Evolvulus alsinoides var. villosicalyx	+	0.1m	YA23.05	
	Gomphrena affinis subsp. pilbarensis	+	<0.1m	YA10.12	
	Gossypium australe (Burrup Peninsula form)	+	0.7m	YA48.19	
	Hibiscus burtonii	+	0.4m	YA48.21	
	Iseilema eremaeum	+	<0.1m	YA48.13	
	Maireana planifolia	+	0.2m	YA48.16	
	Mukia maderaspatana	+	CR	YA03.03	
	Portulaca oleracea	+	<0.1m	YA25.20	



<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CR	YA28.05
<i>Salsola tragus</i>	+	<0.1m	YA12.20
<i>Sclerolaena cornishiana</i>	+	0.1m	YA10.13
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	+	0.5m	YA48.20
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	0.6m	YA48.05
<i>Senna charlesiana</i>	+	0.1m	YA48.15
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>	+	0.4m	YA48.09
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	+	<0.1m	YA48.08
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06
<i>Triodia pungens</i>	20%	0.2-0.4m	YA48.02

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA49		
<b>Described</b>	KM	<b>Date</b>	4/21/2008 <b>Type</b> Q 10 x 250m
<b>Season</b>		<b>Uniformity</b>	
<b>Location</b>	Chainage 319.		
<b>MGA</b>	50	757539 <b>mE</b>	7486621 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles. Some clay content.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Eucalyptus xerothermica scattered low trees over Acacia ancistrocarpa, Senna glutinosa subsp. glutinosa open shrubland over Acacia inaequilatera low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure, cattle and rubbish.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 80%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon otocarpum	+	0.3m	YA49.07	
	Acacia ancistrocarpa	7%	1.5m	YA30.01	
	Acacia aneura var. conifera	+	0.3m	YA49.10	
	Acacia bivenosa	+	0.5m	YA49.01	
	Acacia inaequilatera	4%	0.5m	YA01.25	
	Acacia pachyacra	+	5.0m	YA49.13	
	Acacia pruinocarpa	+	1.5m	YA04.01	
	Acacia synchronicia	+	0.4m	YA49.14	
	Aristida inaequiglumis	+	0.3m	YA56.01	
	Boerhavia coccinea	+	0.4m	YA12.09	
	Capparis lasiantha	+	CR	YA49.03	
	Cenchrus ciliaris	10%	0.4m	YA01.31	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus tectus	+	0.2m	YA01.04	
	Enneapogon polyphyllus	+	<0.1m	YA42.01	
	Eucalyptus xerothermica	+	4.0m	YA49.02	
	Euphorbia coghlanii	+	<0.1m	YA11.04	
	Hibiscus aff. platyklamys (site 1139)	+	0.1m	YA49.04	
	Hibiscus sturtii var. aff. grandiflorus	+	<0.1m	YA49.11	
	Indigofera monophylla (brown calyx form)	+	0.3m	YA49.12	
	Indigofera monophylla (brown calyx form)	+	<0.1m	YA49.05	
	Iseilema dolichotrichum	+	<0.1m	YA49.06	
	Mukia maderaspatana	+	0.15m	YA03.03	
	Psyrax latifolia	+	0.5m	YA25.05	
	Ptilotus exaltatus var. exaltatus	+	0.3-0.5m	YA01.32	
	Ptilotus obovatus var. obovatus	+	0.25m	YA69.03	
	Rhynchosia minima var. australis	+	CR	YA28.05	
	Sclerolaena cornishiana	+	0.25m	YA10.13	VC (OP).
	Senna artemisioides subsp. helmsii	+	CR	YA48.20	
	Senna artemisioides subsp. oligophylla x helmsii	+	0.1m	YA48.05	
	Senna glutinosa subsp. glutinosa	1%	1.7m	YA49.09	
	Solanum lasiophyllum	+	<0.1m	YA03.02	
	Sporobolus australasicus	+	<0.1m	YA02.06	
	Triodia pungens	10%	0.8m	YA49.08	

VC: Recorded within the vegetation community.  
OP: Out of plot.

<b>Site</b>	YA50		
<b>Described Season</b>	TE	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Locatino</b>	Chainage 320.		
<b>MGA</b>	50	758611 <b>mE</b>	7485971 <b>mN</b>
<b>Habitat</b>	Plain (degraded Acacia pruinocarpa and Acacia synchronicia shrubland).		
<b>Soil</b>	Red, brown very fine loam/silt. Many cobbles and pebbles scattered on the soil surface with small ferrous stones covering bare patches.		
<b>Rock</b>	Ferrous rock.		
<b>Vegetation</b>	Eucalyptus xerothermica, Acacia pruinocarpa low open woodland over Acacia synchronicia, Acacia sclerosperma subsp. sclerosperma, Acacia aff. aneura (narrow fine veined; site 1259) high open shrubland over Senna artemisioides subsp. oligophylla scattered shrubs over Triodia pungens scattered hummock grasses over Cenchrus ciliaris open tussock grassland.		
<b>Veg</b>	Good to poor. Area disturbed by cattle and weeds.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 80%. Litter cover: Logs: +. Twigs: +. Lvs: 1%.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	3.0m	YA50.01	
	Acacia ancistrocarpa	+	1.5m	YA30.01	VC (OP).
	Acacia pruinocarpa	6%	6.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	1%	4.0m	YA50.15	
	Acacia synchronicia	7%	2.0-3.0m	YA50.04	
	Acacia tetragonophylla	+	1.0m	YA70.03	VC (OP).
	Aristida holathera var. holathera	+	0.1m	YA01.01	VC (OP).
	Aristida inaequiglumis	+	0.5m	YA01.10	VC (OP).
	Boerhavia coccinea	+	<0.1m	YA15.07	VC (OP).
	Boerhavia coccinea	+	<0.1m	YA03.16	VC (OP).
	Capparis spinosa var. nummularia	+	2.0m		VC (OP).
	Capparis umbonata	+	2.0-5.0m	YA50.13	VC (OP).
	Cenchrus ciliaris	15%	0.5m	YA01.31	
	Chloris pectinata	+	1.0m	YA07.06	VC (OP).
	Chloris pectinata	+	0.3m	YA07.06	VC (OP).
	Chloris pectinata	+	<0.1m	YA50.11	VC (OP).
	Cleome viscosa	+	0.3m	YA01.18	VC (OP).
	Cullen leucochaites	+	1.0m	YA50.07	VC (OP).
	Dactyloctenium radulans	+	<0.1m	YA02.10	VC (OP).
	Duperreya commixta	+	CL	YA67.15	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eremophila cuneifolia	+	1.0m	YA50.12	VC (OP).
	Eucalyptus xerothermica	1%	3.0m	YA50.05	
	Hakea lorea subsp. lorea	+	5.0m	YA03.12	VC (OP).
	Iseilema eremaum	+	<0.1m	YA07.04	VC (OP).
	Maireana planifolia	+	1.0m	YA50.14	VC (OP).
	Maireana planifolia	+	0.3m	YA50.02	
	Portulaca oleracea	+	<0.1m	YA01.14	VC (OP).
	Psyrax latifolia	+	2.0m	YA26.23	VC (OP).
	Pterocaulon sphaeranthoides	+	0.1m	NC	VC (OP).

<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	0.6m	YA50.03	
<i>Rhagodia eremaea</i>	+	1.6m	YA05.08	
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CL	YA05.07	
<i>Salsola tragus</i>	+	0.3m	YA12.20	
<i>Sclerolaena cornishiana</i>	+	0.3m	YA03.14	VC (OP).
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	1%	1.0-1.5m	YA50.09	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	0.2m	YA11.06	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA26.12	
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>	+	1.0m	YA06.22	
<i>Senna notabilis</i>	+	0.3m	YA01.08	VC (OP).
<i>Solanum lasiophyllum</i>	+	0.5m	YA01.26	
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06	VC (OP).
<i>Streptoglossa bubakii</i>	+	<0.1m	YA30.03	VC (OP).
<i>Triodia pungens</i>	1%	0.5m	YA50.06	

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA51		
<b>Described Season</b>	TE	<b>Date</b>	4/21/2008 <b>Type</b> Q <span style="float: right;">10 x 250m</span>
			<b>Uniformity</b>
<b>Location</b>	Chainage 321.		
<b>MGA</b>	50	759222 <b>mE</b>	7485511 <b>mN</b>
<b>Habitat</b>	Dense Mulga plain/floodplain.		
<b>Soil</b>	Red, brown loam with clayey depressions. Few scattered cobbles and pebbles on the soil surface.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia pruinocarpa low woodland over Acacia aff. aneura (narrow fine veined; site 1259), Acacia synchronicia, Acacia sclerosperma subsp. sclerosperma, Atalaya hemiglauca high open shrubland over Cenchrus ciliaris tussock grassland over Abutilon aff. lepidum (1) (MET 15 352) scattered herbs.		
<b>Veg</b>	Poor. Area disturbed by weeds, cattle, past clearing and fibre optic cable laying.		
<b>Fire</b>	Old.		
<b>Notes</b>	Aspect: North. Bare ground: 35%. Litter cover: Logs: 2%. Twigs: 1%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	1%	0.1m	YA30.09	
	Acacia aff. aneura (narrow fine veined; site 1259)	5%	3.0m	YA51.01	
	Acacia pruinocarpa	30%	6.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	1%	2.0m	YA61.03	
	Acacia synchronicia	10%	2.0-3.0m	YA50.04	
	Amaranthus undulatus	+	0.3m	YA51.05	
	Amyema fitzgeraldii	+	0.5m	YAOPO5TE	OSH.
	Atalaya hemiglauca	1%	3.0m	YA09.03	
	Bidens bipinnata	+	0.1m	YA30.12	
	Boerhavia coccinea	+	<0.1m	YA03.16	
	Cenchrus ciliaris	60%	0.5m	YA01.31	
	Chloris pectinata	+	<0.1m	YA07.06	
	Cleome viscosa	+	<0.1m	YA01.18	
	Corchorus sidoides	+	0.1m	YA04.02	
	Corymbia aspera	+	4.0m	YA33.09	
	Cucumis melo subsp. agrestis	+	CL	YA33.06	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Duperreya commixta	+	CL	YA67.15	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.4m	YA01.06	
	Eragrostis leptocarpa	+	0.1m	YA51.04	
	Euphorbia coghlanii	+	0.1m		
	Iseilema eremaeum	+	<0.1m	YA07.04	
	Maireana planifolia	+	0.1m	YA51.03	
	Malvastrum americanum	+	0.1m	YAOPI	
	Mukia maderaspatana	+	CL	YA01.29	
	Perotis rara	+	0.1m	YA02.01	
	Phyllanthus erwinii	+	<0.1m	YA26.04	
	Portulaca oleracea	+	<0.1m	YA01.14	
	Psydrax latifolia	+	<0.1m	YA26.23	
	Pterocaulon sphaeranthoides	+	<0.1m	NC	
	Ptilotus obovatus var. obovatus	+	0.6m	YA50.03	



Rhagodia eremaea	+	1.0m	YA05.08	
Sclerolaena cornishiana	+	0.4m	YA64.01	
Sclerolaena cornishiana	+	0.3m	YA64.01	
Sclerolaena cornishiana	+	0.1m	YA03.14	
Senna artemisioides subsp. oligophylla	+	2.0m	YA11.06	
Senna artemisioides subsp. oligophylla x helmsii	+	1.0m	YA26.12	
Senna notabilis	+	0.2m	YA01.08	
Sida arsinata	+	0.3m	YA51.06	
Solanum lasiophyllum	+	<0.1m	YA01.26	Seedling.
Sporobolus australasicus	+	<0.1m	YA02.06	
Stenopetalum nutans	+	<0.1m	YA51.02	
Streptoglossa bubakii	+	<0.1m	YA30.03	Seedling.

OSH: Obligate stem hemiparasite.

<b>Site</b>	YA52		
<b>Described Season</b>	KM	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100
		<b>Uniformity</b>	
<b>Location</b>	Chainage 332.		
<b>MGA</b>	50	760173 <b>mE</b>	7484938 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles. Some clay content.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Eucalyptus xerothermica scattered low trees over Acacia synchronicia high open shrubland over Ptilotus obovatus var. obovatus, Senna artemisioides subsp. oligophylla x helmsii low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris open tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by infrastructure, cattle (evidence of grazing), weeds, rubbish and an earth mound.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 75%. Litter cover: Logs: +. Twigs: 1%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	<0.1m	YA52.07	
	Abutilon otocarpum	+	0.15m	YA52.10	Roadside.
	Acacia pruinocarpa	+	2.0m	YA04.01	
	Acacia synchronicia	10%	2.0-4.0m	YA52.11	
	Aerva javanica	+	0.1m	YA08.01	Roadside.
	Aristida contorta	+	0.1m	YA52.03	
	Boerhavia coccinea	+	<0.1m	YA12.09	
	Boerhavia repleta	+	<0.1m	YA12.05	Roadside.
	Cenchrus ciliaris	20%	0.4-0.5m	YA01.31	
	Corchorus sidoides	+	0.25m	YA48.10	
	Dactyloctenium radulans	+	0.1m	YA02.10	
	Duperreya commixta	+	CR	YA67.15	Roadside.
	Enneapogon polyphyllus	+	<0.1m	YA42.01	
	Eucalyptus xerothermica	1%	4.0m	YA52.02	
	Euphorbia australis (mid-green form)	+	<0.1m	YA52.09	Roadside.
	Maireana triptera	+	0.5m	YA52.05	
	Portulaca oleracea	+	<0.1m	YA25.20	Roadside.
	Ptilotus obovatus var. obovatus	1%	0.6m	YA52.06	
	Rhagodia eremaea	+	1.7m	YA52.08	
	Salsola tragus	+	0.15m	YA12.20	Roadside.
	Sclerolaena cornishiana	+	0.15m	YA10.13	
	Senna artemisioides subsp. oligophylla x helmsii	1%	0.7-1.0m	YA48.05	
	Senna notabilis	+	<0.1m	YA01.08	Roadside.
	Solanum lasiophyllum	+	0.5m	YA03.02	
	Sporobolus australasicus	+	<0.1m	YA02.06	Roadside.
	Tragus australianus	+	<0.1m	YA52.04	
	Triodia pungens	5%	0.5m	YA52.01	

<b>Site</b>	YA53		
<b>Described Season</b>	KM	<b>Date</b>	4/21/2008 <b>Type</b> Q
			10 x 250m
		<b>Uniformity</b>	
<b>Location</b>	Slightly East of Repeater 7.		
<b>MGA</b>	50	761110	<b>mE</b> 7484256 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Eucalyptus gamophylla low open mallee woodland over <i>Petalostylis cassioides</i> , <i>Senna notabilis</i> low open shrubland over <i>Triodia pungens</i> scattered hummock grasses over <i>Cenchrus ciliaris</i> very open tussock grassland.		
<b>Veg</b>	Poor. Area affected by infrastructure, cattle, rubbish, an earth mound and the road to		
<b>Fire</b>	Young.		
<b>Notes</b>	Bare ground: 90%. Litter cover: Logs: +. Twigs: +. Lvs: +. Unburnt section in the front of Repeater 7 accounts for approximately 2% of the plot.		

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	<i>Acacia dictyophleba</i>	+	<0.1m	YA53.04	
	<i>Acacia dictyophleba</i>	+	2.0m	YA04.03	FR.
	<i>Acacia pachyacra</i>	+	1.5m	YA53.12	FR.
	<i>Acacia pruinocarpa</i>	+	3.5m	YA04.01	FR.
	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>	+	1.2m	YA53.11	FR.
	<i>Aristida contorta</i>	+	<0.1m	YA52.03	
	<i>Aristida holathera</i> var. <i>latifolia</i>	+	<0.1m	YA35.07	
	<i>Aristida inaequiglumis</i>	+	0.4m	YA56.01	FR.
	<i>Cenchrus ciliaris</i>	10%	0.3m	YA01.31	
	<i>Cleome viscosa</i>	+	0.2m	YA01.18	
	<i>Corchorus tectus</i>	+	<0.1m	YA01.04	
	<i>Cymbopogon obtectus</i>	+	0.3m	YA35.10	
	<i>Enneapogon caeruleus</i> var. <i>caeruleus</i>	+	0.1m	YA53.05	
	<i>Eragrostis</i> sp.	+	0.4m	YA32.10	FR.
	<i>Eriachne aristidea</i>	+	<0.1m	YA01.22	
	<i>Eucalyptus gamophylla</i>	2%	0.5m	YA02.12	Saplings.
	<i>Euphorbia australis</i> (mid-green form)	+	<0.1m	YA53.02	
	<i>Euphorbia coghlanii</i>	+	<0.1m	YA11.04	
	<i>Haloragis gossei</i> var. <i>gossei</i>	+	<0.1m	YA53.06	
	<i>Hibiscus sturtii</i> var. <i>platychlamys</i>	+	0.2m	YA53.10	
	<i>Mukia maderaspatana</i>	+	CR	YA03.03	
	<i>Petalostylis cassioides</i>	2%	0.3m	YA53.01	
	<i>Petalostylis cassioides</i>	3%	0.4-0.6m	YA35.01	FR.
	<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32	
	<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	<0.1m	YA53.07	
	<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>	+	<0.1m	YA53.03	
	<i>Rhynchosia minima</i> var. <i>australis</i>	+	<0.1m	YA53.08	
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	<0.1m	YA48.05	
	<i>Senna notabilis</i>	1%	<0.1m	YA01.08	
	<i>Sida cardiophylla</i>	+	<0.1m	YA35.13	
	<i>Solanum lasiophyllum</i>	+	<0.1m	YA03.02	
	<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06	
	<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	<0.1m	YA53.09	

Triodia pungens	1%	0.3-0.4m	YA35.02	FR.
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FR: In front of Repeater 7 (non-burnt section).

**Site** YA54

**Described** TE **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location** Chainage 284.

**MGA** 50 **mE** 761805 **mN** 7483870

**Habitat** Drainage line.

**Soil** Red, brown clayey loam with alluvial sediments.

**Rock** Calcrete.

**Vegetation** Eucalyptus victrix low open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia ancistrocarpa high shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris tussock grassland.

**Veg** Good to poor. Area affected by weeds, cattle and infrastructure.

**Fire** Moderate to old.

**Notes** Aspect: North-east.  
Bare ground: 15%.  
Litter cover: Logs: +. Twigs: +. Lvs: 5%.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	+		0.3m	YA34.05	
	Acacia ancistrocarpa	6%		2.0-3.0m	YA30.01	
	Acacia dictyophleba	+		4.0m	YA04.03	VC (OP).
	Acacia sclerosperma subsp. sclerosperma	8%		2.0-4.0m	YA54.01	
	Acacia synchronicia	+		0.6m	YA05.15	
	Anthobolus leptomerioides	+		1.0m	YA42.08	
	Aristida contorta	+		0.1m	YA52.03	
	Boerhavia coccinea	+		<0.1m	YA15.07	
	Capparis lasiantha	+		1.0m	YA54.06	
	Capparis spinosa var. nummularia	+		CL		
	Capparis umbonata	+		3.0m	YA50.13	
	Cenchrus ciliaris	70%		0.5m	YA01.31	
	Cleome viscosa	+		0.3m	YA01.18	
	Corchorus tectus	+		0.3m	YA01.04	
	Duperreya commixta	+		CL	YA67.15	
	Eragrostis aff. eriopoda (WAS site 963)	+		0.4m	YA01.06	
	Eremophila longifolia	+		1.0m	YAOP02.1	VC (OP).
	Eucalyptus victrix	4%		8.0m	YA54.03	
	Eucalyptus xerothermica	+		4.0m	YA48.18	VC (OP).
	Euphorbia coghlanii	+		0.1m	YA54.07	
	Hakea lorea subsp. lorea	+		3.0m	YA02.15	
	Hakea lorea subsp. lorea	+		3.0m	YA03.12	
	Jasminum didymum subsp. lineare	+		CL	YA54.05	
	Mukia maderaspatana	+		CL	YA01.29	
	Portulaca oleracea	+		<0.1m	YA01.14	
	Rhagodia eremaea	+		2.0m	YA05.08	
	Rhynchosia minima var. australis	+		CL	YA05.07	
	Triodia pungens	10%		0.5m	YA54.02	

VC: Recorded within the vegetation community.  
OP: Out of plot.



<b>Site</b>	YA55		
<b>Described Season</b>	TE	<b>Date</b>	4/20/2008 <b>Type</b> Q <span style="float: right;">10 x 250m</span>
			<b>Uniformity</b>
<b>Location</b>	Chainage 325.		
<b>MGA</b>	50	762527 <b>mE</b>	7483320 <b>mN</b>
<b>Habitat</b>	Plain/floodplain.		
<b>Soil</b>	Red, brown loam with clayey depressions. Cobbles and pebbles were scattered on the soil surface.		
<b>Rock</b>	Ferrous rock.		
<b>Vegetation</b>	Eucalyptus xerothermica scattered low trees over Acacia ancistrocarpa, Acacia aneura var. pilbarana, Acacia aff. aneura (narrow fine veined; site 1259), Acacia pruinocarpa high shrubland over Senna artemisioides subsp. oligophylla open shrubland over Triodia pungens open hummock grassland over Cenchrus ciliaris, Aristida inaequiglumis, Eulalia aurea open tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by weeds and infrastructure.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Aspect: Slightly North-east. Bare ground: 60%. Litter cover: Logs: +. Twigs: 1%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.4m	YA30.09	
	Abutilon otocarpum	+	0.1m	YA55.12	
	Acacia aff. aneura (narrow fine veined; site 1259)	2%	4.0m	YA55.02	
	Acacia ancistrocarpa	15%	2.0m	YA01.19	
	Acacia aneura var. pilbarana	2%	4.0m	YA55.07	
	Acacia ligulata	+	2.0m	YA55.11	
	Acacia pruinocarpa	2%	3.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	+	1.0m	YA61.03	
	Acacia synchronicia	+	2.0m	YA50.04	
	Alternanthera nana	+	<0.1m	YA55.13	
	Aristida inaequiglumis	1%	0.4m	YA01.10	
	Cenchrus ciliaris	10%	0.5m	YA01.31	
	Chrysopogon fallax	+	0.3m	YA05.04	
	Cleome viscosa	+	0.2m	YA01.18	
	Convolvulus angustissimus subsp. angustissimus	+	CL	YA55.09	
	Corchorus tectus	+	0.3m	YA01.04	
	Corchorus tectus	+	0.4m	YA01.04	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Dysphania rhadinostachya subsp. rhadinostachya	+	<0.1m	YA06.20	
	Enchylaena tomentosa var. tomentosa	+	0.1m	YA55.08	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eremophila longifolia	+	0.1m	YAOP02.1	
	Eucalyptus xerothermica	1%	3.0m	YA55.01	
	Eulalia aurea	1%	0.5m	YA01.28	
	Eulalia aurea	+	0.3m	YA55.10	
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Euphorbia coghlanii	+	0.1m	YA15.03	
	Hibiscus sturtii var. aff. grandiflorus	+	0.2m	YA55.04	
	Hibiscus sturtii var. grandiflorus	+	0.2m	YA55.03	
	Ipomoea muelleri	+	CL	YA13.08	

<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04
<i>Maireana tomentosa</i>	+	0.1m	YA61.11
<i>Maireana triptera</i>	+	0.3m	YA62.04
<i>Paraneurachne muelleri</i>	+	0.2m	YA01.03
<i>Paspalidium clementii</i>	+	<0.1m	YA57.02
<i>Paspalidium clementii</i>	+	<0.1m	YA57.02
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32
<i>Rhagodia eremaea</i>	+	1.5m	YA05.08
<i>Rhynchosia minima</i> var. <i>australis</i>	+	CL	YA05.07
<i>Sclerolaena cornishiana</i>	+	0.3m	YA03.14
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	2%	1.0m	YA55.05
<i>Senna notabilis</i>	+	0.2m	YA01.08
<i>Setaria verticillata</i>	+	<0.1m	YA55.06
<i>Solanum lasiophyllum</i>	+	0.5m	YA01.26
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	10.0m	YA01.34
<i>Triodia pungens</i>	15%	0.5m	YA59.06

<b>Site</b>	YA56		
<b>Described Season</b>	KM	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 326.		
<b>MGA</b>	50	763553 <b>mE</b>	7482710 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered cobbles and pebbles. Some clay content.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Eucalyptus gamophylla scattered mallee trees over Acacia ancistrocarpa, Acacia pruinocarpa high shrubland over Triodia pungens, Triodia lanigera hummock grassland over Cenchrus ciliaris, Aristida inaequiglumis very open tussock grassland.		
<b>Veg</b>	Good to poor. Area disturbed by infrastructure and an earth mound. Lots of dead Acacia, may be dead because of changes to drainage caused by construction of railway.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 30%. Litter cover: Logs: +. Twigs: 2%. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon trudgenii MS	+	<0.1m	YA56.11	
	Acacia ancistrocarpa	20%	1.0-1.5m	YA32.05	10% dead.
	Acacia inaequilatera	+	0.5m	YA01.25	
	Acacia pruinocarpa	1%	3.5m	YA04.01	
	Acacia synchronicia	+	1.5m	YA05.15	
	Aristida inaequiglumis	1%	0.5m	YA56.01	
	Cenchrus ciliaris	2%	0.4m	YA01.31	
	Cleome viscosa	+	<0.1m	YA01.18	
	Corchorus sidoides	+	0.3m	YA48.10	
	Corchorus tectus	+	0.3m	YA01.04	
	Cymbopogon obtectus	+	0.4m	YA56.10	
	Dicrasyli cordifolia	+	0.2m	YA56.06	
	Duperreya commixta	+	CR	YA03.06	
	Enneapogon polyphyllus	+	<0.1m	YA42.01	
	Eucalyptus gamophylla	+	2.5m	YA32.08	
	Eulalia aurea	+	0.4m	YA25.04	
	Euphorbia australis (mid-green form)	+	<0.1m	YA56.05	
	Euphorbia tannensis subsp. eremophila (Hamersley form)	+	0.2m	YA56.03	
	Hakea lorea subsp. lorea	+	2.3m	YA56.13	
	Mukia maderaspatana	+	CR	YA03.03	
	Paspalidium clementii	+	0.1m	YA56.04	
	Ptilotus astrolasius var. astrolasius	+	0.1m	YA56.12	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Rhagodia eremaea	+	1.5m	YA56.08	
	Senna artemisioides subsp. oligophylla x helmsii	+	0.15m	YA48.05	
	Sporobolus australasicus	+	<0.1m	YA02.06	
	Trichodesma zeylanicum var. zeylanicum	+	<0.1m	YA56.07	
	Triodia lanigera	1%	0.2m	YA56.09	
	Triodia pungens	65%	0.4-0.5m	YA56.02	

**Site** YA57

**Described** TE **Date** 4/20/2008 **Type** Q **Uniformity** 10 x 250m

**Season**

**Location** Near Chainage 327.

**MGA** 50 **mE** 764019 **mN** 7482333

**Habitat** Plain.

**Soil** Red, brown loam with clayey depressions.

**Rock** Ferrous rock.

**Vegetation** Corymbia hamersleyana scattered low trees over Eucalyptus gamophylla scattered mallee trees over Acacia sclerosperma subsp. sclerosperma, Acacia ancistrocarpa, Acacia inaequilatera, Acacia synchronicia open heath over Triodia basedowii, Triodia pungens open hummock grassland over Cenchrus ciliaris, Paraneurachne muelleri very open tussock grassland.

**Veg** Poor. Area disturbed by cattle, mounds of earth and weeds.

**Fire** Old.

**Notes** Aspect: North-east.  
Bare ground: 70%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

#### SPECIES

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	+		0.2m	YA57.06	
	Acacia ancistrocarpa	35%		1.0-2.0m	YA01.19	
	Acacia dictyophleba	+		2.0m	YA04.03	
	Acacia inaequilatera	2%		2.0m	YA01.25	
	Acacia pruinocarpa	+		1.0-5.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	7%		1.0-2.0m	YA61.03	
	Acacia synchronicia	1%		0.5-1.0m	YA50.04	
	Acacia tetragonophylla	+		0.6m	YA70.03	
	Acacia trudgeniana	+		2.0m	YA57.03	
	Aristida holathera var. holathera	+		0.1m	YA57.01	
	Aristida inaequiglumis	+		0.5m	YA01.10	
	Aristida ingrata				YA57.05b	
	Cenchrus ciliaris	5%		0.5m	YA01.31	
	Cleome viscosa	+		0.1m	YA01.18	
	Corchorus tectus	+		0.1m	YA01.04	
	Corymbia hamersleyana	1%		3.0m	YA57.07	Seedlings.
	Dactyloctenium radulans	+		<0.1m	YA02.10	
	Enneapogon polyphyllus	+		<0.1m	YA50.08	
	Eragrostis aff. eriopoda (WAS site 963)	+		0.4m	YA01.06	
	Eremophila longifolia	+		0.3m	YAOP02.1	
	Eriachne aristidea	+		<0.1m	YA01.22	
	Eucalyptus gamophylla	1%		2.0m	YAR03.02	
	Euphorbia coghlanii	+		0.1m	YA11.04	
	Euphorbia tannensis subsp. eremophila (Hamersley form)	+		<0.1m		
	Hakea lorea subsp. lorea	+		0.6m	YA03.12	
	Hibiscus sturtii var. platyklamys	+		0.2m	YA11.08	
	Mukia maderaspatana	+		CL	YA01.29	
	Paraneurachne muelleri	1%		<0.1m	YA01.03	
	Paspalidium clementii	+		<0.1m	YA57.02	
	Perotis rara	+		<0.1m	YA02.01	
	Pluchea dunlopia	+		0.1m	YA57.08	

<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	<0.1m	YA01.32
<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	1.0m	YA50.03
<i>Sclerolaena cornishiana</i>	+	0.1m	YA03.14
<i>Sclerolaena cornishiana</i>	+	0.3m	YA64.01
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)	+	1.0m	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	0.3m	YA04.05
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA26.12
<i>Sida cardiophylla</i>	+	0.6m	
<i>Solanum lasiophyllum</i>	+	0.2m	YA01.26
<i>Streptoglossa macrocephala</i>	+	0.1m	YA57.16
<i>Triodia angusta</i>	+	0.3m	YA57.05a
<i>Triodia basedowii</i>	20%	0.4m	YA59.01
<i>Triodia pungens</i>	1%	0.5m	YA59.06
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	<0.1m	YA57.04



<b>Site</b>	YA58		
<b>Described Season</b>	TE	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 328.		
<b>MGA</b>	50	764971 <b>mE</b>	7481774 <b>mN</b>
<b>Habitat</b>	Open shrubland plain.		
<b>Soil</b>	Red, brown gravelly loam with cobbles, pebbles and ferrous stones scattered on the soil surface. Clay areas in slight depressions.		
<b>Rock</b>	Ferrous rock, silicate and granite.		
<b>Vegetation</b>	Eucalyptus gamophylla scattered mallee trees over Acacia sclerosperma subsp. sclerosperma, Acacia ancistrocarpa, Acacia inaequilatera, Acacia dictyophleba high open shrubland over Triodia basedowii open hummock grassland over Cymbopogon obtectus, Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Good. Area disturbed by cattle and infrastructure.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 60%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover</b>	<b>C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	+		1.0m	YA58.05	VC (OP).
	Acacia ancistrocarpa	3%		2.0-3.0m	YA30.01	
	Acacia dictyophleba	1%		3.0m	YA04.03	
	Acacia inaequilatera	1%		2.0m	YA01.25	
	Acacia pruinocarpa	+		2.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	4%		2.0-3.0m	YA54.01	
	Acacia synchronicia	+		2.0m	YA05.15	
	Acacia tetragonophylla	+		1.0m	YA70.03	
	Aristida holathera var. holathera	+		0.3m	YA04.04	
	Aristida inaequiglumis	+		0.3m	YA01.10	
	Cenchrus ciliaris	1%		0.5m	YA01.31	
	Cymbopogon obtectus	+		0.2m	YA58.07	
	Cymbopogon obtectus	1%		0.5m	YA58.01	
	Dicrastylis cordifolia	+		0.6m	YA58.03	
	Duperreya commixta	+		CL	YA67.15	
	Enneapogon polyphyllus	+		0.1m	YA50.08	
	Eremophila forrestii subsp. forrestii	+		1.0m		
	Eriachne aristidea	+		0.1m	YA01.22	
	Eucalyptus gamophylla	1%		3.0m	YA58.06	
	Euphorbia tannensis subsp. eremophila (Hamersley form)	+		0.1m	YA58.08	
	Hakea lorea subsp. lorea	+		3.0m	YA03.12	
	Hakea lorea subsp. lorea	+		4.0m	YA02.15	
	Hibiscus sturtii var. platyklamys	+		0.1m	YA58.10	
	Iseilema eremaum	+		<0.1m	YA07.04	
	Mukia maderaspatana	+		CL	YA01.29	
	Paraneurachne muelleri	+		0.3m	YA01.03	
	Paraneurachne muelleri	+		0.1m	YA58.04	
	Paspalidium clementii	+		<0.1m	YA57.02	
	Ptilotus astrolasius var. astrolasius	+		0.4m	YA01.24	
	Ptilotus obovatus var. obovatus	+		1.0m	YA07.02	

Rhyncharrhena linearis	+	0.1m	YA58.09a
Sclerolaena cornishiana	+	0.2m	YA64.01
Senna artemisioides subsp. oligophylla	+	0.6m	YA11.06
Senna glutinosa subsp. glutinosa	+	2.0m	YA43.07
Sida cardiophylla	+	0.3m	
Solanum lasiophyllum	+	0.5m	YA01.26
Trianthera pilosa	+	0.1m	YA58.09b
Trichodesma zeylanicum var. zeylanicum	+	0.3m	YA01.34
Triodia basedowii	30%	0.5m	YA58.02

**Site** YA59

**Described** TE **Date** 4/20/2008 **Type** Q **Uniformity** 10 x 250m

**Season**

**Location** Chainage 329.

**MGA** 50 **mE** 765816 **mN** 7481153

**Habitat** Plain (shrubland).

**Soil** Red, brown loam with a few iron stones, cobbles and pebbles.

**Rock** Ferrous rock and silicate.

**Vegetation** Eucalyptus xerothermica scattered low trees over Eucalyptus gamophylla scattered mallee trees over Acacia synchronicia scattered tall shrubs over Acacia sclerosperma subsp. sclerosperma, Acacia ancistrocarpa, Acacia aneura var. conifera, Acacia synchronicia shrubland over Triodia basedowii, Triodia pungens open hummock grassland over Cenchrus ciliaris, Aristida inaequiglumis, Paraneurachne muelleri very open tussock grassland.

**Veg** Poor. Area disturbed by weeds, past clearing, cattle and earth mounds with rubbish within

**Fire** Moderate to young.

**Notes** Aspect: Slightly north-east.  
Bare ground: 80%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon aff. lepidum (1) (MET 15 352)	+		0.1m	YA61.10	
	Acacia ancistrocarpa	3%		2.0m	YA01.19	
	Acacia aneura var. conifera	2%		1.5m	YA59.08	
	Acacia sclerosperma subsp. sclerosperma	15%		2.0m	YA61.03	
	Acacia synchronicia	2%		1.0-5.0m	YA50.04	
	Anthobolus leptomerioides	+		0.1m	YA59.03	
	Aristida holathera var. holathera	+		0.1m	YA57.01	
	Aristida inaequiglumis	1%		0.3m	YA01.10	
	Atriplex flabelliformis	+		0.1m	YA59.04	
	Boerhavia coccinea	+		<0.1m	YA03.16	
	Cenchrus ciliaris	5%		0.5m	YA01.31	
	Cleome viscosa	+		0.1m	YA01.18	
	Corchorus sidoides	+		0.1m	YA04.02	
	Corchorus tectus	+		0.5m	YA01.04	
	Cymbopogon obtectus	+		0.3m	YA59.05	
	Cymbopogon obtectus	+		0.3m	YA01.17	
	Dactyloctenium radulans	+		<0.1m	YA02.10	
	Duperreya commixta	+		CL	YA67.15	
	Enneapogon polyphyllus	+		<0.1m	YA50.08	
	Eragrostis aff. eriopoda (WAS site 963)	+		0.2m	YA59.07	
	Eragrostis aff. eriopoda (WAS site 963)	+		0.5m	YA01.06	
	Eremophila longifolia	+		1.5m	YAOP02.1	
	Eriachne aristidea	+		<0.1m	YA01.22	
	Eucalyptus gamophylla	+		3.0m	YA02.12	VC (OP).
	Eucalyptus xerothermica	+		6.0m	YAR15.01	VC (OP).

<i>Eulalia aurea</i>	+	0.5m	YA01.28	
<i>Hakea lorea</i> subsp. <i>lorea</i>	+	1.0m	YA03.12	
<i>Hibiscus sturtii</i> var. <i>platyklamys</i>	+	0.3m	YA11.08	
<i>Iseilema eremaeum</i>	+	<0.1m	YA07.04	
<i>Maireana tomentosa</i>	+	0.3m	YA61.11	
<i>Maireana triptera</i>	+	0.6m	YA62.04	
<i>Paraneurachne muelleri</i>	1%	0.2m	YA01.03	
<i>Paspalidium clementii</i>	+	<0.1m	YA57.02	
<i>Psydrax latifolia</i>	+	1.5m	YA26.23	
<i>Ptilotus astrolasius</i> var. <i>astrolasius</i>	+	0.3m	YA01.24	
<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	0.1m	YA01.32	
<i>Scaevola spinescens</i>	+	1.0m	YA63.06	
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)	+	0.8m		
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	1.0m	YA04.05	VC (OP).
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	1.0m	YA11.06	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	<0.1m	YA48.05	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	0.6m	YA26.12	
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>	+	1.0m	YA59.09	
<i>Senna notabilis</i>	+	<0.1m	YA01.08	
<i>Senna notabilis</i>	+	0.2m	YA01.08	
<i>Solanum lasiophyllum</i>	+	0.4m	YA01.26	
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06	
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	0.2m	YA01.34	
<i>Triodia basedowii</i>	20%	0.5m	YA59.01	
<i>Triodia pungens</i>	1%	1.0m	YA59.06	Very old.
<i>Waltheria indica</i>	+	0.3m	YA59.02	

<b>Site</b>	YA60		
<b>Described Season</b>	KM	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 330.		
<b>MGA</b>	50	766465 <b>mE</b>	7480792 <b>mN</b>
<b>Habitat</b>	Denuded plain.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles. Some clay content.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Acacia aneura var. aneura, Acacia pruinocarpa high open shrubland over Acacia synchronicia scattered shrubs over Maireana triptera low scattered shrubs over Triodia pungens scattered hummock grasses over Cenchrus ciliaris scattered tussock grasses.		
<b>Veg</b>	Poor. Area disturbed by cattle, infrastructure and a small earth mound.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 90%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	+	1.9m	YA60.12	
	Acacia aneura var. aneura	2%	5.0m	YA48.12	
	Acacia pruinocarpa	1%	2.5m	YA04.01	
	Acacia synchronicia	1%	1.7m	YA05.15	
	Aristida contorta	+	0.1m	YA52.03	
	Aristida inaequiglumis	+	0.4m	YA56.01	
	Aristida ingrata	+	0.2m	YA60.17	
	Atalaya hemiglauca	+	0.5m	YA60.06	
	Cenchrus ciliaris	1%	0.4m	YA01.31	
	Cleome viscosa	+	0.4m	YA01.18	
	Corchorus sidoides	+	<0.1m	YA48.10	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Enneapogon caerulescens var. caerulescens	+	<0.1m	YA60.05	
	Enneapogon polyphyllus	+	<0.1m	YA42.01	
	Eremophila cuneifolia	+	0.5m	YA60.07	
	Eremophila latrobei subsp. filiformis	+	1.7m	YA60.11	
	Euphorbia aff. australis var. 1 (MET 12 337)	+	<0.1m	YA60.15	
	Euphorbia coghlanii	+	0.1m	YA11.04	
	Evolvulus alsinoides var. villosicalyx	+	<0.1m	YA23.05	
	Goodenia prostrata	+	<0.1m	YA60.16	
	Goodenia prostrata	+	<0.1m	YA60.10	
	Hibiscus burtonii	+	0.4m	YA60.09	
	Maireana triptera	1%	0.2m	YA60.01	
	Portulaca oleracea	+	<0.1m	YA25.20	
	Psyrax latifolia	+	0.5m	YA25.05	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Ptilotus helipteroides var. helipteroides	+	<0.1m	YA60.18	
	Ptilotus obovatus var. obovatus	+	0.5m	YA60.13	
	Ptilotus schwartzii var. schwartzii	+	0.4m	YA60.08	
	Sclerolaena cornishiana	+	0.2m	YA10.13	
	Sclerolaena eriacantha	+	0.2m	YA60.04	
	Senna artemisioides subsp. oligophylla x helmsii	+	0.4m	YA48.05	
	Senna glutinosa subsp. x luerssenii	+	0.7m	YA60.03	
	Senna notabilis	+	<0.1m	YA01.08	
	Solanum lasiophyllum	+	0.3m	YA03.02	



Sporobolus australasicus	+	0.1m	YA02.06
Trianthera triquetra var. triquetra	+	<0.1m	YA60.02
Triodia lanigera	+	0.2m	YA60.19
Triodia pungens	1%	0.4m	YA60.14

<b>Site</b>	YA61		
<b>Described Season</b>	TE	<b>Date</b>	4/20/2008
		<b>Type</b>	Q
			10 x 250m
		<b>Uniformity</b>	
<b>Location</b>	Chainage 331.		
<b>MGA</b>	50	767623 mE	7479964 mN
<b>Habitat</b>	Low open Mulga plain.		
<b>Soil</b>	Red, brown loam with scattered mixed pebbles covering ironstone. Some clay content.		
<b>Rock</b>	Ferrous rock, chert and silicate.		
<b>Vegetation</b>	Acacia aneura var. pilbarana low open woodland over Acacia pruinocarpa, Acacia synchronicia, Acacia xiphophylla high open shrubland over Acacia aneura var. intermedia, Acacia ancistrocarpa open shrubland over Eremophila forrestii subsp. forrestii low scattered shrubs over Triodia pungens, Triodia schinzii open hummock grassland.		
<b>Veg</b>	Poor to very poor. Area disturbed by weeds, infrastructure and mounds of earth. Very dry denuded vegetation.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 85%. Litter cover: Logs: +. Twigs: +. Lvs: 1%.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.1m	YA61.10	
	Acacia ancistrocarpa	1%	1.0-2.0m	YA01.19	
	Acacia aneura var. intermedia	5%	1.0m	YA61.07	
	Acacia aneura var. pilbarana	10%	6.0m	YA61.02	
	Acacia pruinocarpa	3%	3.0-4.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	+	1.0-5.0m	YA61.03	
	Acacia synchronicia	2%	2.0-3.0m	YA50.04	
	Acacia tetragonophylla	+	0.1m	YA70.03	
	Acacia xiphophylla	2%	3.0m	YA62.10	
	Anthobolus leptomerioides	+	1.2m	YA42.08	
	Aristida holathera var. holathera	+	0.1m	YA01.01	
	Aristida inaequiglumis	+	0.4m	YA01.10	
	Chloris pectinata	+	0.1m	YA07.06	
	Cleome viscosa	+	0.4m	YA01.18	
	Corchorus sidoides	+	0.2m	YA04.02	
	Corchorus sidoides	+	0.5m	YA61.04	
	Corchorus tectus	+	0.2m	YA01.04	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eremophila forrestii subsp. forrestii	1%	0.6-1.0m	YA62.12	
	Eremophila forrestii subsp. forrestii	+	1.0m		
	Eremophila latrobei subsp. filiformis	+	1.0m	YA62.02	
	Eriachne aristidea	+	<0.1m	YA01.22	
	Euphorbia coghlanii	+	0.1m	YA61.13	
	Maireana planifolia x villosa	+	0.5m	YA61.08	
	Maireana tomentosa	+	0.4m	YA61.01	
	Maireana tomentosa	+	0.5m	YA61.11	
	Maireana triptera	+	0.4m	YA62.04	
	Perotis rara	+	<0.1m	YA02.01	
	Portulaca oleracea	+	<0.1m	YA01.14	
	Psydrax latifolia	+	1.0m	YA26.23	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	

Rhagodia eremaea	+	1.5m	YA05.08
Salsola tragus	+	0.4m	YA12.20
Sclerolaena cornishiana	+	0.4m	YA03.14
Sclerolaena cornishiana	+	<0.1m	YA64.01
Senna artemisioides aff subsp oligophylla (thinly sericeous)	+	0.5m	YA61.09
Senna artemisioides subsp. oligophylla	+	0.3m	YA11.06
Senna notabilis	+	0.3m	YA01.08
Solanum aff. sturtianum	+	0.1m	YA61.12
Solanum lasiophyllum	+	0.5m	YA01.26
Triodia pungens	15%	<0.2m	YA61.05
Triodia schinzii	15%	<0.2m	YA61.06

**Site** YA62

<b>Described</b>	TE	<b>Date</b>	4/19/2008	<b>Type</b>	Q		25 x 100m
<b>Season</b>				<b>Uniformity</b>			
<b>Location</b>	Chainage 332.						
<b>MGA</b>	50			768546	mE		7479418mN
<b>Habitat</b>	Open Mulga woodland plain.						
<b>Soil</b>	Red, brown clayey loam with a few scattered cobbles and pebbles.						
<b>Rock</b>	Ferrous rock and silicate.						
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259), Acacia aneura var. intermedia low woodland over Acacia sclerosperma subsp. sclerosperma, Acacia synchronicia high shrubland over Eremophila cuneifolia, Rhagodia eremaea open shrubland over Maireana triptera low open shrubland over Cenchrus ciliaris scattered tussock grasses.						
<b>Veg</b>	Good to poor. Area affected by cattle and an old track passes through the plot.						
<b>Fire</b>	Moderate.						
<b>Notes</b>	Bare ground: 90%. Litter cover: Logs: +. Twogs: 1%. Lvs: 1%						

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover</b>	<b>C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	5%		6.0m	YA62.07	
	Acacia aff. aneura (narrow fine veined; site 1259)	10%		6.0m	YA62.06	
	Acacia aneura var. intermedia	3%		6.0m	YA62.16	VC (OP).
	Acacia sclerosperma subsp. sclerosperma	10%		2.0-3.0m	YA61.03	
	Acacia synchronicia	15%		5.0m	YA62.15	
	Acacia xiphophylla	+		5.0m	YA62.10	VC (OP).
	Atalaya hemiglauca	+		2.0m	YA62.13	VC (OP).
	Cenchrus ciliaris	1%		0.5m	YA01.31	
	Cleome viscosa	+		0.1m	YA01.18	
	Corchorus sidoides	+		0.1m	YA04.02	
	Enneapogon polyphyllus	+		0.1m	YA50.08	Dead.
	Eremophila cuneifolia	2%		1.2m	YA62.05	
	Eremophila forrestii subsp. forrestii	+		2.0m	YA62.12	VC (OP).
	Eremophila latrobei subsp. filiformis	+		2.0m	YA62.02	
	Grevillea striata	+		2.0m	YA62.11	VC (OP).
	Maireana planifolia	+		0.6m	YA62.03	
	Maireana planifolia	+		0.4m	YA62.09	
	Maireana triptera	5%		0.6m	YA62.04	
	Psyrax latifolia	+		0.3m	YA26.23	VC (OP).
	Ptilotus exaltatus var. exaltatus	+		0.1m	YA01.32	
	Ptilotus obovatus var. obovatus	+		0.6m	YA50.03	
	Rhagodia eremaea	1%		1.2m	YA05.08	
	Scaevola spinescens (broad form)	+		1.0-1.5m	YA62.01	
	Scaevola spinescens (broad form)	+		0.3m	YA62.08	
	Sclerolaena cornishiana	+		0.5m	YA64.01	
	Sclerolaena cuneata	+		0.1m	YA62.14	VC (OP).
	Senna artemisioides subsp. oligophylla	+		1.2m	YA11.06	
	Senna artemisioides subsp. oligophylla x helmsii	+		1.0m	YA26.12	
	Senna glutinosa subsp. glutinosa	+		1.0m	YA43.07	
	Senna glutinosa subsp. luerksenii	+		1.5m	YA06.22	VC (OP).
	Sida platycalyx	+		0.2m	YA04.10	
	Solanum lasiophyllum	+		0.5m	YA01.26	

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA63		
<b>Described Season</b>	TE	<b>Date</b>	4/20/2008 <b>Type</b> Q
			10 x 250m
<b>Location</b>	Chainage 300.		
<b>MGA</b>	50	769158 <b>mE</b>	7478952 <b>mN</b>
<b>Habitat</b>	Mulga plain/floodplain.		
<b>Soil</b>	Red, brown fine silt with scattered cobbles, pebbles and small iron stones.		
<b>Rock</b>	Ferrous rock, silicate and white calcrete.		
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259) low woodland over Eremophila longifolia, Acacia synchronicia, Acacia tetragonophylla, Acacia xiphophylla high shrubland over Maireana triptera, Scaevola spinescens, Rhagodia eremaea open shrubland over Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by cattle, weeds and infrastructure.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 95%. Litter cover: Logs: 1%. Twigs: 2%. Lvs: 1%.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Abutilon oxycarpum subsp. prostratum	+	CL	YA63.07
	Acacia aff. aneura (narrow fine veined; site 1259)	20%	8.0m	YA63.05
	Acacia citrinoviridis	+	<0.1m	YA28.14
	Acacia pruinocarpa	+	1.0m	YA04.01
	Acacia sclerosperma subsp. sclerosperma	+	2.0m	YA61.03
	Acacia synchronicia	3%	3.0m	YA50.04
	Acacia tetragonophylla	2%	3.0-4.0m	YA70.03
	Acacia xiphophylla	2%	3.0-4.0m	YA62.10
	Amyema fitzgeraldii	+	0.4m	YAOP05TE
	Aristida inaequiglumis	+	0.5m	YA01.10
	Cenchrus ciliaris	5%	0.5m	YA01.31
	Chloris pectinata	+	0.1m	YA07.06
	Corchorus sidoides	+	0.2m	YA04.02
	Cullen aff. lachnostachys (MET 15,154)	+	1.0m	YA63.01
	Cullen leucanthum	+	1.0m	YA63.10
	Cynodon dactylon	+	<0.1m	YA63.09
	Dactyloctenium radulans	+	<0.1m	YA02.10
	Duperreya commixta	+	CL	YA67.15
	Enchylaena tomentosa var. tomentosa	+	1.5m	YA63.08
	Eragrostis falcata	+	0.1m	YA63.03
	Eremophila forrestii subsp. forrestii	+	2.0m	YA62.12
	Eremophila longifolia	8%	3.0m	YA63.02
	Iseilema eremaeum	+	<0.1m	YA07.04
	Maireana triptera	1%	0.2m	YA62.04
	Malvastrum americanum	+	0.1m	YAOP1
	Paraneurachne muelleri	+	0.2m	YA01.03
	Rhagodia eremaea	1%	2.0m	YA05.08
	Rhynchosia minima var. australis	+	CL	YA05.07
	Scaevola spinescens	1%	1.0m	YA63.06
	Sclerolaena cornishiana	+	0.2m	YA64.01
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	+	1.0m	YA63.04
	Senna artemisioides subsp. oligophylla	+	1.0m	YA11.06



<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA26.12
<i>Senna notabilis</i>	+	0.5m	YA01.08
<i>Sesbania cannabina</i>	+	0.3m	YAOP06TE
<i>Solanum lasiophyllum</i>	+	0.4m	YA01.26
<i>Sporobolus australasicus</i>	+	<0.1m	YA02.06

<b>Site</b>	YA64		
<b>Described Season</b>	TE	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Near Chainage 333.5 (near railway crossing).		
<b>MGA</b>	50	769962 <b>mE</b>	7478491 <b>mN</b>
<b>Habitat</b>	Floodplain/plain.		
<b>Soil</b>	Red, brown loam with cracking clay and scattered cobbles and pebbles.		
<b>Rock</b>	Ferrous rock, silicate and calcrete.		
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259), Acacia pruinocarpa low open woodland over Acacia synchronicia, Acacia sclerosperma subsp. sclerosperma open scrub over Maireana triptera, Sclerolaena cornishiana, Ptilotus obovatus var. obovatus, Eremophila forrestii subsp. forrestii low open shrubland over Triodia longiceps, Triodia pungens very open hummock grassland over Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Poor. Area disturbed by cattle (grazing) and infrastructure. Large number of dead trees within the plot.		
<b>Fire</b>	Moderate.		
<b>Notes</b>	Bare ground: 90%. Litter cover: Logs: +. Twigs: +. Lvs: +. Very bare area between two major drains.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.1m	YA30.09	VC (OP).
	Acacia aff. aneura (narrow fine veined; site 1259)	3%	6.0m	YA64.03	
	Acacia dictyophleba	+	3.0m	YA04.03	VC (OP).
	Acacia pruinocarpa	3%	6.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	2%	2.0-3.0m	YA54.01	
	Acacia synchronicia	35%	2.0-3.0m	YA50.04	
	Acacia tetragonophylla	+	1.5m	YA70.03	
	Anthobolus leptomerioides	+	2.0m	YA42.08	VC (OP).
	Aristida holathera var. holathera	+	0.1m	YA01.01	Dead.
	Aristida inaequiglumis	+	0.3m	YA01.10	
	Atalaya hemiglauca	+	1.0m	YA09.03	
	Cenchrus ciliaris	2%	0.2m	YA01.31	
	Chloris pectinata	+	0.1m	YA07.06	VC (OP).
	Duperreya commixta	+	CL	YA67.15	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eragrostis xerophila	+	0.1m	YA64.02	
	Eremophila cuneifolia	+	1.0m	YA62.05	VC (OP).
	Eremophila forrestii subsp. forrestii	1%	1.0m	YA62.12	
	Eremophila latrobei subsp. filiformis	+	1.2m	YA62.02	
	Hakea lorea subsp. lorea	+	2.0m	YA02.15	
	Hibiscus burtonii	+	0.3m	YA64.06	VC (OP).
	Maireana triptera	2%	0.4m	YA62.04	
	Ptilotus obovatus var. obovatus	1%	0.5-1.0m	YA50.03	
	Rhagodia eremaea	+	1.2m	YA05.08	
	Sclerolaena cornishiana	1%	0.2m	YA64.01	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	+	1.0m	YA64.04	
	Senna artemisioides subsp. oligophylla	+	1.5m	YA11.06	
	Senna artemisioides subsp. oligophylla x helmsii	+	1.0m	YA26.12	VC (OP).
	Solanum lasiophyllum	+	0.3m	YA01.26	

Triodia longiceps	1%	<0.3m	YA64.05
Triodia pungens	1%	<0.5m	YA33.10

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA65		
<b>Described Season</b>	KM	<b>Date</b>	4/20/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>	Near Chainage 335.		
<b>MGA</b>	50	770642 <b>mE</b>	7477984 <b>mN</b>
<b>Habitat</b>	Plain/floodplain.		
<b>Soil</b>	Red, brown loam with scattered pebbles and rocks. Some clay content.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Eucalyptus gamophylla scattered mallee trees over Acacia dictyophleba, Eremophila longifolia open shrubland over Acacia sclerosperma subsp. sclerosperma, Acacia aff. aneura (narrow fine veined; site 1259) low open shrubland over Triodia pungens hummock grassland over Cenchrus ciliaris, Aristida inaequiglumis open tussock grassland.		
<b>Veg</b>	Very poor. Area disturbed by infrastructure, cattle, rubbish, earth mounds and weeds. Highly degraded and possibly cleared in the past.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 40%. Litter cover: Logs: +. Twigs: +. Lvs: +. Old quarry behind the plot.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	+	5.0m	YA65.04	
	Acacia aff. aneura (narrow fine veined; site 1259)	1%	0.5m	YA65.07b	
	Acacia ancistrocarpa	+	1.5m	YA30.01	
	Acacia dictyophleba	1%	1.5-2.0m	YA04.03	
	Acacia sclerosperma subsp. sclerosperma	5%	0.6m	YA65.01	
	Acacia synchronicia	+	0.6m	YA05.15	
	Amyema fitzgeraldii	+	0.4m	YAOP05TE	
	Anthobolus leptomerioides	+	2.2m	YA42.08	
	Aristida holathera var. holathera	+	0.2m	YA65.02	
	Aristida inaequiglumis	5%	0.4m	YA56.01	
	Cenchrus ciliaris	10%	0.2m	YA01.31	
	Cleome viscosa	+	0.1m	YA01.18	
	Corchorus tectus	+	0.3m	YA01.04	VC (OP).
	Duperreya commixta	+	CR	YA67.15	
	Enchylaena tomentosa var. tomentosa	+	0.5m	YA65.11	
	Eremophila longifolia	1%	1.5m	YA67.02	
	Eucalyptus gamophylla	+	3.0m	YA65.12	VC (OP).
	Eucalyptus gamophylla	+	2.5m	YA02.12	
	Grevillea wickhamii subsp. hispidula	+	0.4m	YA65.06	
	Hakea lorea subsp. lorea	+	2.3m	YA03.12	
	Hibiscus burtonii	+	0.2m	YA65.08	
	Maireana planifolia	+	2.0m	YA65.06	
	Ptilotus astrolasius var. astrolasius	+	0.25m	YA65.10	
	Senna artemisioides subsp. helmsii	+	0.1m	YA48.20	
	Senna artemisioides subsp. oligophylla x helmsii	+	<0.1m	YA48.05	

Sida aff. echinocarpa (MET 15,350)	+	<0.1m	YA65.03
Sida cardiophylla	+	0.5m	YA65.07a
Solanum lasiophyllum	+	0.3m	YA03.02
Stemodia grossa	+	1.8m	YA67.09
Triodia pungens	40%	0.4-0.5m	YA65.05
Triodia schinzii	+	0.3m	YA65.13

VC: Recorded within the vegetation community.

OP: Out of plot.



<b>Site</b>	YA66		
<b>Described Season</b>	KM	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 336.		
<b>MGA</b>	50	771553 <b>mE</b>	7477156 <b>mN</b>
<b>Habitat</b>	Plain.		
<b>Soil</b>	Red, brown loam with scattered rocks and pebbles. Some clay content.		
<b>Rock</b>	Ferrous rock, silicate and black granite.		
<b>Vegetation</b>	Eucalyptus xerothermica low open woodland over Eucalyptus gamophylla scattered mallee trees over Acacia aff. aneura (narrow fine veined; site 1259), Acacia sclerosperma subsp. sclerosperma high shrubland over Triodia pungens open hummock grassland over Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Good. Area affected by cattle, infrastructure, rubbish, cattle and an earth mound.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 60%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon leucopetalum	+	0.1m	YA66.08	
	Acacia aff. aneura (narrow fine veined; site 1259)	10%	2.0-4.0m	YA66.04	
	Acacia pruinocarpa	+	3.0m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	10%	2.0-3.0m	YA66.05	
	Acacia synchronicia	+	0.2m	YA05.15	
	Amyema fitzgeraldii	+	0.4m	YA66.12	OSH. VC (OP).
	Aristida inaequiglumis	+	0.2m	YA56.01	
	Capparis lasiantha	+	0.5m	YA66.07	
	Cenchrus ciliaris	3%	0.5m	YA66.03	
	Cleome viscosa	+	0.2m	YA01.18	VC (OP).
	Corchorus tectus	+	0.3m	YA01.04	
	Cymbopogon ambiguus	+	0.6m	YA66.06	
	Duperreya commixta	+	CR	YA67.15	
	Enneapogon polyphyllus	+	0.2m	YA42.01	
	Eriachne aristidea	+	<0.1m	YA01.22	
	Eucalyptus gamophylla	+	4.0m	YA32.08	
	Eucalyptus xerothermica	5%	4.0m	YA66.02	
	Hibiscus aff. coatesii	+	0.1m	YA66.10a	
	Hibiscus burtonii	+	0.4m	YA60.09	
	Maireana villosa	+	0.2m	YA66.10b	
	Ptilotus obovatus var. obovatus	+	1.0m	YA60.13	
	Scaevola parvifolia subsp. pilbarae	+	0.1m	YA66.11	
	Senna artemisioides subsp. helmsii	+	0.5m	YA48.20	
	Senna artemisioides subsp. oligophylla x helmsii	+	0.2m	YA48.05	
	Senna glutinosa subsp. luerssenii x stricta	+	0.1m	YA66.13	
	Solanum lasiophyllum	+	0.1m	YA03.02	
	Sporobolus australasicus	+	<0.1m	YA02.06	
	Stylobasium spathulatum	+	0.1m	YA66.09	
	Triodia pungens	30%	0.4m	YA66.01	

OSH: Obligate stem hemiparasite.  
VC: Recorded within the vegetation community.  
OP: Out of plot.

**Site** YA67  
**Described Season** KM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m  
**Location** Near Chainage 339.  
**MGA** 50 **772119 mE** **7476151 mN**  
**Habitat** Plain.  
**Soil** Red, brown loam with scattered rocks and pebbles. Some clay content.  
**Rock** Ferrous rock and silicate.  
**Vegetation** Eucalyptus trivalvis, Eucalyptus gamophylla low open mallee woodland over Acacia sclerosperma subsp. sclerosperma shrubland over Triodia longiceps open hummock grassland over Cenchrus ciliaris very open tussock grassland.  
**Veg** Poor. Area disturbed by infrastructure, cattle and rubbish.  
**Fire** Old.  
**Notes** Bare ground: 70%.  
 Litter cover: Logs: +. Twigs: 1%. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon leucopetalum	+		0.2m	YA67.13	
	Acacia ancistrocarpa	+		1.0-1.6m	YA30.01	
	Acacia sclerosperma subsp. sclerosperma	20%		1.7m	YA61.03	
	Acacia synchronicia	+		2.0m	YA05.15	
	Acacia tetragonophylla	+		0.5m	YA70.03	
	Amyema fitzgeraldii	+		0.4m	YAOPO5TE	OSH.VC (OP).
	Aristida holathera var. holathera	+		<0.1m	YA01.01	
	Aristida inaequiglumis	+		0.4m	YA56.01	
	Capparis spinosa var. nummularia	+		1.0m		VC (OP).
	Cenchrus ciliaris	1%		0.4m	YA01.31	
	Cleome viscosa	+		0.2m	YA01.18	
	Corchorus tectus	+		0.1m	YA01.04	
	Cymbopogon obtectus	+		0.2m	YA67.11	
	Duperreya commixta	+		CR	YA67.15	
	Enneapogon polyphyllus	+		<0.1m	YA42.01	
	Eragrostis sp.	+		0.2m	YA32.10	
	Eremophila cuneifolia	+		0.5m	YA60.07	
	Eremophila longifolia	+		1.5m	YA67.02	
	Eucalyptus gamophylla	1%		3.0-4.0m	YA02.12	VC (OP).
	Eucalyptus trivalvis	7%		4.0-6.0m	YA67.07	
	Eucalyptus xerothermica	+		3.0m	YAR15.01	VC (OP).
	Eulalia aurea	+		0.4m	YA01.28	
	Euphorbia tannensis subsp. eremophila (Hamersley form)	+		<0.1m		
	Grevillea striata	+		3.5m	YA69.10	
	Hibiscus burtonii	+		<0.1m	YA67.12	
	Paraneurachne muelleri	+		0.1m	YA01.03	
	Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8)	+		<0.1m	YA67.01	
	Pluchea dunlopii	+		<0.1m	YA67.04	
	Ptilotus obovatus var. obovatus	+		0.5m	YA69.03	
	Ptilotus polystachyus var. polystachyus	+		<0.1m	YA67.14	
	Rhynchosia minima var. australis	+		CR	YA67.03	

<i>Sclerolaena cornishiana</i>	+	0.2m	YA64.01
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	+	<0.1m	YA48.20
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.7m	YA48.05
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	+	<0.1m	YA67.05
<i>Solanum lasiophyllum</i>	+	0.3m	YA03.02
<i>Stemodia grossa</i>	+	0.4m	YA67.09
<i>Stemodia grossa</i>	+	0.4m	YA67.08
<i>Triodia longiceps</i>	20%	0.4m	YA67.06
<i>Triodia longiceps</i>	1%	0.4m	
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	<0.1m	YA01.16

OSH: Obligate stem hemiparasite.

VC: Recorded within the vegetation community.

OP: Out of plot.

<b>Site</b>	YA68		
<b>Described Season</b>	TE	<b>Date</b>	4/20/2008 <b>Type</b> Q
			25 x 100m
<b>Location</b>	Chainage 338.		
<b>MGA</b>	50	772995 <b>mE</b>	7478175 <b>mN</b>
<b>Habitat</b>	Eucalyptus gamophylla plain.		
<b>Soil</b>	Red, brown loamy sand with scattered cobbles, pebbles and small iron stones. Clay in some areas.		
<b>Rock</b>	Ferrous rock and sillicate.		
<b>Vegetation</b>	Eucalyptus socialis subsp. eucentrica and Eucalyptus gamophylla low mallee woodland over Acacia ancistrocarpa, Acacia sclerosperma subsp. sclerosperma, Keraudrenia velutina subsp. elliptica low open shrubland over Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia longiceps open hummock grassland over Cenchrus ciliaris very open tussock grassland.		
<b>Veg</b>	Good to poor. Area disturbed by weeds, cattle and mounds of earth. Area also denuded.		
<b>Fire</b>	Old.		
<b>Notes</b>	Bare ground: 75%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

#### SPECIES

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	15%	1.0m	YA01.19	
	Acacia sclerosperma subsp. sclerosperma	2%	0.2m	YA61.03	
	Acacia synchronicia	+	1.5m	YA50.04	
	Acacia synchronicia	+	0.3m	YA68.09	
	Aristida holathera var. holathera	+	0.1m	YA04.04	
	Aristida inaequiglumis	+	0.3m	YA01.10	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	2%	0.3m	YA01.31	
	Cleome viscosa	+	<0.1m	YA01.18	
	Corchorus tectus	+	0.2m	YA01.04	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Dodonaea petiolaris	+	1.0m	YA68.11	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.1m	YA01.06	
	Eremophila forrestii subsp. forrestii	+	1.0m	YA68.02	
	Eremophila lanceolata	+	0.5m	YA68.10	
	Eucalyptus gamophylla	8%	3.0m	YA68.06	
	Eucalyptus socialis subsp. eucentrica	5%	3.0m	YAOP12	
	Ipomoea muelleri	+	CL	YA13.08	
	Iseilema eremaeum	+	<0.1m	YA07.04	
	Keraudrenia velutina subsp. elliptica	1%	0.5m	YA68.03	
	Maireana planifolia x villosa	+	0.4m	YA70.05	
	Pterocaulon sphaeranthoides	+	3.0m	YA07.08	VC (OP).
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Ptilotus obovatus var. obovatus	+	0.5m	YA50.03	
	Salsola tragus	+	0.1m	YA12.20	
	Sclerolaena cornishiana	+	0.1m	YA03.14	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	+	0.3m		
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	+	0.6m	YA68.08	
	Senna artemisioides subsp. oligophylla	+	0.5m	YA11.06	

Solanum lasiophyllum	+	0.5m	YA01.26
Sporobolus australasicus	+	<0.1m	YA02.06
Stylobasium spathulatum	+	0.5m	YA68.05
Stylobasium spathulatum	+	0.4m	YA68.07
Triodia longiceps	2%	2.0m	YA68.01
Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)	20%	0.3m	YA68.04

VC: Recorded within the vegetation community.

OP: Out of plot.



**Site** YA69

**Described** KM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location** Chainage 339.

**MGA** 50 **mE** 773227 **mN** 7474330

**Habitat** Dense Mulga plain.

**Soil** Red, brown loam with scattered rocks and pebbles. Some clay present.

**Rock** Ferrous rock and silicate.

**Vegetation** Acacia sclerosperma subsp. sclerosperma, Acacia aff. aneura (narrow fine veined; site 1259) high shrubland over Acacia synchronicia low open shrubland over Triodia longiceps open hummock grassland over Cenchrus ciliaris very open tussock grassland.

**Veg** Good. Area disturbed by infrastructure, cattle, rubbish (tyre, metal poles, cans) and weeds.

**Fire** Old.

**Notes** Bare ground: 70%.  
Litter cover: Logs: +. Twigs: 1%. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	10%		3.0-4.0m	YA69.02	
	Acacia sclerosperma subsp. sclerosperma	20%		3.0m	YA69.01	
	Acacia synchronicia	2%		0.7m	YA05.15	
	Anthobolus leptomerioides	+		1.7m	YA42.08	
	Capparis umbonata	+		3.5m	YA69.09	VC (OP).
	Cenchrus ciliaris	7%		0.2m	YA01.31	
	Corchorus sidoides	+		<0.1m	YA48.10	
	Duperreya commixta	+		0.2m	YA69.12	VC (OP).
	Enchylaena tomentosa var. tomentosa	+		0.7m	YA69.08	
	Eremophila longifolia	+		0.2m	YA69.11	VC (OP).
	Grevillea striata	+		3.0m	YA69.10	VC (OP).
	Hibiscus burtonii	+		1.0m	YA70.06	
	Ptilotus obovatus var. obovatus	+		0.3m	YA69.03	
	Rhagodia eremaea	+		1.6m	YA05.08	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	+		0.2m	YA69.07	
	Senna artemisioides subsp. oligophylla x helmsii	+		1.7m	YA48.05	
	Sida aff. fibulifera (FMG 125-20)	+		<0.1m	YA69.05	
	Stylobasium spathulatum	+		1.2m	YA69.06	
	Triodia longiceps	20%		0.3-0.4m	YA69.04	

VC: Recorded within the vegetation community.  
OP: Out of plot.

**Site** YA70

**Described** KM **Date** 4/20/2008 **Type** Q **25 x 100m**

**Season** **Uniformity**

**Location** Chainage 340.

**MGA** 50 **773734 mE** **7473444 mN**

**Habitat** Open Mulga plain.

**Soil** Red, brown loam with scattered rocks and pebbles. Cracking clay present.

**Rock** Ferrous rock, silicate and black granite.

**Vegetation** Acacia aff. aneura (narrow fine veined; site 1259), *Corymbia candida* low woodland over *Acacia pruinocarpa*, *Acacia synchronicia* high open shrubland over *Eremophila latrobei* subsp. *filiformis* scattered shrubs.

**Veg** Poor. Area disturbed by cattle, infrastructure and rubbish. Many dead *Acacia aneura*.

**Fire** Moderate.

**Notes** Bare ground: 95%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.  
Very little understorey.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259)	15%	6.0m	YA70.08	
	<i>Acacia pruinocarpa</i>	5%	3.0m	YA04.01	
	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>	+	2.5m	YA61.03	
	<i>Acacia synchronicia</i>	1%	2.0m	YA50.04	
	<i>Acacia tetragonophylla</i>	+	0.4m	YA70.03	
	<i>Corymbia candida</i>	1%	4.0m	YA70.04	
	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	+	0.5m	YA70.07	
	<i>Enneapogon polyphyllus</i>	+	<0.1m	YA50.08	
	<i>Eremophila latrobei</i> subsp. <i>filiformis</i>	1%	1.5m	YA62.02	
	<i>Hakea lorea</i> subsp. <i>lorea</i>	+	<0.1m	YA03.12	
	<i>Hibiscus burtonii</i>	+	0.5m	YA70.06	
	<i>Hibiscus burtonii</i>	+	0.1m	YA70.02	
	<i>Maireana planifolia</i> x <i>villosa</i>	+	0.3m	YA70.05	
	<i>Portulaca oleracea</i>	+	<0.1m	YA01.14	
	<i>Psyrax latifolia</i>	+	0.5m	YA25.05	
	<i>Psyrax latifolia</i>	+	1.0m	YA26.23	
	<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	+	0.1m	YA01.32	
	<i>Ptilotus obovatus</i> var. <i>obovatus</i>	+	1.0m	YA50.03	
	<i>Sclerolaena cornishiana</i>	+	<0.1m	YA10.13	
	<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)	+	0.5m	YA70.01	
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	1.0m	YA11.06	
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1.0m	YA26.12	
	<i>Solanum lasiophyllum</i>	+	0.3m	YA01.26	

**Site** YB01

**Described** RM **Date** 4/15/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 **792699 mE** **7420315 mN**

**Habitat** Lower slopes (base of rocky hills).

**Soil** Rocky dark red, brown sand.

**Rock** Ironstone.

**Vegetation** Corymbia hamersleyana low open woodland over Acacia citrinoviridis high open shrubland over Acacia bivenosa, Acacia aneura var. aneura, Acacia synchronicia, Senna glutinosa subsp. pruinosa, Acacia sclerosperma subsp. sclerosperma open heath over Triodia pungens hummock grassland over Cenchrus ciliaris, Cymbopogon obtectus, Paraneurachne muelleri, Aristida contorta, Aristida ingrata, Enneapogon caerulescens var. caerulescens tussock grassland over Phyllanthus maderaspatensis, Cleome viscosa very open herbland.

**Veg** Good. Area disturbed by previous ripping and weeds.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	+	0.4m	YB01.15	
	Acacia aneura var. aneura	20%	1.0m	YB01.05	
	Acacia bivenosa	30%	1.0m	YB01.06	
	Acacia citrinoviridis	6%	3.5m	YB01.02	
	Acacia inaequilatera	1%	2.5m	YB01.21	
	Acacia ligulata	+	2.0m	YB01.31	
	Acacia monticola	+	3.0m	YB01.30	
	Acacia sclerosperma subsp. sclerosperma	1%	3.0m	YB01.22	
	Acacia synchronicia	4%	1.5m	YB01.08	
	Aristida contorta	2%	0.2m	YB01.17	
	Aristida ingrata	2%	0.8m	YB01.18	
	Cenchrus ciliaris	50%	0.4m	YB01.14	
	Cleome viscosa	2%	0.2m	YB01.19	
	Corymbia hamersleyana	2%	5.0m	YB01.01	
	Cymbopogon obtectus	3%	0.4m	YB01.11	
	Dactyloctenium radulans	1%	0.1m	YB01.23	
	Duperreya commixta	1%	CR	YB01.03	
	Enneapogon caerulescens var. caerulescens	10%	0.3m	YB01.13	
	Eragrostis tenellula	1%	0.1m	YB01.16	
	Gomphrena kanisii	+	0.2m	YB01.34	
	Goodenia stobbsiana	+	0.2m	YB01.26	
	Hakea lorea subsp. lorea	1%	1.0m	YB01.07	
	Heliotropium paniculatum	+	0.2m	YB01.28	
	Ipomoea muelleri			YB01.20a	
	Iseilema dolichotrichum	+	0.1m	YB01.24	
	Paraneurachne muelleri	3%	0.4m	YB01.29	
	Phyllanthus maderaspatensis	+	0.5m	YB01.10	
	Phyllanthus maderaspatensis	2%	0.1m	YB01.20	
	Ptilotus astrolasius var. astrolasius	+	0.3m	YB01.27	
	Rhynchosia minima var. australis	2%	CR	YB01.12	
	Sclerolaena densiflora	+	0.1m	YB01.35	Form 'C'
	Senna glutinosa subsp. glutinosa	1%	0.8m	YB01.09	
	Senna glutinosa subsp. pruinosa	2%	1.2m	YB01.04	

Senna notabilis	+	0.3m	YB01.33	
Sida echinocarpa	1%	0.2m	YB01.25	Atypical.
Triodia pungens	50%	1.2m	YB01.32	

<b>Site</b>	YB02		
<b>Described Season</b>	RM	<b>Date</b>	4/15/2008
		<b>Type</b>	Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	792775	mE 7420667 mN
<b>Habitat</b>	Hill top.		
<b>Soil</b>	Rocky skeletal.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Eucalyptus leucophloia subsp. leucophloia low open woodland over Acacia aneura var. aneura, Senna glutinosa subsp. glutinosa, Acacia bivenosa open heath over Calytrix carinata, Ptilotus rotundifolius, Gompholobium karijini low shrubland over Triodia sp. Shovelanna Hill (S. van Leeuwen 3835), Triodia pungens hummock grassland over Cenchrus ciliaris, Eriachne lanata, Cymbopogon oblectus open tussock grassland.		
<b>Veg</b>	Very good. Area affected by weeds and past clearing (i.e track present).		
<b>Fire</b>	Very Old.		
<b>Notes</b>	Aspect: East.		

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	1%	0.5m	YB01.15	
	Acacia adoxa var. adoxa	1%	0.2m	YB02.04	
	Acacia aneura var. aneura	35%	1.2m	YB01.05	
	Acacia bivenosa	2%	1.2m	YB01.06	
	Acacia inaequilatera	1%	0.4m	YB01.21	
	Aristida contorta	1%	0.3m	YB01.17	
	Calytrix carinata	20%	0.6m	YB02.12	
	Cenchrus ciliaris	15%	0.6m	YB01.14	
	Corchorus lasiocarpus subsp. parvus	+	0.2m	YB02.22	
	Corchorus lasiocarpus subsp. parvus	+	0.2m	YB02.26	
	Cymbopogon oblectus	2%	0.6m	YB01.11	
	Dampiera candidans	+	0.2m	YB02.25	
	Duperreya commixta	+	CL	YB01.03	
	Enchylaena tomentosa var. tomentosa			YB02.23a	
	Enneapogon polyphyllus	1%	0.1m	YB02.18	
	Eremophila latrobei subsp. glabra	1%	1.3m	YB02.23	
	Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004) PN	1%	0.6m	YB02.07	SM.
	Eriachne lanata	5%	0.4m	YB02.11	
	Eriachne lanata	3%	0.6m	YB02.06	
	Eucalyptus leucophloia subsp. leucophloia	5%	4.0m	YB02.10	
	Gompholobium karijini	2%	0.6m	YB02.09	
	Hakea lorea subsp. lorea	+	3.5m	YB02.31	
	Hibiscus sturtii var. truncatus	+	0.2m	YB02.33	
	Maireana planifolia	+	0.2m	YB02.19	
	Ptilotus clementii	+	0.1m	YB02.03	
	Ptilotus obovatus var. obovatus	+	0.5m	YB02.14	
	Ptilotus rotundifolius	2%	0.4m	YB02.13	
	Senna glutinosa subsp. glutinosa	10%	1.5m	YB01.09	
	Senna glutinosa subsp. pruinosa	+	0.9m	YB01.04	
	Sida pilbarensis (ferruginous form)	+	0.7m	YB02.30	
	Solanum lasiophyllum	+	0.3m	YB02.32	
	Stenopetalum decipiens	1%	0.4m	YB02.08	



Triodia pungens	20%	0.8m	YB02.28
Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)	20%	0.8m	YB02.27

SM: Sterile maternal - provisional ID.

**Site** YB03

**Described** RM **Date** 4/15/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **793044 mE** **7421197 mN**

**Habitat** Drainage.

**Soil** Dark brown rocky sandy loam.

**Rock** Ironstone.

**Vegetation** Eucalyptus victrix low woodland over Petalostylis cassioides high open shrubland over Acacia citrinoviridis, Acacia inaequilatera shrubland over Acacia sclerosperma subsp. sclerosperma, Tephrosia rosea var. glabrior low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Eriachne tenuiculmis, Cymbopogon procerus tussock grassland.

**Veg** Poor. Area disturbed by weeds and cattle grazing.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia citrinoviridis	8%	1.5m	YB01.02
	Acacia inaequilatera	4%	2.0m	YB01.21
	Acacia maitlandii	+	0.8m	YB03.10
	Acacia sclerosperma subsp. sclerosperma	4%	0.8m	YB01.22
	Amaranthus sp.	+	0.2m	YB03.15
	Cenchrus ciliaris	50%	0.6m	YB01.14
	Cleome viscosa	+	0.3m	YB03.14
	Cymbopogon procerus	1%	0.6m	YB03.09
	Eragrostis tenellula	+	0.2m	YB03.17
	Eriachne tenuiculmis	2%	0.3m	YB03.05
	Eucalyptus victrix	20%	9.0m	YB03.01
	Euphorbia australis (mid-green form)	+	0.1m	YB03.18
	Euphorbia coghlanii	+	0.2m	YB03.08
	Gossypium robinsonii	1%	2.0m	YB03.11
	Maireana planifolia	+	0.6m	YB02.19
	Petalostylis cassioides	2%	2.5m	YB03.12
	Phyllanthus maderaspatensis	+	0.1m	YB01.10
	Phyllanthus maderaspatensis	+	0.1m	YB01.20
	Rhynchosia minima var. australis	+	CR	YB01.12
	Stemodia grossa	+	0.2m	YB03.19
	Tephrosia rosea var. glabrior	1%	0.4m	YB03.04
	Themeda triandra	+	0.5m	YB03.13
	Triodia pungens	5%	1.0m	YB03.22

<b>Site</b>	YB04		
<b>Described Season</b>	RM	<b>Date</b>	4/15/2008
		<b>Type</b>	Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	793513	mE 7421977 mN
<b>Habitat</b>	Floodplain - flats.		
<b>Soil</b>	Brown sandy loam with scattered rocks.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Corymbia aspera open woodland over Acacia citrinoviridis, Acacia aneura var. aneura high open shrubland over Acacia sclerosperma subsp. sclerosperma, Acacia synchronicia shrubland over Cenchrus ciliaris, Themeda triandra, Dactyloctenium radulans, Eragrostis aff. eriopoda (WAS site 963), Aristida holathera var. latifolia, Perotis rara closed tussock grassland over Portulaca oleracea, Goodenia sp., Alternanthera angustifolia very open herbland.		
<b>Veg</b>	Good. Area disturbed by weeds and cattle grazing.		
<b>Fire</b>	Very old.		
<b>Notes</b>			

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Acacia aneura var. aneura	1%	2.3m	YB04.07
	Acacia citrinoviridis	3%	2.5m	YB01.02
	Acacia sclerosperma subsp. sclerosperma	25%	1.0m	YB01.22
	Acacia synchronicia	5%	1.2m	YB01.08
	Acacia victoriae	+	0.6m	YB04.05
	Acacia victoriae	+	0.3m	YB04.06
	Alternanthera angustifolia	2%	0.2m	YB04.13
	Aristida holathera var. latifolia	2%	0.4m	YB04.28
	Cenchrus ciliaris	60%	0.6m	YB01.14
	Cleome viscosa	+	0.1m	YB04.22
	Corchorus lasiocarpus subsp. parvus	+	0.2m	YB04.25
	Corymbia aspera	2%	10.0m	YB04.01
	Crotalaria medicaginea	+	0.1m	YB04.30
	Dactyloctenium radulans	3%	0.1m	YB01.23
	Eragrostis aff. eriopoda (WAS site 963)	2%	0.4m	YB04.27
	Glycine canescens	+	CR	YB04.09
	Gomphrena sp.	+	0.1m	YB04.24
	Goodenia microptera	+	0.2m	YB04.20
	Goodenia sp.	3%	0.1m	YB04.15
	Hibiscus sturtii var. platyklamys	+	0.2m	YB04.29
	Ipomoea muelleri	+	CR	YB04.11
	Marsilea hirsuta	+	0.1m	YB04.21
	Perotis rara	2%	0.1m	YB04.23
	Phyllanthus maderaspatensis	+	0.1m	YB01.10
	Portulaca oleracea	3%	0.1m	YB04.16
	Rhynchosia minima var. australis	1%	CL	YB01.12
	Senna notabilis	+	0.1m	YB01.33
	Sida aff. fibulifera (FMG 125-20)	+	0.2m	YB04.26
	Streptoglossa bubakii	+	0.2m	YB04.12
	Themeda triandra	5%	0.8m	YB03.13
	Tribulus macrocarpus	+	0.1m	YB04.32
	Trichodesma zeylanicum var. zeylanicum	+	0.1m	YB04.17

**Site** YB05

**Described** RM **Date** 4/15/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **793847 mE** **7422622 mN**

**Habitat** Hill top.

**Soil** Rocky skeletal.

**Rock** Ironstone.

**Vegetation** Eucalyptus leucophloia subsp. leucophloia scattered low trees over Acacia bivenosa, Senna glutinosa subsp. glutinosa, Senna glutinosa subsp. pruinosa shrubland over Ptilotus rotundifolius, Maireana georgei, Acacia aneura var. aneura, Aristida ingrata, Eremophila latrobei subsp. glabra low shrubland over Triodia wiseana, Triodia sp. Shovelanna Hill (S. van Leeuwen 3835) closed hummock grassland over Cenchrus ciliaris, Themeda triandra, Enneapogon caerulescens var. caerulescens, Cymbopogon procerus, Aristida ingrata open tussock grassland.

**Veg** Very good. Area disturbed by weeds.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia adoxa var. adoxa	+	0.2m	YB02.04	
	Acacia aneura var. aneura	3%	0.4m	YB01.05	
	Acacia bivenosa	8%	1.8m	YB01.06	
	Acacia dictyophleba	1%	0.8m	YB05.14	
	Aristida ingrata	2%	0.6m	YB01.18	
	Cenchrus ciliaris	15%	0.6m	YB01.14	
	Corchorus lasiocarpus subsp. lasiocarpus	+	0.3m	YB05.12	
	Cymbopogon procerus	2%	0.6m	YB05.17	
	Enneapogon caerulescens var. caerulescens	2%	0.1m	YB01.13	
	Eremophila latrobei subsp. glabra	2%	0.8m	YB02.23	
	Eucalyptus leucophloia subsp. leucophloia	1%	5.0m	YB05.09	
	Maireana georgei	3%	0.3m	YB05.06	MET form 'A'.
	Nicotiana benthamiana	+	0.1m	YB03.19	
	Paraneurachne muelleri	1%	0.2m	YB05.07	
	Portulaca oleracea	+	0.1m	YB04.16	
	Ptilotus astrolasius var. astrolasius	+	0.2m	YB01.27	
	Ptilotus calostachyus var. calostachyus	+	0.5m	YB05.15	
	Ptilotus rotundifolius	6%	0.6m	YB02.13	
	Senna glutinosa subsp. glutinosa	2%	1.0m	YB01.09	
	Senna glutinosa subsp. pruinosa	2%	1.2m	YB01.04	
	Solanum lasiophyllum	+	0.4m	YB02.32	
	Stenopetalum decipiens	1%	0.3m	YB02.08	
	Tephrosia rosea var. glabrior	+	0.3m	YB05.22	
	Themeda triandra	3%	0.6m	YB03.13	
	Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)	5%	0.6m	YB05.04	
	Triodia wiseana	80%	1.2m	YB05.05	

**Site** YB06

**Described Season** RM **Date** 4/15/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **mE** 794545 **mN** 7424017

**Habitat** Sandplain.

**Soil** Fine red sand.

**Rock** Ironstone.

**Vegetation** Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba, Acacia pachyacra high shrubland over Acacia ancistrocarpa, Petalostylis cassioides shrubland over Triodia pungens, Triodia schinzii hummock grassland over Cenchrus ciliaris open tussock grassland over Bonamia rosea very open hermland.

**Veg** Very good. Area affected by weeds and clearing for roads.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	20%	1.2m	YB06.01	
	Acacia dictyophleba	10%	2.5m	YB06.06	
	Acacia pachyacra	4%	3.0m	YB06.11	
	Acacia sclerosperma subsp. sclerosperma	10%	2.5m	YB06.15	
	Bonamia rosea	3%	0.1m	YB06.04	
	Cenchrus ciliaris	30%	0.8m	YB01.14	
	Dicrastylis cordifolia	+	0.4m	YB06.18	
	Goodenia microptera	+	0.2m	YB06.07	
	Hakea lorea subsp. lorea	+	0.4m	YB02.31	
	Isotropis atropurpurea	+	0.3m	YB06.16	
	Petalostylis cassioides	2%	1.0m	YB06.02	
	Scaevola parvifolia subsp. pilbarae	+	0.3m	YB06.10	
	Senna artemisioides subsp. oligophylla x helmsii	+	0.7m	YB06.12	
	Solanum lasiophyllum	+	0.3m	YB02.32	
	Stylobasium spathulatum	1%	0.8m	YB06.17	
	Tribulus macrocarpus	+	0.1m	YB04.32	
	Triodia pungens	50%	0.8m	YB06.09	
	Triodia schinzii	5%	1.2m	YB06.13	

**Site** YB07

**Described** RM **Date** 4/15/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 795497 **mE** 7425878 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand.

**Rock** Ironstone.

**Vegetation** Corymbia hamersleyana low open woodland over Acacia ancistrocarpa, Acacia pyrifolia high open shrubland over Acacia dictyophleba, Acacia bivenosa open heath over Petalostylis cassioides low open shrubland over Triodia lanigera hummock grassland over Cenchrus ciliaris, Eragrostis aff. eriopoda (WAS site 963) open tussock grassland over Scaevola parvifolia subsp. pilbarae, Cleome viscosa very open herbland.

**Veg** Good. Area disturbed by weeds and ripping.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	5%	2.5m	YB06.01	
	Acacia ancistrocarpa	+	0.2m	YB07.27	
	Acacia bivenosa	15%	1.2m	YB01.06	
	Acacia citrinoviridis	+	1.8m	YB01.02	
	Acacia dictyophleba	30%	1.2m	YB05.14	
	Acacia pyrifolia	2%	2.5m	YB07.13	
	Acacia trudgeniana	1%	0.8m	YB07.16	
	Bonamia rosea	+	0.3m	YB06.04	
	Cenchrus ciliaris	10%	0.6m	YB01.14	
	Cleome viscosa	1%	0.3m	YB04.22	
	Corchorus lasiocarpus	+	0.3m	YB05.12	
	Corymbia hamersleyana	3%	4.5m	YB07.08	
	Cymbopogon obtectus	1%	0.9m	YB01.11	
	Eragrostis aff. eriopoda (WAS site 963)	6%	0.4m	YB04.27	
	Eulalia aurea	+	0.8m	YB07.21	
	Goodenia stobbsiana	1%	0.3m	YB01.26	
	Gossypium robinsonii	1%	2.5m	YB03.11	
	Hakea lorea subsp. lorea	1%	3.0m	YB02.31	
	Hibiscus sturtii var. platyklamys	1%	0.8m	YB07.25	
	Isotropis atropurpurea	1%	0.4m	YB07.14	
	Mukia maderaspatana	+	CR	YB07.23	
	Petalostylis cassioides	6%	0.6m	YB07.01	
	Scaevola parvifolia subsp. pilbarae	3%	0.3m	YB06.10	
	Senna artemisioides subsp. oligophylla x helmsii	1%	0.8m	YB06.12	
	Senna glutinosa subsp. pruinosa	+	0.8m	YB01.04	
	Trianthema pilosa	+	0.1m	YB07.02	
	Tribulus macrocarpus	1%	0.2m	YB04.32	
	Triodia lanigera	60%	0.9m	YB07.10	



**Site** YB08

**Described** RM **Date** 4/15/2008 **Type** Q  
**Season** **Uniformity**

**Location**

**MGA** 50 796348 **mE** 7427989 **mN**

**Habitat** Sandplain (some lateritic flats).

**Soil** Fine red, brown sand.

**Rock** Ironstone.

**Vegetation** Acacia bivenosa open shrubland over Acacia aneura var. aneura, Acacia victoriae, Senna artemisioides subsp. helmsii, Solanum lasiophyllum low open shrubland over Triodia pungens scattered hummock grasses over Cenchrus ciliaris, Enneapogon polyphyllus, Dactyloctenium radulans tussock grassland over Cleome viscosa, Boerhavia coccinea very open herbland.

**Veg** Poor. Area previously cleared and disturbed by weeds and cattle.

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aneura var. aneura	6%	0.8m	YB08.04	
	Acacia bivenosa	4%	1.4m	YB01.06	
	Acacia victoriae	2%	0.6m	YB04.06	
	Boerhavia coccinea	1%	0.2m	YB08.11	
	Boerhavia coccinea	+	0.2m	YB08.18	
	Boerhavia repleta	+	CR	YB08.20	
	Cenchrus ciliaris	25%	0.4m	YB01.14	
	Cleome viscosa	+	0.1m	YB04.22	
	Cleome viscosa	1%	0.1m	YB01.19	
	Dactyloctenium radulans	3%	0.1m	YB01.23	
	Enneapogon polyphyllus	5%	0.1m	YB08.10	
	Eremophila forrestii subsp. forrestii	1%	0.8m	YB08.07	
	Euphorbia australis (mid-green form)	+	<0.1m	YB03.18	Prostrate.
	Gomphrena kanisii	+	0.1m	YB07.28	
	Maireana planifolia	1%	0.2m	YB08.12	
	Maireana tomentosa	+	0.4m	YB08.06	
	Portulaca oleracea	+	0.1m	YB04.16	
	Senna artemisioides subsp. helmsii	1%	0.6m	YB08.08	
	Sida aff. fibulifera (FMG 125-20)	+	0.1m	YB04.26	
	Solanum lasiophyllum	1%	0.5m	YB02.32	
	Triodia pungens	1%	3.0m	YB08.19	

**Site** YB09  
**Described** RM **Date** 4/15/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 797107 **mE** 7430169 **mN**  
**Habitat** Sandplain (some lateritic flats).  
**Soil** Fine red, brown sand with lateritic gravel.  
**Rock** Ironstone.  
**Vegetation** Senna glutinosa subsp. luerssenii, Eremophila cuneifolia, Acacia ancistrocarpa, Acacia aneura var. pilbarana, Grevillea striata, Solanum lasiophyllum shrubland over Triodia longiceps closed hummock grassland over Cenchrus ciliaris, Enneapogon polyphyllus, Dactyloctenium radulans very open tussock grassland.  
**Veg** Good. Area disturbed by weeds and ripping adjacent to the road.  
**Fire** Moderate.  
**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia ancistrocarpa	1%	0.7m	YB06.01
	Acacia aneura var. pilbarana	1%	2.5m	YB09.15
	Acacia synchronicia	+	0.2m	YB01.08
	Aristida contorta	+	0.2m	YB01.17
	Cenchrus ciliaris	5%	0.4m	YB01.14
	Dactyloctenium radulans	2%	0.1m	YB01.23
	Enneapogon polyphyllus	2%	0.1m	YB08.10
	Eremophila cuneifolia	2%	0.3m	YB09.09
	Grevillea striata	1%	0.2m	YB09.14
	Maireana planifolia	+	0.6m	YB08.12
	Paraneurachne muelleri	+	0.2m	YB01.29
	Ptilotus exaltatus var. exaltatus	+	0.1m	YB09.06
	Salsola tragus subsp. tragus	+	0.2m	YB09.16
	Sclerolaena eriacantha	+	0.3m	YB09.11
	Senna glutinosa subsp. luerssenii	10%	1.2m	YB09.05
	Solanum lasiophyllum	1%	0.5m	YB02.32
	Tragus australianus	+	0.1m	YB09.17
	Triodia longiceps	80%	1.2m	YB09.04

**Site** YB10

**Described** RM **Date** 4/15/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 797087 **mE** 7431177 **mN**

**Habitat** Large drainage.

**Soil** Red loam.

**Rock** Quartz, ironstone.

**Vegetation** Eucalyptus victrix low woodland over Acacia citrinoviridis, Acacia aneura var. aneura, Hakea lorea subsp. lorea open shrubland over Corchorus crozophorifolius, Acacia sclerosperma subsp. sclerosperma, Acacia synchronicia low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Chloris pumilio, Eragrostis aff. eriopoda (WAS site 963), Eragrostis tenellula tussock grassland over Aerva javanica, Cleome viscosa very open herbland.

**Veg** Poor. Area disturbed by weeds, cattle and the presence of a metal mesh bank stabiliser.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aneura var. aneura	1%	2.2m	YB10.04	
	Acacia citrinoviridis	8%	1.2m	YB01.02	
	Acacia sclerosperma subsp. sclerosperma	1%	0.3m	YB01.22	
	Acacia synchronicia	1%	0.7m	YB01.08	
	Aerva javanica	6%	1.0m	YB10.07	
	Boerhavia coccinea	+	0.1m	YB08.18	
	Cenchrus ciliaris	40%	0.4m	YB01.14	
	Chloris pumilio	5%	0.2m	YB10.21	
	Cleome viscosa	1%	0.1m	YB04.22	
	Corchorus crozophorifolius	3%	0.8m	YB10.12	
	Eragrostis aff. eriopoda (WAS site 963)	2%	0.4m	YB04.27	
	Eragrostis tenellula	2%	0.2m	YB01.16	
	Eucalyptus victrix	15%	4.5m	YB10.01	
	Goodenia lamprosperma	+	0.2m	YB10.22	
	Gossypium australe (Burrup Peninsula form)	+	2.0m	YB10.11	
	Hakea lorea subsp. lorea	1%	2.5m	YB01.07	
	Indigofera monophylla (FMR35-01)	+	0.4m	YB10.14	
	Rhynchosia minima var. australis	1%	CR	YB01.12	Prostrate.
	Sida sp.	+	0.1m	YB10.23	
	Solanum lasiophyllum	+	0.6m	YB02.32	
	Stemodia grossa	+	0.1m	YB10.16	
	Tephrosia rosea var. glabrior	1%	0.5m	YB10.05	
	Triodia pungens	6%	1.2m	YB10.13	

**Site** YB11

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 **mE** 792805 **mN** 7420479

**Habitat** Floodplain.

**Soil** Rocky red, brown sand.

**Rock** Ironstone.

**Vegetation** Corymbia semiclara scattered low trees over Acacia pyrifolia, Acacia inaequilatera, Acacia sclerosperma subsp. sclerosperma high shrubland over Acacia citrinoviridis, Acacia marramamba, Senna artemisioides subsp. oligophylla x helmsii low shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Eragrostis aff. eriopoda (WAS site 963) closed tussock grassland over Gomphrena cunninghamii very open hermland.

**Veg** Very poor. Area affected by weeds, cattle grazing and road ripping.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia citrinoviridis	4%	0.8m	YB01.02	
	Acacia citrinoviridis	1%	2.0m	YB01.02	
	Acacia inaequilatera	2%	3.3m	YB01.21	
	Acacia marramamba	5%	0.8m	YB11.05	
	Acacia pyrifolia	5%	2.2m	YB07.13	
	Acacia sclerosperma subsp. sclerosperma	2%	3.0m	YB11.02	
	Acacia sclerosperma subsp. sclerosperma	10%	2.5m	YB01.22	
	Cenchrus ciliaris	90%	0.5m	YB01.14	
	Corymbia semiclara	1%	0.6m	YB11.11	
	Eragrostis aff. eriopoda (WAS site 963)	5%	0.4m	YB04.27	
	Euphorbia australis (mid-green form)	+	<0.1m	YB03.18	Prostrate.
	Euphorbia coghlanii	+	0.3m	YB11.21	
	Gomphrena cunninghamii	2%	0.2m	YB11.19	
	Ptilotus astrolasius var. astrolasius	+	0.2m	YB11.20	
	Rhynchosia minima var. australis	1%	CR	YB11.15	
	Sclerolaena cornishiana	+	0.1m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	5%	0.2m	YB06.12	
	Sida aff. fibulifera (oblong; MET 15 220)	+	0.1m	YB11.18	
	Sida sp.	+	0.2m	YB11.07	
	Solanum lasiophyllum	+	0.2m	YB02.32	
	Triodia pungens	2%	0.8m	YB11.16	

**Site** YB12

**Described** RM **Date** 4/16/2008 **Type** Q

**Season** **Uniformity**

**Location**

**MGA** 50 793270 **mE** 7421462 **mN**

**Habitat** Floodplain.

**Soil** Red, brown loamy sand.

**Rock** Ironstone.

**Vegetation** Corymbia candida low woodland over Acacia citrinoviridis, Acacia sclerosperma subsp. sclerosperma, Acacia ancistrocarpa, Acacia dictyophleba open scrub over Senna artemisioides subsp. oligophylla x helmsii, Sida aff. fibulifera (FMG 125-20) low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Bothriochloa bladhii, Aristida holathera var. latifolia closed tussock grassland.

**Veg** Poor. Area disturbed by cattle grazing, metal refuse, weeds and ripping of adjacent road.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	2%	3.5m	YB06.01	
	Acacia citrinoviridis	25%	5.0m	YB01.02	
	Acacia dictyophleba	15%	2.2m	YB05.14	
	Acacia sclerosperma subsp. sclerosperma	5%	3.0m	YB01.22	
	Aristida holathera var. latifolia	2%	0.3m	YB12.17	
	Bothriochloa bladhii	2%	0.8m	YB12.18	
	Cenchrus ciliaris	75%	0.6m	YB01.14	
	Corymbia candida	15%	7.5m	YB12.03	
	Crotalaria medicaginea	+	0.1m	YB12.15	
	Eragrostis aff. eriopoda (WAS site 963)	5%	0.3m	YB04.27	
	Hakea chordophylla	1%	2.5m	YB12.06	
	Paraneurachne muelleri	5%	0.3m	YB01.29	
	Sclerolaena cornishiana	1%	0.2m	YB11.09	
	Senna artemisioides subsp. helmsii	+	0.2m	YB12.14	
	Senna artemisioides subsp. oligophylla x helmsii	3%	0.1m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	1%	0.1m	YB04.26	
	Tribulus cistoides	+	0.1m	YB12.13	
	Triodia pungens	10%	0.8m	YB12.08	

**Site** YB13

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **793804 mE** **7422326 mN**

**Habitat** Floodplain grading to riparian.

**Soil** Rocky red, brown sandy loam.

**Rock** Ironstone.

**Vegetation** Eucalyptus victrix low scattered trees over Acacia sclerosperma subsp. sclerosperma, Acacia citrinoviridis open heath over Petalostylis cassioides, Gossypium australe (Burrup Peninsula form), Vachellia farnesiana low open shrubland over Cenchrus ciliaris, Themeda triandra closed tussock grassland.

**Veg** Poor. Area affected by weeds and grazing.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia citrinoviridis	2%	1.0m	YB01.02	
	Acacia pyrifolia	+	0.9m	YB07.13	
	Acacia sclerosperma subsp. sclerosperma	30%	2.0m	YB01.22	
	Cenchrus ciliaris	80%	0.3m	YB01.14	
	Eucalyptus victrix	1%	3.5m	YB13.06	
	Eucalyptus victrix	2%	0.6m	YB13.01	
	Gossypium australe (Burrup Peninsula form)	1%	0.3m	YB10.11	
	Gossypium robinsonii	+	1.1m	YB03.11	
	Petalostylis cassioides	5%	0.6m	YB06.02	
	Rhynchosia minima var. australis	+	CR	YB01.12	Prostrate.
	Salsola tragus subsp. tragus	+	0.2m	YB09.16	
	Sida aff. fibulifera (FMG 125-20)	+	0.3m	YB13.15	
	Sida cardiophylla	+	0.1m	YB13.14	
	Themeda triandra	2%	0.8m	YB03.13	
	Tribulus hirsutus	+	<0.1m	YB13.12	
	Vachellia farnesiana	1%	0.7m	YB13.07	



**Site** YB14  
**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 794306 **mE** 7423483 **mN**  
**Habitat** Sandplain.  
**Soil** Fine red sand with scattered rocks.  
**Rock** Ironstone.  
**Vegetation** Acacia sclerosperma subsp. sclerosperma open scrub over Scaevola parvifolia subsp. pilbarae, Stylobasium spathulatum, Sida aff. fibulifera (FMG 125-20), Sida cardiophylla, Hibiscus sturtii var. platyklamys, Solanum lasiophyllum, Sclerolaena cornishiana low shrubland over Triodia pungens hummock grassland over Cenchrus ciliaris, Eragrostis aff. eriopoda (WAS site 963) tussock grassland over Bonamia rosea very open herbland.  
**Veg** Good. Area disturbed by weeds.  
**Fire** Old.  
**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia sclerosperma subsp. sclerosperma	35%	3.0m	YB01.22	
	Bonamia rosea	2%	0.1m	YB06.04	
	Cenchrus ciliaris	30%	0.4m	YB01.14	
	Chrysocephalum pterochaetum	+	0.2m	YB14.14	
	Eragrostis aff. eriopoda (WAS site 963)	8%	0.7m	YB04.27	
	Hibiscus brachychlaenus	+	0.2m	YB14.09	
	Hibiscus sturtii var. platyklamys	1%	0.2m	YB14.07	
	Scaevola parvifolia subsp. pilbarae	4%	0.2m	YB06.10	
	Sclerolaena cornishiana	1%	0.3m	YB11.09	
	Sida aff. fibulifera (FMG 125-20)	2%	0.3m	YB04.26	
	Sida cardiophylla	1%	0.5m	YB14.12	
	Solanum lasiophyllum	1%	0.6m	YB02.32	
	Stylobasium spathulatum	3%	0.8m	YB14.13	
	Triodia pungens	50%	0.8m	YB14.06	

**Site** YB15

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 795061 **mE** 7424837 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand.

**Rock** Ironstone, some calcrete.

**Vegetation** Acacia sclerosperma subsp. sclerosperma, Acacia synchronicia open scrub over Acacia bivenosa, Stylobasium spathulatum, Acacia ligulata, Hakea lorea subsp. lorea shrubland over Senna artemisioides subsp. oligophylla x helmsii, Kennedia prorepens, Sclerolaena cornishiana, Sida aff. fibulifera (FMG 125-20) low open shrubland over Triodia pungens open hummock grassland over Cenchrus ciliaris closed tussock grassland over Malvastrum sp., Bonamia rosea very open herbland.

**Veg** Poor. Area affected by weeds and cattle.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia bivenosa	2%		1.8m	YB01.06	
	Acacia ligulata	1%		1.2m	YB15.06	
	Acacia sclerosperma subsp. sclerosperma	2%		2.5m	YB15.02	
	Acacia sclerosperma subsp. sclerosperma	40%		4.0m	YB01.22	
	Acacia synchronicia	2%		2.2m	YB01.08	
	Bonamia rosea	1%		0.3m	YB06.04	
	Cenchrus ciliaris	80%		0.4m	YB01.14	
	Hakea lorea subsp. lorea	1%		1.2m	YB01.07	
	Kennedia prorepens	2%		0.2m	YB15.10	
	Malvastrum sp.	2%		0.2m	YB15.16	
	Sclerolaena cornishiana	2%		0.5m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	2%		0.5m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	1%		0.1m	YB15.15	
	Stylobasium spathulatum	15%		1.4m	YB14.13	
	Trianthema pilosa	+		<0.1m	YB07.02	
	Triodia pungens	17%		0.8m	YB15.14	

**Site** YB16

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **795989 mE** **7427071 mN**

**Habitat** Sandplain.

**Soil** Red, brown sand with scattered rocks.

**Rock** Ironstone.

**Vegetation** Acacia synchronicia, Acacia sclerosperma subsp. sclerosperma, Acacia paraneura, Acacia ligulata, Acacia citrinoviridis open scrub over Senna artemisioides subsp. oligophylla x helmsii, Eremophila forrestii subsp. forrestii, Stylobasium spathulatum open shrubland over Senna artemisioides aff. subsp. oligophylla (thinly sericeous) low open shrubland over Triodia pungens closed hummock grassland over Cenchrus ciliaris, Dactyloctenium radulans, Enneapogon polyphyllus open tussock grassland over Cleome viscosa, Abutilon aff. lepidum (4), Gomphrena kanisii very open herbland.

**Veg** Good. Area disturbed by weeds, soil heaping and metal refuse.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Abutilon aff. lepidum (4)	1%	0.2m	YB16.20
	Acacia citrinoviridis	2%	3.5m	YB01.02
	Acacia ligulata	2%	2.3m	YB16.08
	Acacia paraneura	3%	5.0m	YB16.03
	Acacia sclerosperma subsp. sclerosperma	6%	2.5m	YB01.22
	Acacia synchronicia	35%	2.0m	YB16.01
	Cenchrus ciliaris	10%	0.6m	YB01.14
	Cleome viscosa	2%	0.2m	YB04.22
	Dactyloctenium radulans	2%	0.1m	YB01.23
	Enneapogon polyphyllus	2%	0.1m	YB08.10
	Eremophila forrestii subsp. forrestii	3%	1.0m	YB16.18
	Gomphrena kanisii	1%	0.1m	YB07.28
	Ipomoea muelleri	1%	CR	YB04.11
	Ptilotus obovatus var. obovatus	+	0.2m	YB16.19
	Sclerolaena cornishiana	+	0.1m	YB11.09
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	10%	0.8m	YB16.02
	Senna artemisioides subsp. oligophylla x helmsii	5%	1.2m	YB06.12
	Stylobasium spathulatum	1%	1.3m	YB14.13
	Tribulus macrocarpus	+	CR	YB16.15
	Triodia pungens	80%	1.2m	YB16.05

**Site** YB17

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 796945 **mE** 7429300 **mN**

**Habitat** Sandplain.

**Soil** Red, brown loamy sand.

**Rock** Ironstone.

**Vegetation** Acacia synchronicia, Acacia paraneura, Acacia wanyu, Acacia sclerosperma subsp. sclerosperma, Acacia paraneura open scrub over Sclerolaena cornishiana, Senna artemisioides subsp. helmsii, Solanum lasiophyllum low open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Dactyloctenium radulans tussock grassland over Portulaca oleracea very open herbland.

**Veg** Poor. Area affected by cattle grazing, metal refuse and ripping adjacent to the road.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia paraneura	10%	3.5m	YB17.03	
	Acacia paraneura	10%	3.5m	YB17.07	
	Acacia sclerosperma subsp. sclerosperma	10%	2.5m	YB01.22	
	Acacia synchronicia	20%	3.0m	YB16.01	
	Acacia wanyu	10%	2.2m	YB17.18	
	Amyema preissii	+	0.4m	YB17.19	OSH.
	Boerhavia coccinea	+	0.1m	YB08.18	
	Cenchrus ciliaris	15%	0.2m	YB01.14	
	Cleome viscosa	+	0.3m	YB04.22	
	Dactyloctenium radulans	20%	0.1m	YB01.23	
	Eragrostis tenellula	+	0.1m	YB01.16	
	Ipomoea muelleri	3%	CR	YB04.11	
	Maireana planifolia	+	0.2m	YB17.20	
	Portulaca oleracea	2%	0.1m	YB04.16	
	Rhynchosia minima var. australis	3%	CR	YB01.12	
	Sclerolaena cornishiana	3%	0.4m	YB11.09	
	Sclerolaena densiflora	+	0.1m	YB17.14	Form 'C'.
	Senna artemisioides subsp. helmsii	2%	0.6m	YB17.08	
	Senna notabilis	+	0.3m	YB01.33	
	Solanum lasiophyllum	1%	0.8m	YB02.32	
	Tragus australianus	+	0.1m	YB09.17	
	Triodia pungens	10%	0.8m	YB17.15	

OSH: Obligate stem hemiparasite.

<b>Site</b>	YB18		
<b>Described Season</b>	RM	<b>Date</b>	4/16/2008
		<b>Type</b>	Q
		<b>Uniformity</b>	25 x 100m
<b>Location</b>			
<b>MGA</b>	50	797180	mE
<b>Habitat</b>	Sandplain.		
<b>Soil</b>	Fine red, brown sand with scattered rocks.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Grevillea striata high open shrubland over Eremophila forrestii subsp. forrestii, Sclerolaena cornishiana, Senna artemisioides subsp. oligophylla x helmsii, Senna artemisioides subsp. helmsii, Solanum lasiophyllum, Rhagodia eremaea, Hakea lorea subsp. lorea, Maireana planifolia low shrubland over Triodia epactia, Triodia pungens very open hummock grassland over Aristida ingrata, Cenchrus ciliaris, Dactyloctenium radulans, Chrysopogon fallax, Themeda triandra, Aristida contorta tussock grassland over Trianthema pilosa scattered herbs.		
<b>Veg</b>	Poor. Area affected by cattle grazing, weeds and previous clearing.		
<b>Fire</b>	Old.		
<b>Notes</b>			

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Aristida contorta	1%	0.2m	YB01.17
	Aristida ingrata	30%	0.8m	YB01.18
	Cenchrus ciliaris	10%	0.3m	YB01.14
	Chrysopogon fallax	2%	0.8m	YB18.14
	Dactyloctenium radulans	2%	0.1m	YB01.23
	Eremophila forrestii subsp. forrestii	10%	0.8m	YB16.18
	Goodenia prostrata	+	<0.1m	YB18.13
	Grevillea striata	5%	2.5m	YB18.06
	Hakea lorea subsp. lorea	1%	0.2m	YB18.11
	Maireana planifolia	1%	0.3m	YB17.20
	Portulaca oleracea	+	<0.1m	YB04.16
	Ptilotus helipteroides var. helipteroides	+	0.1m	YB18.16
	Rhagodia eremaea	2%	0.9m	YB18.08
	Sclerolaena cornishiana	6%	0.3m	YB11.09
	Senna artemisioides subsp. helmsii	3%	0.8m	YB18.09
	Senna artemisioides subsp. oligophylla x helmsii	3%	0.4m	YB06.12
	Solanum lasiophyllum	2%	0.3m	YB02.32
	Themeda triandra	1%	1.0m	YB03.13
	Trianthema pilosa	1%	<0.1m	YB07.02
	Triodia epactia	5%	0.9m	YB18.20
	Triodia pungens	5%	0.8m	YB18.19

<b>Site</b>	YB19		
<b>Described Season</b>	RM	<b>Date</b>	4/16/2008 <b>Type</b> Q 25 x 100m
			<b>Uniformity</b>
<b>Location</b>			
<b>MGA</b>	50	797213 <b>mE</b>	7434069 <b>mN</b>
<b>Habitat</b>	Sandplain.		
<b>Soil</b>	Fine red, brown sand with scattered rocks.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Corymbia aspera low scattered trees over Acacia tetragonophylla, Acacia synchronicia, Hakea lorea subsp. lorea open scrub over Senna artemisioides aff. subsp. oligophylla (thinly sericeous), Ptilotus obovatus var. obovatus, Eremophila forrestii subsp. forrestii, Senna artemisioides subsp. helmsii, Tragus australianus, Maireana villosa, Sclerolaena cornishiana, Maireana planifolia, Solanum lasiophyllum low shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Dactyloctenium radulans, Eragrostis aff. eriopoda (WAS site 963) tussock grassland over Gomphrena kanisii, Goodenia prostrata, Boerhavia coccinea very open herbland.		
<b>Veg</b>	Poor. Area affected by weeds, metal refuse and ripping near the road.		
<b>Fire</b>	Old.		
<b>Notes</b>			

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia synchronicia	10%	3.0m	YB01.08	
	Acacia tetragonophylla	40%	2.2m	YB19.08	
	Aerva javanica	+	1.0m	YB10.07	8 individuals.
	Boerhavia coccinea	2%	0.1m	YB08.18	
	Cenchrus ciliaris	50%	0.6m	YB01.14	
	Cleome viscosa	1%	0.1m	YB04.22	
	Corymbia aspera	1%	6.0m	YB19.07	
	Dactyloctenium radulans	5%	0.1m	YB01.23	
	Enneapogon polyphyllus	1%	0.2m	YB19.25	
	Eragrostis aff. eriopoda (WAS site 963)	2%	0.2m	YB04.27	
	Eragrostis eriopoda	1%	0.2m	YB19.24	
	Eragrostis tenellula	1%	0.1m	YB01.16	
	Eremophila forrestii subsp. forrestii	3%	0.6m	YB16.18	
	Gomphrena kanisii	2%	0.2m	YB07.28	
	Goodenia prostrata	2%	0.1m	YB18.13	
	Grevillea striata	+	0.9m	YB19.23	
	Hakea lorea subsp. lorea	1%	4.5m	YB01.07	
	Maireana planifolia	2%	0.2m	YB17.20	
	Maireana villosa	2%	0.5m	YB19.03	
	Portulaca oleracea	1%	<0.1m	YB04.16	
	Ptilotus obovatus var. obovatus	4%	0.4m	YB19.06	
	Ptilotus obovatus var. obovatus	1%	0.2m	YB01.27	
	Rhynchosia minima var. australis	2%	CR	YB01.12	Prostrate.
	Sclerolaena cornishiana	2%	0.3m	YB11.09	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	8%	0.8m	YB16.02	
	Senna artemisioides subsp. helmsii	3%	0.8m	YB19.17	
	Solanum lasiophyllum	2%	0.6m	YB02.32	
	Tragus australianus	4%	0.1m	YB09.17	
	Triodia pungens	5%	0.8m	YB19.28	



**Site** YB20

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location**

**MGA** 50 **797250 mE** **7436157 mN**

**Habitat** Floodplain.

**Soil** Fine red, brown loam.

**Rock**

**Vegetation** Acacia aff. aneura (narrow fine veined; site 1259) low open forest over Acacia synchronicia high open shrubland over Senna artemisioides aff. subsp. oligophylla (thinly sericeous) shrubland over Sclerolaena cornishiana, Rhagodia eremaea, Senna artemisioides subsp. oligophylla x helmsii, Ptilotus astrolasius var. astrolasius low shrubland over Chloris pectinata, Dactyloctenium radulans, Chrysopogon fallax tussock grassland over Goodenia sp., Malvastrum americanum, Cleome viscosa, Goodenia prostrata, Gomphrena kanisii, Stenopetalum nutans open herbland.

**Veg** Good. Area disturbed by cattle grazing and metal refuse. Very few weeds present.

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon leucopetalum	2%	0.1m	YB20.09	
	Abutilon macrum	2%	0.1m	YB20.12	
	Acacia aff. aneura (narrow fine veined; site 1259)	40%	6.0m	YB20.01	
	Acacia aneura var. conifera	+	0.6m	YB20.32	
	Acacia synchronicia	2%	2.5m	YB01.08	
	Acacia tetragonophylla	1%	2.0m	YB19.08	
	Chenopodium melanocarpum	1%	0.1m	YB20.17	
	Chloris pectinata	30%	0.3m	YB20.05	
	Chrysopogon fallax	12%	0.9m	YB18.14	
	Cleome viscosa	2%	0.2m	YB04.22	
	Dactyloctenium radulans	5%	<0.1m	YB01.23	
	Eremophila lanceolata	1%	0.3m	YB20.23	
	Fimbristylis dichotoma	1%	0.1m	YB20.26	
	Gomphrena kanisii	2%	0.1m	YB07.28	
	Goodenia prostrata	2%	0.1m	YB18.13	
	Goodenia sp.	+	0.1m	YB20.20	
	Goodenia sp.	8%	0.1m	YB04.15	
	Iseilema eremaeum	+	0.1m	YB20.30	
	Maireana planifolia	1%	0.6m	YB17.20	
	Malvastrum americanum	2%	0.2m	YB20.13	
	Ptilotus astrolasius var. astrolasius	2%	0.4m	YB01.27	
	Ptilotus gomphrenoides var. gomphrenoides	1%	0.1m	YB20.16	
	Rhagodia eremaea	4%	0.2m	YB18.08	
	Rhynchosia minima var. australis	2%	CR	YB01.12	Prostrate.
	Salsola tragus	1%	0.1m	YB19.27	
	Sclerolaena cornishiana	4%	0.6m	YB11.09	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	12%	1.5m	YB16.02	
	Senna artemisioides subsp. helmsii	1%	0.7m	YB20.24	
	Senna artemisioides subsp. oligophylla x helmsii	18%	0.8m	YB06.12	
	Stenopetalum nutans	2%	0.1m	YB20.08	
	Tribulus astrocarpus	+	<0.1m	YB20.21	Prostrate.
	Trichodesma zeylanicum var. zeylanicum	1%	0.2m	YB04.17	

**Site** YB21

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location**

**MGA** 50 797129 **mE** 7438070 **mN**

**Habitat** Floodplain.

**Soil** Fine brown sandy loam with scattered rocks.

**Rock** Ironstone.

**Vegetation** Acacia aneura var. intermedia, Acacia aneura var. conifera, Acacia tetragonophylla, Rhagodia eremaea, Acacia synchronicia, Acacia ancistrocarpa closed shrub over Acacia aff. aneura (narrow fine veined; site 1259), Senna artemisioides subsp. oligophylla x helmsii shrubland over Senna artemisioides subsp. helmsii, Sida aff. fibulifera (FMG 125-20), Ptilotus gomphrenoides var. gomphrenoides low shrubland over Chrysopogon fallax, Enneapogon polyphyllus, Dactyloctenium radulans, Cenchrus ciliaris, Chloris pectinata tussock grassland over Goodenia sp., Gomphrena kanisii very open herbland.

**Veg** Good. Area affected by grazing and fire. Very few weeds.

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	10%	1.0m	YB21.03	
	Acacia ancistrocarpa	1%	2.2m	YB06.01	
	Acacia aneura var. conifera	20%	2.5m	YB21.02	
	Acacia aneura var. intermedia	50%	5.0m	YB21.01	
	Acacia synchronicia	2%	2.5m	YB01.08	
	Acacia tetragonophylla	5%	2.5m	YB19.08	
	Cenchrus ciliaris	2%	0.3m	YB01.14	
	Chloris pectinata	10%	0.4m	YB20.05	
	Chrysopogon fallax	50%	1.0m	YB18.14	
	Dactyloctenium radulans	2%	0.1m	YB01.23	
	Enchylaena tomentosa var. tomentosa	1%	0.6m	YB21.05	
	Enneapogon polyphyllus	5%	0.4m	YB21.10	
	Fimbristylis dichotoma	1%	0.1m	YB20.26	
	Gomphrena kanisii	1%	0.1m	YB07.28	
	Goodenia sp.	3%	0.2m	YB04.15	
	Maireana planifolia	1%	0.6m	YB17.20	
	Maireana villosa	1%	0.8m	YB19.03	
	Ptilotus gomphrenoides var. gomphrenoides	2%	0.2m	YB20.16	
	Rhagodia eremaea	4%	2.2m	YB18.08	
	Rhynchosia minima var. australis	2%	CR	YB01.12	Prostrate.
	Senna artemisioides subsp. helmsii	8%	0.8m	YB19.17	
	Senna artemisioides subsp. oligophylla x helmsii	2%	1.2m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	2%	0.1m	YB04.26	
	Solanum lasiophyllum	1%	0.7m	YB02.32	
	Tribulus cistoides	1%	<0.1m	YB12.13	Prostrate.

**Site** YB22

**Described** RM **Date** 4/16/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 **796505 mE** **7440001 mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand.

**Rock**

**Vegetation** Acacia synchronicia, Acacia aneura var. aneura high shrubland over Senna artemisioides subsp. helmsii, Acacia aff. aneura (narrow fine veined; site 1259) shrubland over Senna artemisioides subsp. oligophylla x helmsii, Eremophila lanceolata, Acacia tetragonophylla, Ptilotus astrolasius var. astrolasius low shrubland over Chrysopogon fallax, Aristida holathera var. latifolia, Tragus australianus, Eragrostis xerophila tussock grassland over Gomphrena kanisii, Goodenia prostrata very open herbland.

**Veg** Very good.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon macrum	+	0.3m	YB22.20	
	Acacia aff. aneura (narrow fine veined; site 1259)	3%	1.3m	YB22.03	
	Acacia aneura var. aneura	10%	4.5m	YB22.14	
	Acacia synchronicia	20%	2.5m	YB22.04	
	Acacia tetragonophylla	2%	0.9m	YB19.08	
	Aristida holathera var. latifolia	20%	0.2m	YB04.28	
	Chrysopogon fallax	20%	1.2m	YB18.14	
	Cullen leucochaites	+	0.2m	YB22.25	
	Eragrostis xerophila	20%	0.4m	YB22.12	
	Eremophila lanceolata	12%	0.3m	YB20.23	
	Gomphrena kanisii	4%	0.1m	YB07.28	
	Goodenia nuda	+	0.2m	YB22.16	
	Goodenia prostrata	1%	<0.1m	YB18.13	
	Hibiscus sturtii var. grandiflorus	1%	0.2m	YB22.11	
	Indigofera colutea	+	0.2m	YB22.22	
	Ipomoea muelleri	+	CR	YB04.11	Prostrate.
	Ptilotus astrolasius var. astrolasius	2%	0.3m	YB01.27	
	Ptilotus gomphrenoides var. gomphrenoides	1%	0.1m	YB20.16	
	Rhagodia eremaea	5%	0.9m	YB18.08	
	Rhynchosia minima var. australis	2%	CR	YB22.23	Prostrate.
	Senna artemisioides subsp. helmsii	15%	1.0m	YB22.05	
	Senna artemisioides subsp. oligophylla x helmsii	10%	0.8m	YB06.12	
	Solanum lasiophyllum	1%	0.2m	YB02.32	
	Tragus australianus	5%	0.1m	YB09.17	
	Trichodesma zeylanicum var. zeylanicum	1%	0.1m	YB04.17	

**Site** YB23

**Described** RM **Date** 4/17/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 797156 **mE** 7432233 **mN**

**Habitat** Sandplain.

**Soil** Fine red sand with scattered rocks.

**Rock** Ironstone.

**Vegetation** Acacia synchronicia high open shrubland over Senna artemisioides subsp. oligophylla x helmsii, Hakea lorea subsp. lorea shrubland over Senna artemisioides aff. subsp. oligophylla (thinly sericeous), Maireana villosa, Solanum lasiophyllum, Sida aff. fibulifera (FMG 125-20) low open shrubland over Cenchrus ciliaris, Tragus australianus, Aristida contorta, Chrysopogon fallax, Dactyloctenium radulans, Eragrostis xerophila closed tussock grassland over Gomphrena kanisii, Goodenia prostrata very open herbland.

**Veg** Poor. Area disturbed by refuse, weeds and previous clearing for minor tracks.

**Fire** Very Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia synchronicia	10%	2.2m	YB01.08	
	Aristida contorta	4%	0.1m	YB01.17	
	Boerhavia repleta	+	0.3m	YB23.15	
	Cenchrus ciliaris	50%	0.4m	YB01.14	
	Chrysopogon fallax	30%	1.2m	YB18.14	
	Dactyloctenium radulans	3%	0.1m	YB01.23	
	Eragrostis xerophila	10%	0.3m	YB22.12	
	Gomphrena kanisii	3%	0.1m	YB07.28	
	Goodenia prostrata	2%	<0.1m	YB18.13	
	Hakea lorea subsp. lorea	2%	1.8m	YB01.07	
	Hibiscus sturtii var. aff. grandiflorus	+	0.2m	YB23.18	
	Maireana villosa	3%	0.1m	YB19.03	
	Ptilotus exaltatus var. exaltatus	+	0.1m	YB23.17	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	4%	0.3m	YB16.02	
	Senna artemisioides subsp. oligophylla x helmsii	10%	1.1m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	1%	0.1m	YB04.26	
	Solanum lasiophyllum	1%	0.7m	YB02.32	
	Streptoglossa bubakii	+	0.1m	YB23.16	
	Tragus australianus	6%	0.1m	YB09.17	
	Trianthema triquetra var. triquetra	+	<0.1m	YB23.20	

<b>Site</b>	YB24		
<b>Described Season</b>	RM	<b>Date</b>	4/17/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	797179 <b>mE</b>	7435290 <b>mN</b>
<b>Habitat</b>	Small drainage.		
<b>Soil</b>	Red, brown loam with scattered rocks.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Acacia synchronicia, Hakea lorea subsp. lorea open scrub over Senna artemisioides aff. subsp. oligophylla (thinly sericeous), Acacia aff. aneura (narrow fine veined; site 1259) shrubland over Senna artemisioides subsp. oligophylla x helmsii, Solanum lasiophyllum low open shrubland over Cenchrus ciliaris, Tragus australianus, Chrysopogon fallax, Dactyloctenium radulans closed tussock grassland over Ptilotus gomphrenoides var. gomphrenoides, Ptilotus exaltatus var. exaltatus, Ipomoea muelleri, Boerhavia coccinea, Portulaca oleracea very open herbland.		
<b>Veg</b>	Poor. Area affected by weeds, cattle grazing, metal refuse, previous clearing and soil heaping.		
<b>Fire</b>	Very old.		
<b>Notes</b>			

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	3%	1.2m	YB24.28	
	Acacia synchronicia	40%	3.2m	YB01.08	
	Boerhavia coccinea	2%	0.3m	YB08.18	
	Cenchrus ciliaris	40%	0.8m	YB01.14	
	Chloris pectinata	+	0.2m	YB20.05	
	Chrysopogon fallax	30%	0.8m	YB18.14	
	Dactyloctenium radulans	2%	0.1m	YB01.23	
	Enneapogon intermedius	2%	0.7m	YB24.22	
	Eragrostis tenellula	1%	0.1m	YB01.16	
	Eulalia aurea	1%	1.2m	YB24.09	
	Gomphrena kanisii	+	0.1m	YB07.28	
	Goodenia microptera	+	0.1m	YB24.23	
	Goodenia prostrata	+	<0.1m	YB18.13	
	Hakea lorea subsp. lorea	2%	5.0m	YB02.31	
	Ipomoea muelleri	4%	CL	YB04.11	
	Maireana villosa	+	0.1m	YB19.03	
	Phyllanthus maderaspatensis	1%	0.2m	YB01.10	
	Pluchea dunlopia	2%	0.3m	YB24.20	
	Portulaca oleracea	2%	<0.1m	YB04.16	
	Ptilotus exaltatus var. exaltatus	2%	0.1m	YB09.06	
	Ptilotus gomphrenoides var. gomphrenoides	4%	0.1m	YB20.16	
	Rhagodia eremaea	1%	0.9m	YB18.08	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	8%	1.0m	YB16.02	
	Senna artemisioides subsp. oligophylla x helmsii	10%	1.0m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	2%	0.1m	YB04.26	
	Solanum lasiophyllum	2%	0.4m	YB02.32	
	Streptoglossa bubakii	2%	0.1m	YB24.19	
	Tragus australianus	4%	0.1m	YB09.17	
	Trianthema triquetra var. triquetra	+	0.1m	YB23.20	
	Tribulus cistoides	1%	<0.1m	YB24.18	Prostrate.

**Site** YB25  
**Described** RM **Date** 4/17/2008 **Type** Q **25 x 100m**  
**Season** **Uniformity**  
**Location**  
**MGA** 50 797204 **mE** 7437217 **mN**  
**Habitat** Sandplain.  
**Soil** Dark red, brown loamy sand with scattered rocks.  
**Rock** Ironstone.  
**Vegetation** Acacia synchronicia, Acacia aneura var. intermedia, Acacia sclerosperma subsp. sclerosperma, Acacia tetragonophylla open scrub over Senna artemisioides subsp. oligophylla x helmsii shrubland over Tephrosia rosea var. glabrior, Sida aff. fibulifera (FMG 125-20) low shrubland over Chrysopogon fallax, Aristida contorta, Cenchrus ciliaris, Dactyloctenium radulans closed tussock grassland over Goodenia prostrata, Ptilotus gomphrenoides var. gomphrenoides, Ptilotus helipteroides var. helipteroides, Gomphrena kanisii, Ipomoea muelleri very open herbland.  
**Veg** Poor. Extensive cattle and soil disturbance. Weeds present.  
**Fire** Old.  
**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon otocarpum	+	0.1m	YB25.36	
	Acacia aneura var. intermedia	5%	5.0m	YB25.18	
	Acacia citrinoviridis	8%	2.2m	YB01.02	
	Acacia sclerosperma subsp. sclerosperma	5%	2.5m	YB25.11	
	Acacia synchronicia	30%	2.2m	YB01.08	
	Acacia tetragonophylla	3%	2.0m	YB19.08	
	Aristida contorta	30%	0.2m	YB01.17	
	Cenchrus ciliaris	20%	0.8m	YB01.14	
	Chloris pectinata	2%	0.1m	YB20.05	
	Chrysopogon fallax	30%	1.0m	YB18.14	
	Chrysopogon fallax	1%	1.2m	YB25.15	
	Cleome viscosa	+	0.1m	YB04.22	
	Cullen lachnostachys	1%	2.0m	YB25.43	
	Dactyloctenium radulans	3%	0.1m	YB01.23	
	Diplachne fusca subsp. fusca	+	0.3m	YB25.45	
	Enneapogon polyphyllus	2%	0.1m	YB19.25	
	Eragrostis aff. eriopoda (WAS site 963)	1%	0.4m	YB04.27	
	Eragrostis leptocarpa	1%	0.2m	YB25.16	
	Eragrostis tenellula	+	0.1m	YB01.16	
	Eremophila lanceolata	8%	0.2m	YB20.23	
	Euphorbia australis (mid-green form)	+	<0.1m	YB03.18	Prostrate.
	Gomphrena kanisii	1%	0.2m	YB25.32	
	Gomphrena kanisii	2%	0.1m	YB07.28	
	Goodenia nuda	+	0.3m	YB25.24	
	Goodenia nuda	+	0.2m	YB25.31	
	Goodenia prostrata	2%	<0.1m	YB18.13	
	Goodenia sp.	2%	0.2m	YB04.15	
	Heliotropium paniculatum	+	0.1m	YB25.14	
	Ipomoea muelleri	2%	CR	YB04.11	
	Maireana villosa	1%	0.4m	YB25.44	
	Maireana villosa	1%	0.2m	YB19.03	
	Portulaca oleracea	+	0.1m	YB04.16	



<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>	1%	0.1m	YB09.06
<i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i>	3%	0.1m	YB20.16
<i>Ptilotus helipteroides</i> var. <i>helipteroides</i>	2%	0.2m	YB25.20
<i>Ptilotus macrocephalus</i>	+	0.1m	YB25.28
<i>Rhynchosia minima</i> var. <i>australis</i>	2%	0.1m	YB01.12
<i>Sclerolaena cornishiana</i>	1%	0.1m	YB11.09
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	15%	1.2m	YB06.12
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	10%	0.9m	YB25.02
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	2%	0.1m	YB04.26
<i>Sida platycalyx</i>	1%	0.2m	YB25.23
<i>Solanum lasiophyllum</i>	+	0.3m	YB02.32
<i>Tephrosia rosea</i> var. <i>glabrior</i>	5%	0.9m	YB25.03
<i>Tragus australianus</i>	2%	0.1m	YB09.17

**Site** YB26

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **796757 mE** **7439123 mN**

**Habitat** Sandplain.

**Soil** Red, brown sandy loam with scattered rocks.

**Rock** Ironstone.

**Vegetation** Senna artemisioides subsp. oligophylla x helmsii, Ptilotus astrolasius var. astrolasius, Acacia pruinocarpa, Sida aff. fibulifera (FMG 125-20), Cullen lachnostachys, Senna artemisioides subsp. helmsii, Pterocaulon sphaeranthoides low shrubland over Cenchrus ciliaris, Chrysopogon fallax, Eragrostis leptocarpa, Eragrostis cumingii, Dactyloctenium radulans closed tussock grassland over Cleome viscosa, Streptoglossa bubakii, Goodenia sp. open herbland.

**Veg** Very poor. Area disturbed by fire, cattle grazing and weeds.

**Fire** Young.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon otocarpum	+	0.3m	YB26.36	
	Acacia aneura var. conifera	1%	0.6m	YB26.35	
	Acacia pruinocarpa	4%	0.8m	YB26.20	
	Acacia pyrifolia	1%	1.5m	YB07.13	
	Cenchrus ciliaris	45%	0.3m	YB01.14	
	Chrysopogon fallax	35%	1.5m	YB18.14	
	Cleome viscosa	8%	0.4m	YB01.19	
	Cleome viscosa	+	0.2m	YB04.22	
	Cullen lachnostachys	3%	0.5m	YB25.43	
	Dactyloctenium radulans	2%	<0.1m	YB01.23	
	Eragrostis cumingii	3%	0.1m	YB26.18	
	Eragrostis leptocarpa	10%	0.3m	YB25.16	
	Eragrostis tenellula	1%	<0.1m	YB01.16	
	Eriachne aristidea	1%	0.3m	YB26.04	
	Gomphrena kanisii	+	0.1m	YB25.32	
	Gomphrena kanisii	+	0.1m	YB07.28	
	Goodenia nuda	1%	0.3m	YB25.31	
	Goodenia sp.	2%	0.3m	YB04.15	
	Heliotropium paniculatum	1%	0.1m	YB25.14	
	Indigofera linnaei	+	CR	YB26.25	
	Ipomoea muelleri	1%	CR	YB04.11	
	Iseilema eremaum	1%	0.2m	YB26.38	
	Kennedia prorepens	1%	0.1m	YB15.10	
	Neptunia dimorphantha	+	<0.1m	YB26.37	Prostrate.
	Phyllanthus maderaspatensis	1%	0.2m	YB01.10	
	Portulaca oleracea	1%	<0.1m	YB04.16	
	Pterocaulon sphaeranthoides	2%	0.3m	YB26.26	
	Ptilotus astrolasius var. astrolasius	8%	0.8m	YB01.27	
	Ptilotus gomphrenoides var. gomphrenoides	+	<0.1m	YB20.16	
	Senna artemisioides subsp. helmsii	3%	0.4m	YB26.33	
	Senna artemisioides subsp. oligophylla	+	0.6m	YB26.34	
	Senna artemisioides subsp. oligophylla x helmsii	10%	0.3m	YB06.12	
	Senna notabilis	1%	0.5m	YB01.33	

<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	4%	0.1m	YB04.26	
<i>Solanum lasiophyllum</i>	+	0.2m	YB02.32	
<i>Streptoglossa bubakii</i>	3%	0.3m	YB26.24	
<i>Tribulus cistoides</i>	1%	<0.1m	YB24.18	Prostrate.
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+	<0.1m	YB04.17	

**Site** YB27

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **795982 mE** **7441521 mN**

**Habitat** Sandplain.

**Soil** Red, brown sandy loam.

**Rock** Ironstone.

**Vegetation** Acacia pruinocarpa shrubland over Senna artemisioides subsp. oligophylla x helmsii, Senna artemisioides subsp. oligophylla (thinly sericeous), Eremophila lanceolata, Hibiscus sturtii var. aff. grandiflorus, Sida aff. fibulifera (FMG 125-20), Acacia aneura var. aneura, Acacia victoriae, Maireana villosa low shrubland over Chrysopogon fallax, Cenchrus ciliaris, Aristida contorta, Iseilema eremaeum, Dactyloctenium radulans tussock grassland over Boerhavia coccinea, Goodenia nuda very open herbland.

**Veg** Very poor. Area disturbed by weeds, cattle grazing and fire.

**Fire** Young.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (1) (MET 15 352)	+	0.2m	YB27.34	
	Acacia aneura var. aneura	2%	0.8m	YB01.05	
	Acacia pruinocarpa	25%	2.0m	YB26.20	
	Acacia sericophylla	1%	4.5m	YB27.21	
	Acacia synchronicia	1%	2.2m	YB01.08	
	Acacia victoriae	2%	0.3m	YB04.05	
	Aristida contorta	10%	0.4m	YB01.17	
	Boerhavia coccinea	3%	0.2m	YB08.18	
	Cenchrus ciliaris	15%	0.5m	YB01.14	
	Chrysopogon fallax	45%	1.0m	YB18.14	
	Cleome viscosa	+	0.1m	YB04.22	
	Dactyloctenium radulans	2%	<0.1m	YB01.23	
	Eragrostis tenellula	1%	<0.1m	YB01.16	
	Eremophila lanceolata	5%	0.3m	YB20.23	
	Euphorbia australis (mid-green form)	1%	<0.1m	YB03.18	Prostrate.
	Gomphrena kanisii	+	0.1m	YB07.28	
	Goodenia nuda	2%	0.3m	YB25.31	
	Heliotropium paniculatum	2%	0.4m	YB01.28	
	Heliotropium paniculatum	+	0.1m	YB27.36	
	Hibiscus sturtii var. aff. grandiflorus	2%	0.3m	YB27.17	
	Ipomoea muelleri	1%	CR	YB04.11	
	Iseilema eremaeum	2%	0.2m	YB27.37	
	Maireana villosa	2%	0.4m	YB19.03	
	Portulaca oleracea	1%	<0.1m	YB04.16	
	Pterocaulon sphaeranthoides	1%	0.5m	YB26.26	
	Ptilotus macrocephalus	+	0.1m	YB27.35	
	Ptilotus obovatus var. obovatus	1%	0.7m	YB27.26	
	Rhynchosia minima var. australis	+	0.1m	YB01.12	
	Salsola tragus subsp. tragus	+	0.1m	YB09.16	
	Sclerolaena cornishiana	1%	0.3m	YB11.09	
	Senna artemisioides subsp. oligophylla (thinly sericeous)	5%	0.7m	YB27.25	

<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	10%	0.6m	YB06.12
<i>Senna notabilis</i>	+	0.3m	YB01.33
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	2%	0.1m	YB04.26
<i>Solanum lasiophyllum</i>	1%	0.8m	YB02.32
<i>Tragus australianus</i>	1%	0.1m	YB09.17
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	1%	0.1m	YB04.17

**Site** YB28

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 795236 **mE** 7443822 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand.

**Rock** Ironstone.

**Vegetation** Corymbia aspera scattered low trees over Acacia ancistrocarpa, Acacia aff. aneura (narrow fine veined; site 1259) high shrubland over Senna artemisioides subsp. oligophylla x helmsii, Senna artemisioides subsp. helmsii open heath over Pluchea dunlopii, Acacia synchronicia, Senna artemisioides aff. subsp. oligophylla (thinly sericeous), Eremophila lanceolata low shrubland over Ipomoea muelleri scattered herbs.

**Veg** Poor. All of the grasses dead, possibly due to lack of water.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	2%	2.6m	YB28.05	
	Acacia ancistrocarpa	20%	2.5m	YB06.01	
	Acacia synchronicia	5%	0.8m	YB01.08	
	Acacia tetragonophylla	1%	0.5m	YB19.08	
	Corchorus tectus	+	0.2m	YB28.12	
	Corymbia aspera	1%	6.0m	YB28.09	
	Eremophila lanceolata	2%	0.1m	YB20.23	
	Ipomoea muelleri	1%	CR	YB04.11	
	Mukia maderaspatana	+	CR	YB07.23	
	Pluchea dunlopii	8%	0.8m	YB28.04	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YB28.16	
	Salsola tragus subsp. tragus	+	0.2m	YB09.16	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	3%	0.8m	YB16.02	
	Senna artemisioides subsp. helmsii	5%	1.0m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	60%	1.4m	YB06.12	
	Trichodesma zeylanicum var. zeylanicum	1%	0.5m	YB04.17	



**Site** YB29

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **793932 mE** **7445544 mN**

**Habitat** Sandplain.

**Soil** Red, brown sandy loam.

**Rock** Ironstone.

**Vegetation** Acacia pruinocarpa, Acacia paraneura, Acacia sclerosperma subsp. sclerosperma high shrubland over Senna artemisioides subsp. helmsii open shrubland over Senna artemisioides subsp. oligophylla x helmsii, Streptoglossa macrocephala, Maireana villosa, Acacia aneura var. aneura, Pluchea dunlopilii low shrubland over Chrysopogon fallax, Cymbopogon obtectus, Eulalia aurea, Aristida contorta, Eragrostis xerophila open tussock grassland.

**Veg** Poor. Most grasses are dead, possibly due to lack of water and previous soil disturbance.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aneura var. aneura	2%	0.8m	YB01.05	
	Acacia paraneura	7%	3.0m	YB29.10	
	Acacia pruinocarpa	15%	3.0m	YB26.20	
	Acacia sclerosperma subsp. sclerosperma	1%	5.0m	YB01.22	
	Aristida contorta	2%	0.2m	YB01.17	
	Aristida ingrata	+	0.8m	YB29.23	
	Chrysopogon fallax	5%	0.9m	YB18.14	
	Cymbopogon obtectus	4%	0.7m	YB01.11	
	Eragrostis xerophila	15%	0.6m	YB22.12	
	Eulalia aurea	3%	1.0m	YB24.09	
	Goodenia nuda	+	0.4m	YB25.31	
	Grevillea wickhamii subsp. hispidula	+	0.1m	YB29.22	
	Heliotropium paniculatum	+	0.2m	YB01.28	
	Maireana villosa	2%	0.4m	YB29.07	
	Maireana villosa	2%	0.5m	YB19.03	
	Mukia maderaspatana	+	CR	YB07.23	
	Pluchea dunlopilii	2%	0.8m	YB28.04	
	Senna artemisioides subsp. helmsii	10%	1.1m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	10%	0.8m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	+	0.4m	YB15.15	
	Solanum lasiophyllum	+	0.5m	YB02.32	
	Streptoglossa macrocephala	4%	0.8m	YB29.04	
	Trichodesma zeylanicum var. zeylanicum	1%	0.6m	YB04.17	

**Site** YB30

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **792770 mE** **7446921 mN**

**Habitat** Small drainage.

**Soil** Red, brown sandy loam.

**Rock** Ironstone.

**Vegetation** Corymbia semiclara low woodland over Acacia pruinocarpa, Acacia ancistrocarpa, Eremophila longifolia, Acacia bivenosa open scrub over Rhagodia eremaea, Senna artemisioides subsp. oligophylla x helmsii, Acacia aneura var. aneura, Hakea lorea subsp. lorea open heath over Acacia tetragonophylla, Ptilotus astrolasius var. astrolasius, Sida aff. fibulifera (FMG 125-20) low open shrubland over Cenchrus ciliaris open tussock grassland over Boerhavia coccinea scattered herbs.

**Veg** Good. Area disturbed by weeds. Majority of the grasses are dead, possibly due to lack of

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia ancistrocarpa	13%	3.5m	YB06.01
	Acacia aneura var. aneura	8%	1.8m	YB01.05
	Acacia bivenosa	2%	2.5m	YB01.06
	Acacia pruinocarpa	15%	3.5m	YB26.20
	Acacia tetragonophylla	8%	0.6m	YB19.08
	Boerhavia coccinea	1%	0.2m	YB08.18
	Cenchrus ciliaris	30%	0.5m	YB01.14
	Corchorus sp.	1%	0.4m	YB30.20
	Corchorus tectus	+	0.2m	YB30.21
	Corymbia semiclara	15%	8.0m	YB30.06
	Eremophila forrestii subsp. forrestii	+	0.4m	YB30.15
	Eremophila lanceolata	+	0.4m	YB20.23
	Eremophila longifolia	5%	4.0m	YB30.08
	Glycine canescens	+	CR	YB30.19
	Hakea lorea subsp. lorea	2%	2.0m	YB01.07
	Ptilotus astrolasius var. astrolasius	3%	0.7m	YB01.27
	Rhagodia eremaea	18%	1.3m	YB18.08
	Senna artemisioides subsp. oligophylla x helmsii	15%	2.0m	YB06.12
	Sida aff. fibulifera (FMG 125-20)	+	0.2m	YB15.15
	Sida aff. fibulifera (FMG 125-20)	1%	0.2m	YB04.26
	Solanum lasiophyllum	+	0.7m	YB02.32

**Site** YB31

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 791088 **mE** 7448918 **mN**

**Habitat** Sandplain.

**Soil** Red, brown sand.

**Rock** Ironstone.

**Vegetation** *Corymbia hamersleyana*, *Corymbia deserticola* subsp. *deserticola* low open woodland over *Acacia pruinocarpa*, *Grevillea wickhamii* subsp. *hispidula* high open shrubland over *Acacia tetragonophylla*, *Hakea lorea* subsp. *lorea* open shrubland over *Maireana villosa*, *Sclerolaena cornishiana*, *Acacia aneura* var. *aneura*, *Senna artemisioides* subsp. *oligophylla* x *helmsii*, *Senna artemisioides* subsp. *helmsii*, *Rhagodia eremaea* low open heath over *Chrysopogon fallax*, *Dactyloctenium radulans*, *Eulalia aurea* tussock grassland over *Cleome viscosa* very open herbland.

**Veg** Poor. Large percentage of the grasses are dead.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	<i>Acacia aneura</i> var. <i>aneura</i>	8%	0.8m	YB31.12
	<i>Acacia pruinocarpa</i>	8%	3.0m	YB26.20
	<i>Acacia tetragonophylla</i>	8%	1.1m	YB19.08
	<i>Bonamia rosea</i>	+	0.5m	YB31.28
	<i>Chrysopogon fallax</i>	35%	1.2m	YB18.14
	<i>Cleome viscosa</i>	2%	0.4m	YB01.19
	<i>Corchorus tectus</i>	+	1.0m	YB31.19
	<i>Corymbia deserticola</i> subsp. <i>deserticola</i>	1%	5.5m	YB31.23
	<i>Corymbia hamersleyana</i>	5%	3.0m	YB31.10
	<i>Cymbopogon obtectus</i>	2%	0.8m	YB01.11
	<i>Dactyloctenium radulans</i>	2%	0.1m	YB01.23
	<i>Duperreya commixta</i>	1%	CR	YB01.03
	<i>Enneapogon polyphyllus</i>	+	<0.1m	YB31.32
	<i>Eremophila longifolia</i>	1%	4.0m	YB30.08
	<i>Eriachne aristidea</i>	1%	0.2m	YB26.04
	<i>Eulalia aurea</i>	2%	0.9m	YB24.09
	<i>Grevillea wickhamii</i> subsp. <i>hispidula</i>	1%	2.5m	YB31.24
	<i>Hakea lorea</i> subsp. <i>lorea</i>	2%	1.5m	YB02.31
	<i>Hibiscus sturtii</i> var. <i>aff. truncatus</i> (site 1 016)	+	0.4m	YB31.20
	<i>Maireana villosa</i>	16%	0.2m	YB19.03
	<i>Psyrax latifolia</i>	+	0.3m	YB31.26
	<i>Pterocaulon sphaeranthoides</i>	+	0.1m	YB26.26
	<i>Rhagodia eremaea</i>	2%	0.8m	YB18.08
	<i>Sclerolaena cornishiana</i>	8%	0.4m	YB11.09
	<i>Senna artemisioides</i> subsp. <i>helmsii</i>	3%	0.5m	YB28.07
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	4%	0.5m	YB06.12
	<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>	1%	1.2m	YB31.14
	<i>Senna notabilis</i>	+	0.1m	YB01.33
	<i>Solanum lasiophyllum</i>	+	0.4m	YB02.32
	<i>Tephrosia aff. supina</i> (MET 12,357)	1%	0.2m	YB31.13
	<i>Waltheria indica</i>	+	0.3m	YB31.27

**Site** YB32

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 789602 **mE** 7450685 **mN**

**Habitat** Sandplain.

**Soil** Red, brown sandy loam.

**Rock** Ironstone.

**Vegetation** Acacia aneura var. intermedia low open woodland over Acacia pruinocarpa high open shrubland over Senna artemisioides subsp. oligophylla x helmsii, Acacia ancistrocarpa, Acacia tetragonophylla, Rhagodia eremaea, Hakea lorea subsp. lorea open heath over Sclerolaena cornishiana, Senna notabilis low shrubland over Cenchrus ciliaris, Chrysopogon fallax, Dactyloctenium radulans very open tussock grassland over Boerhavia coccinea, Gomphrena kanisii very open herbland.

**Veg** Good. High percentage of dead grasses.

**Fire** Old.

**Note**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia ancistrocarpa	20%	1.8m	YB06.01
	Acacia aneura var. intermedia	2%	2.5m	YB32.14
	Acacia aneura var. intermedia	4%	5.5m	YB32.10
	Acacia citrinoviridis	1%	1.0m	YB01.02
	Acacia pruinocarpa	5%	2.2m	YB26.20
	Acacia tetragonophylla	3%	1.3m	YB19.08
	Boerhavia coccinea	1%	0.1m	YB08.18
	Cenchrus ciliaris	5%	0.3m	YB01.14
	Chrysopogon fallax	2%	0.6m	YB18.14
	Cleome viscosa	+	0.1m	YB04.22
	Dactyloctenium radulans	1%	0.1m	YB01.23
	Gomphrena kanisii	1%	0.2m	YB07.28
	Hakea lorea subsp. lorea	2%	1.0m	YB01.07
	Indigofera colutea	4%	<0.1m	YB32.13
	Perotis rara	1%	0.1m	YB04.23
	Rhagodia eremaea	2%	1.0m	YB18.08
	Rhynchosia minima var. australis	2%	0.1m	YB01.12
	Sclerolaena cornishiana	20%	0.2m	YB11.09
	Senna artemisioides subsp. oligophylla x helmsii	25%	1.1m	YB06.12
	Senna notabilis	2%	0.1m	YB01.33
	Sida aff. echinocarpa (MET 15,350)	+	0.1m	YB32.25
	Sida aff. fibulifera (FMG 125-20)	+	CR	YB32.22
	Sida platycalyx	1%	0.4m	YB32.08
	Tephrosia aff. supina (MET 12,357)	+	0.1m	YB31.13
	Tragus australianus	1%	0.1m	YB09.17
	Tribulus macrocarpus	+	<0.1m	YB32.26

**Site** YB33

**Described** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 788078 **mE** 7452494 **mN**

**Habitat** Sandplain.

**Soil** Red, brown sand loam.

**Rock** Ironstone.

**Vegetation** Acacia pruinocarpa, Acacia ancistrocarpa, Acacia citrinoviridis, Acacia pachyacra, Rhagodia eremaea, Acacia paraneura, Acacia adsurgens open scrub over Acacia synchronicia open shrubland over Senna artemisioides subsp. oligophylla x helmsii, Hakea lorea subsp. lorea, Maireana villosa, Sclerolaena cornishiana low open heath over Triodia pungens very open hummock grassland over Chrysopogon fallax, Eragrostis aff. eriopoda (WAS site 963), Cenchrus ciliaris, Iseilema eremaeum tussock grassland.

**Veg** Good. Area disturbed by rubbish and some soil heaping. Many dead grasses.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia adsurgens	2%	3.0m	YB33.10	
	Acacia ancistrocarpa	10%	3.0m	YB06.01	
	Acacia citrinoviridis	10%	3.0m	YB01.02	
	Acacia pachyacra	5%	3.5m	YB33.09	
	Acacia paraneura	3%	2.5m	YB33.16	
	Acacia pruinocarpa	10%	4.0m	YB26.20	
	Acacia synchronicia	10%	1.8m	YB01.08	
	Acacia tetragonophylla	1%	1.8m	YB19.08	
	Cenchrus ciliaris	3%	0.3m	YB01.14	
	Chrysopogon fallax	40%	0.8m	YB18.14	Dying.
	Eragrostis aff. eriopoda (WAS site 963)	8%	0.3m	YB04.27	
	Gossypium australe (Burrup Peninsula form)	2%	1.2m	YB33.14	
	Hakea lorea subsp. lorea	2%	1.1m	YB01.07	
	Hakea lorea subsp. lorea	8%	0.6m	YB02.31	
	Iseilema eremaeum	3%	0.1m	YB20.30	
	Maireana villosa	6%	0.4m	YB19.03	
	Ptilotus astrolasius var. astrolasius	1%	0.5m	YB01.27	
	Rhagodia eremaea	6%	2.2m	YB18.08	
	Sclerolaena cornishiana	5%	0.4m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	15%	0.8m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	2%	0.6m	YB15.15	
	Sida aff. fibulifera (FMG 125-20)	1%	0.4m	YB33.12	
	Solanum lasiophyllum	1%	0.8m	YB02.32	
	Triodia pungens	3%	1.2m	YB33.22	

**Site** YB34

**Described Season** RM **Date** 4/18/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **mE** 786370 **mN** 7454510

**Habitat** Drainage line.

**Soil** Red, brown sand.

**Rock** Ironstone.

**Vegetation** Acacia ancistrocarpa, Acacia dictyophleba high shrubland over Corchorus sidoides, Senna artemisioides subsp. oligophylla x helmsii, Sida aff. echinocarpa (MET 15,350), Corchorus tectus, Ptilotus astrolasius var. astrolasius low shrubland over Triodia pungens scattered hummock grasses over Cenchrus ciliaris, Chrysopogon fallax, Iseilema eremaeum, Aristida contorta, Dactyloctenium radulans closed tussock grassland over Ipomoea muelleri scattered herbs.

**Veg** Poor. Area disturbed by cattle. Many dead grasses.

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Acacia ancistrocarpa	25%		2.5m	YB06.01	
	Acacia dictyophleba	1%		1.8m	YB05.14	
	Aristida contorta	2%		0.3m	YB01.17	
	Cenchrus ciliaris	45%		0.6m	YB01.14	
	Chrysopogon fallax	45%		1.0m	YB18.14	
	Corchorus sidoides	8%		0.3m	YB34.11	
	Corchorus tectus	5%		0.2m	YB34.10	
	Dactyloctenium radulans	2%		<0.1m	YB01.23	
	Ipomoea muelleri	1%		CR	YB04.11	
	Iseilema eremaeum	2%		0.1m	YB20.30	
	Ptilotus astrolasius var. astrolasius	2%		0.8m	YB34.05	
	Senna artemisioides subsp. oligophylla x helmsii	5%		0.6m	YB06.12	
	Senna notabilis	1%		0.6m	YB01.33	
	Sida aff. echinocarpa (MET 15,350)	5%		0.2m	YB34.12	
	Solanum lasiophyllum	+		1.0m	YB02.32	
	Triodia pungens	1%		0.5m	YB34.16	



**Site** YB35  
**Described** RM **Date** 4/19/2008 **Type** Q **25 x 100m**  
**Season** **Uniformity**

**Location**

**MGA** 50 **795843 mE** **7442049 mN**  
**Habitat** Floodplain - sandplain.  
**Soil** Red, brown clayey sand.  
**Rock** Ironstone.  
**Vegetation** Acacia pruinocarpa low open woodland over Senna artemisioides subsp. oligophylla x helmsii, Acacia aneura, Acacia tetragonophylla open scrub over Eremophila lanceolata, Acacia aneura var. aneura, Maireana villosa, Solanum lasiophyllum, Senna artemisioides subsp. helmsii low shrubland over Iseilema eremaum, Aristida contorta open tussock grassland over Ipomoea muelleri scattered herbs.  
**Veg** Poor. Many dead grasses, possibly due to lack of water. Area affected by cattle grazing.  
**Fire** Moderate.  
**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia aneura	5%	4.5m	YB35.12
	Acacia aneura var. aneura	6%	0.6m	YB01.05
	Acacia pruinocarpa	3%	7.0m	YB26.20
	Acacia tetragonophylla	5%	2.5m	YB19.08
	Aristida contorta	5%	0.1m	YB01.17
	Enneapogon polyphyllus	1%	0.1m	YB19.25
	Eremophila lanceolata	6%	0.2m	YB20.23
	Goodenia microptera	+	<0.1m	YB35.23
	Goodenia microptera	+	0.2m	YB35.13
	Hibiscus sturtii var. grandiflorus	+	0.2m	YB35.22
	Ipomoea muelleri	2%	CR	YB04.11
	Iseilema eremaum	10%	<0.1m	YB20.30
	Maireana villosa	6%	0.6m	YB19.03
	Mukia maderaspatana	1%	CR	YB07.23
	Paspalidium rarum	1%	0.1m	YB35.15
	Pterocaulon sphaeranthoides	+	0.3m	YB26.26
	Ptilotus gomphrenoides var. gomphrenoides	1%	0.1m	YB20.16
	Rhynchosia minima var. australis	3%	CR	YB01.12
	Sclerolaena cornishiana	1%	0.6m	YB11.09
	Senna artemisioides subsp. helmsii	2%	0.4m	YB28.07
	Senna artemisioides subsp. oligophylla x helmsii	25%	1.0m	YB06.12
	Sida aff. fibulifera (FMG 125-20)	1%	0.1m	YB04.26
	Solanum lasiophyllum	3%	0.2m	YB02.32

<b>Site</b>	YB36		
<b>Described Season</b>	RM	<b>Date</b>	4/19/2008 <b>Type</b> Q 25 x 100m
			<b>Uniformity</b>
<b>Location</b>			
<b>MGA</b>	50	795188 <b>mE</b>	7444001 <b>mN</b>
<b>Habitat</b>	Sandplain.		
<b>Soil</b>	Red, brown sandy loam.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259) low open woodland over Senna artemisioides subsp. helmsii, Senna artemisioides subsp. oligophylla x helmsii, Acacia pruinocarpa, Cullen lachnostachys, Acacia synchronicia shrubland over Gossypium australe (Burrup Peninsula form), Trichodesma zeylanicum var. zeylanicum, Ptilotus obovatus var. obovatus low open heath over Chrysopogon fallax, Chloris pectinata, Iseilema eremaeum, Dactyloctenium radulans, Cenchrus ciliaris, Eragrostis tenellula closed tussock grassland over Ipomoea muelleri, Goodenia microptera, Boerhavia coccinea, Heliotropium paniculatum very open herbland.		
<b>Veg</b>	Good. Many dead grasses, possibly due to lack of water. Area disturbed by cattle grazing.		
<b>Fire</b>	Moderate.		
<b>Notes</b>			

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Abutilon macrum	+	0.2m	YB36.37	
	Acacia aff. aneura (narrow fine veined; site 1259)	3%	5.5m	YB36.15	
	Acacia pruinocarpa	2%	1.0m	YB26.20	
	Acacia synchronicia	2%	1.4m	YB01.08	
	Boerhavia coccinea	1%	0.2m	YB08.18	
	Cenchrus ciliaris	2%	0.5m	YB01.14	
	Chloris pectinata	10%	0.2m	YB20.05	
	Chrysopogon fallax	80%	1.2m	YB18.14	
	Cleome viscosa	+	0.3m	YB04.22	
	Cullen lachnostachys	2%	1.2m	YB25.43	
	Dactyloctenium radulans	2%	0.1m	YB01.23	
	Eragrostis tenellula	2%	0.4m	YB36.33	
	Eremophila lanceolata	2%	0.3m	YB20.23	
	Eriachne aristidea	+	0.2m	YB26.04	
	Gomphrena kanisii	+	0.1m	YB07.28	
	Goodenia microptera	1%	0.2m	YB35.13	
	Goodenia microptera	1%	0.3m	YB35.13	
	Gossypium australe (Burrup Peninsula form)	8%	0.9m	YB10.11	
	Heliotropium paniculatum	1%	0.2m	YB01.28	
	Ipomoea muelleri	2%	CR	YB04.11	
	Iseilema eremaeum	5%	0.1m	YB20.30	
	Malvastrum americanum	+	0.2m	YB36.35	
	Mukia maderaspatana	+	CR	YB07.23	
	Neptunia dimorphantha	+	CR	YB26.37	
	Phyllanthus maderaspatensis	1%	0.2m	YB01.10	
	Pluchea dunlopii	1%	1.0m	YB36.21	
	Pterocaulon sphaeranthoides	2%	0.3m	YB26.26	
	Ptilotus gomphrenoides var. gomphrenoides	+	0.2m	YB20.16	
	Ptilotus obovatus var. obovatus	2%	0.6m	YB36.13	
	Rhynchosia minima var. australis	2%	0.1m	YB01.12	
	Senna artemisioides subsp. helmsii	10%	1.4m	YB28.07	

<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	10%	1.2m	YB06.12
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>			YB36.14a
<i>Senna notabilis</i>	1%	0.5m	YB01.33
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)	2%	0.7m	YB36.16
<i>Sida platycalyx</i>	1%	0.2m	YB36.14
<i>Streptoglossa bubakii</i>	+	0.1m	YB36.22
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	8%	1.0m	YB04.17
<i>Triodia basedowii</i>			YB36.13a

**Site** YB37

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 794476 **mE** 7444943 **mN**

**Habitat** Sandplain, with deep holes.

**Soil** Red, brown sand with many rocks.

**Rock** Ironstone.

**Vegetation** Acacia aff. aneura (narrow fine veined; site 1259) high open shrubland over Senna artemisioides subsp. helmsii, Acacia aneura var. aneura, Acacia tetragonophylla high shrubland over Senna artemisioides subsp. oligophylla x helmsii, Maireana villosa low shrubland over Chrysopogon fallax, Cenchrus ciliaris, Aristida contorta tussock grassland over Pterocaulon sphaeranthoides very open herbland.

**Veg** Poor. Area disturbed by grazing. Many of the grasses are dead.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	2%	5.0m	YB37.11	
	Acacia aneura var. aneura	6%	1.3m	YB01.05	
	Acacia tetragonophylla	2%	1.2m	YB19.08	
	Aristida contorta	2%	0.3m	YB01.17	
	Boerhavia repleta	+	0.1m	YB37.29	
	Cenchrus ciliaris	2%	0.1m	YB01.14	
	Chrysopogon fallax	50%	1.0m	YB18.14	
	Dactyloctenium radulans	+	<0.1m	YB01.23	
	Eremophila lanceolata	2%	0.3m	YB20.23	
	Eriachne aristidea	+	0.2m	YB26.04	
	Gomphrena kanisii	+	0.2m	YB07.28	
	Gomphrena sp.	+	0.1m	YB37.06	
	Hakea lorea subsp. lorea	+	0.4m	YB02.31	
	Hibiscus sturtii var. aff. grandiflorus	1%	0.2m	YB37.15	
	Ipomoea muelleri	+	CR	YB04.11	
	Iseilema eremaum	1%	0.1m	YB20.30	
	Maireana villosa	1%	0.3m	YB19.03	
	Mukia maderaspatana	+	CR	YB07.23	
	Neptunia dimorphantha	+	0.1m	YB37.32	
	Perotis rara	1%	0.1m	YB04.23	
	Psyrax latifolia	+	0.6m	YB31.26	
	Pterocaulon sphaeranthoides	2%	0.2m	YB26.26	
	Ptilotus exaltatus var. exaltatus	+	0.1m	YB28.16	
	Salsola tragus subsp. tragus	+	0.2m	YB09.16	
	Sclerolaena cornishiana	1%	0.2m	YB11.09	
	Senna artemisioides subsp. helmsii	8%	1.0m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	10%	0.8m	YB06.12	
	Senna glutinosa subsp. luerksenii	+	3.0m	YB37.14	
	Sida aff. fibulifera (FMG 125-20)	1%	<0.1m	YB32.22	
	Solanum lasiophyllum	+	0.3m	YB02.32	
	Tephrosia aff. supina (MET 12,357)	+	0.1m	YB37.31	

**Site** YB38

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 793372 **mE** 7446253 **mN**

**Habitat** Floodplain.

**Soil** Red, brown sandy loam.

**Rock**

**Vegetation** Corymbia aspera, Acacia aneura var. pilbarana low open woodland over Senna artemisioides subsp. oligophylla x helmsii, Acacia pruinocarpa shrubland over Maireana villosa, Senna artemisioides subsp. helmsii, Solanum lasiophyllum, Eremophila lanceolata, Rhagodia eremaea, Acacia ancistrocarpa low shrubland over Chrysopogon fallax, Cenchrus ciliaris, Dactyloctenium radulans very open tussock grassland over Gomphrena kanisii, Goodenia microptera very open herbland.

**Veg** Poor. Many dead grasses.

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia ancistrocarpa	2%	1.2m	YB06.01
	Acacia aneura var. pilbarana	3%	6.0m	YB38.13
	Acacia pruinocarpa	3%	1.4m	YB26.20
	Cenchrus ciliaris	2%	0.2m	YB01.14
	Chrysopogon fallax	8%	1.1m	YB18.14
	Corymbia aspera	2%	8.0m	YB38.14
	Dactyloctenium radulans	1%	<0.1m	YB01.23
	Eremophila lanceolata	3%	0.2m	YB20.23
	Eremophila sp.	1%	1.2m	YB38.15
	Eriachne aristidea	1%	<0.1m	YB26.04
	Eulalia aurea	1%	0.7m	YB24.09
	Gomphrena kanisii	3%	0.4m	YB07.28
	Goodenia microptera	1%	0.3m	YB35.13
	Ipomoea muelleri	+	CR	YB04.11
	Maireana villosa	4%	0.3m	YB19.03
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YB28.16
	Rhagodia eremaea	2%	0.4m	YB18.08
	Salsola tragus subsp. tragus	+	0.1m	YB09.16
	Senna artemisioides subsp. helmsii	4%	0.6m	YB28.07
	Senna artemisioides subsp. oligophylla x helmsii	10%	1.2m	YB06.12
	Sida aff. fibulifera (FMG 125-20)	1%	0.2m	YB04.26
	Solanum lasiophyllum	3%	0.8m	YB02.32
	Tragus australianus	+	<0.1m	YB09.17
	Trichodesma zeylanicum var. zeylanicum	+	0.3m	YB04.17

<b>Site</b>	YB39		
<b>Described Season</b>	RM	<b>Date</b>	4/19/2008
		<b>Type</b>	Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	791886	mE
			7448015 mN
<b>Habitat</b>	Sandplain.		
<b>Soil</b>	Red, brown sandy loam.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Corymbia hamersleyana low open woodland over Acacia ancistrocarpa, Acacia aff. aneura (narrow fine veined; site 1259), Hakea lorea subsp. lorea, Acacia pruinocarpa high shrubland over Senna artemisioides subsp. oligophylla x helmsii, Senna glutinosa subsp. pruinosa, Senna artemisioides subsp. helmsii, Acacia tetragonophylla open heath over Maireana villosa, Solanum lasiophyllum, Eremophila lanceolata, Sida aff. fibulifera (FMG 125-20) low shrubland over Chrysopogon fallax, Eriachne aristidea, Eulalia aurea, Cenchrus ciliaris tussock grassland over Sclerolaena cornishiana, Salsola tragus subsp. tragus very open herbland.		
<b>Veg</b>	Good. Many dead grasses and some metal refuse present.		
<b>Fire</b>	Old.		
<b>Notes</b>			

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	5%	3.0m	YB39.14	
	Acacia ancistrocarpa	14%	2.3m	YB06.01	
	Acacia pruinocarpa	2%	4.0m	YB26.20	
	Acacia tetragonophylla	3%	1.8m	YB19.08	
	Boerhavia coccinea	+	0.2m	YB08.18	
	Cenchrus ciliaris	2%	1.0m	YB01.14	
	Chrysopogon fallax	50%	1.2m	YB18.14	
	Corchorus tectus	1%	0.3m	YB39.32	
	Corymbia hamersleyana	2%	1.6m	YB38.23	
	Dactyloctenium radulans	1%	0.1m	YB01.23	
	Eremophila lanceolata	3%	0.4m	YB20.23	
	Eriachne aristidea	3%	0.3m	YB26.04	
	Eulalia aurea	2%	1.0m	YB24.09,	
	Euphorbia australis (mid-green form)	+	0.1m	YB03.18	
	Gomphrena kanisii	+	0.2m	YB07.28	
	Hakea lorea subsp. lorea	2%	3.0m	YB01.07	
	Hibiscus sturtii var. platyklamys	+	0.2m	YB39.17	
	Ipomoea muelleri	+	CR	YB04.11	
	Iseilema eremaeum	1%	<0.1m	YB20.30	
	Maireana villosa	6%	0.3m	YB19.03	
	Pluchea dunlopia	+	0.3m	YB28.04	
	Pterocaulon sphaeranthoides	1%	0.2m	YB26.26	
	Ptilotus exaltatus var. exaltatus	+	0.2m	YB28.16	
	Salsola tragus subsp. tragus	1%	0.2m	YB09.16	
	Sclerolaena cornishiana	2%	0.2m	YB11.09	
	Senna artemisioides subsp. helmsii	3%	1.3m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	18%	1.4m	YB06.12	
	Senna glutinosa subsp. pruinosa	16%	1.4m	YB01.04	
	Sida aff. fibulifera (FMG 125-20)	2%	0.3m	YB04.26	
	Sida platycalyx	+	0.8m	YB39.22	
	Solanum lasiophyllum	3%	0.4m	YB02.32	
	Trichodesma zeylanicum var. zeylanicum	+	0.1m	YB04.17	



**Site** YB40

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 790418 **mE** 7449764 **mN**

**Habitat** Floodplain.

**Soil** Fine red, brown sand.

**Rock** Ironstone.

**Vegetation** Corymbia aff. opaca scattered low trees over Acacia aneura var. conifera, Acacia synchronicia high open shrubland over Senna artemisioides subsp. oligophylla x helmsii, Maireana villosa, Acacia aneura var. aneura, Hakea lorea subsp. lorea low shrubland over Dactyloctenium radulans, Aristida contorta, Cenchrus ciliaris very open tussock grassland over Sclerolaena cornishiana, Tribulus cistoides, Boerhavia coccinea, Ipomoea muelleri very open herbland.

**Veg** Very poor. Area affected by previous clearing and metal refuse.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia aneura var. aneura	2%	0.4m	YB01.05
	Acacia aneura var. conifera	3%	4.0m	YB40.11
	Acacia dictyophleba	1%	1.2m	YB05.14
	Acacia synchronicia	2%	2.5m	YB01.08
	Acacia tetragonophylla	1%	1.2m	YB19.08
	Aristida contorta	1%	0.2m	YB01.17
	Boerhavia coccinea	2%	0.3m	YB08.18
	Cenchrus ciliaris	1%	0.2m	YB01.14
	Corymbia aff. opaca	1%	4.5m	YB40.15
	Dactyloctenium radulans	2%	<0.1m	YB01.23
	Eremophila lanceolata	1%	0.4m	YB20.23
	Euphorbia australis (mid-green form)	+	<0.1m	YB03.18
	Grevillea wickhamii subsp. hispidula	1%	0.8m	YB31.24
	Hakea lorea subsp. lorea	2%	0.1m	YB02.31
	Ipomoea muelleri	1%	CR	YB04.11
	Maireana villosa	4%	0.3m	YB19.03
	Portulaca oleracea	+	0.1m	YB04.16
	Sclerolaena cornishiana	5%	0.6m	YB11.09
	Senna artemisioides subsp. oligophylla x helmsii	5%	0.8m	YB06.12
	Senna notabilis	1%	0.4m	YB01.33
	Sida aff. fibulifera (FMG 125-20)	1%	0.1m	YB04.26
	Sida platycalyx	+	0.2m	YB40.24
	Solanum lasiophyllum	+	0.3m	YB02.32
	Tribulus cistoides	2%	0.1m	YB24.18

<b>Site</b>	YB41		
<b>Described Season</b>	RM	<b>Date</b>	4/19/2008
		<b>Type</b>	Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	788830	mE
			7451661 mN
<b>Habitat</b>	Floodplain - sandplain.		
<b>Soil</b>	Red, brown sand with scattered rocks.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Acacia tetragonophylla shrubland over Senna artemisioides subsp. oligophylla x helmsii, Pluchea dunlopia, Senna artemisioides subsp. helmsii, Hibiscus sturtii var. aff. grandiflorus, Tephrosia aff. supina (MET 12,357), Eremophila lanceolata, Rhagodia eremaea, Solanum lasiophyllum low shrubland over Chrysopogon fallax, Tragus australianus open tussock grassland over Sclerolaena cornishiana, Goodenia microptera, Pterocaulon sphaeranthoides, Boerhavia coccinea herbland.		
<b>Veg</b>	Very poor. Area disturbed by grazing and previous clearing. Many dead grasses.		
<b>Fire</b>	Old.		
<b>Notes</b>			

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia synchronicia	1%	0.3m	YB01.08	
	Acacia tetragonophylla	15%	1.2m	YB19.08	
	Boerhavia coccinea	1%	<0.1m	YB08.18	
	Boerhavia repleta	+	<0.1m	YB41.26	
	Bonamia rosea	+	0.2m	YB06.04	
	Bulbostylis barbata	+	<0.1m	YB41.25	
	Chrysopogon fallax	2%	1.0m	YB18.14	
	Cullen lachnostachys	+	1.0m	YB25.43	
	Dactyloctenium radulans	+	<0.1m	YB01.23	
	Eragrostis tenellula	+	<0.1m	YB01.16	
	Eremophila lanceolata	2%	0.1m	YB20.23	
	Euphorbia australis (mid-green form)	+	<0.1m	YB03.18	Prostrate.
	Goodenia lamprosperma	+	0.3m	YB41.06	
	Goodenia microptera	2%	<0.1m	YB41.29	
	Goodenia nuda	+	0.2m	YB25.31	
	Hakea lorea subsp. lorea	1%	0.4m	YB01.07	
	Hibiscus sturtii var. aff. grandiflorus	2%	<0.1m	YB41.30	
	Ipomoea muelleri	+	CR	YB04.11	
	Pluchea dunlopia	4%	0.2m	YB28.04	
	Portulaca oleracea	+	<0.1m	YB04.16	
	Pterocaulon sphaeranthoides	1%	0.2m	YB26.26	
	Rhagodia eremaea	2%	1.0m	YB18.08	
	Salsola tragus subsp. tragus	+	0.1m	YB09.16	
	Sclerolaena cornishiana	40%	0.1m	YB11.09	
	Senna artemisioides subsp. helmsii	4%	0.8m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	6%	0.7m	YB06.12	
	Senna notabilis	1%	0.4m	YB01.33	
	Solanum lasiophyllum	2%	0.3m	YB02.32	
	Tephrosia aff. supina (MET 12,357)	2%	<0.1m	YB41.28	
	Tragus australianus	1%	<0.1m	YB09.17	
	Triodia pungens	+	0.3m	YB41.31	

**Site** YB42

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 786943 **mE** 7453920 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand with scattered rocks.

**Rock** Ironstone.

**Vegetation** *Corymbia deserticola* subsp. *deserticola* low open woodland over *Acacia ancistrocarpa*, *Acacia paraneura*, *Acacia* aff. *aneura* (narrow fine veined; site 1259), *Acacia aneura* var. *intermedia* open scrub over *Dodonaea petiolaris* open shrubland over *Sclerolaena cornishiana*, *Maireana villosa*, *Ptilotus obovatus* var. *obovatus*, *Acacia tetragonophylla*, *Senna artemisioides* subsp. *helmsii*, *Hibiscus sturtii* var. *platyphlamys*, *Senna artemisioides* subsp. *oligophylla* x *helmsii* low open heath over *Chrysopogon fallax*, *Aristida contorta*, *Enneapogon polyphyllus* tussock grassland over *Ipomoea muelleri* very open herbland.

**Veg** Good. Many dead grasses. Area disturbed by metal refuse.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259)	2%	0.3m	YB36.15	
	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259)	3%	3.0m	YB42.18	
	<i>Acacia ancistrocarpa</i>	25%	2.5m	YB06.01	
	<i>Acacia aneura</i> var. <i>intermedia</i>	2%	2.0m	YB42.19	
	<i>Acacia paraneura</i>	3%	2.5m	YB42.17	
	<i>Acacia tetragonophylla</i>	3%	0.8m	YB19.08	
	<i>Aristida contorta</i>	1%	0.3m	YB01.17	
	<i>Boerhavia repleta</i>	+	CR	YB23.15	
	<i>Chrysopogon fallax</i>	60%	0.9m	YB18.14	
	<i>Corymbia deserticola</i> subsp. <i>deserticola</i>	4%	3.0m	YB31.23	
	<i>Dactyloctenium radulans</i>	+	<0.1m	YB01.23	
	<i>Dodonaea petiolaris</i>	5%	1.2m	YB42.22	
	<i>Duperreya commixta</i>	+	CR	YB01.03	
	<i>Enneapogon polyphyllus</i>	1%	<0.1m	YB42.26	
	<i>Hibiscus sturtii</i> var. <i>platyphlamys</i>	2%	0.2m	YB42.27	
	<i>Ipomoea muelleri</i>	3%	CR	YB04.11	
	<i>Maireana villosa</i>	14%	0.4m	YB19.03	
	<i>Mukia maderaspatana</i>	+	CR	YB07.23	
	<i>Portulaca oleracea</i>	+	<0.1m	YB04.16	
	<i>Pterocaulon sphaeranthoides</i>	2%	0.3m	YB26.26	
	<i>Ptilotus obovatus</i> var. <i>obovatus</i>	4%	0.8m	YB42.23	
	<i>Sclerolaena cornishiana</i>	40%	0.3m	YB11.09	
	<i>Senna artemisioides</i> subsp. <i>helmsii</i>	3%	0.6m	YB28.07	
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	2%	0.2m	YB06.12	
	<i>Solanum lasiophyllum</i>	2%	0.9m	YB02.32	
	<i>Tribulus suberosus</i>	+	0.3m	YB42.20	

**Site** YB43

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 785262 **mE** 7455819 **mN**

**Habitat** Sandplain.

**Soil** Red, brown sandy loam with scattered rocks.

**Rock** Ironstone.

**Vegetation** Acacia aff. aneura (narrow fine veined; site 1259) low woodland over Acacia ancistrocarpa, Acacia pruinocarpa, Psydrax latifolia high shrubland over Acacia citrinoviridis, Senna artemisioides subsp. helmsii, over Acacia aneura var. conifera, Acacia tetragonophylla, Senna artemisioides subsp. oligophylla x helmsii open heath over Sida aff. fibulifera (FMG 125-20), Sclerolaena cornishiana low shrubland over Chrysopogon fallax, Cenchrus ciliaris very open tussock grassland over Bonamia rosea very open herbland.

**Veg** Good. Many dead grasses.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon macrum	+	0.2m	YB36.37	
	Acacia aff. aneura (narrow fine veined; site 1259)	30%	7.0m	YB43.02	
	Acacia ancistrocarpa	12%	3.0m	YB06.01	
	Acacia aneura var. conifera	15%	0.9m	YB43.03	
	Acacia citrinoviridis	10%	1.6m	YB01.02	
	Acacia pruinocarpa	10%	3.2m	YB26.20	
	Acacia tetragonophylla	6%	1.9m	YB19.08	
	Boerhavia coccinea	+	0.1m	YB08.18	
	Bonamia rosea	4%	0.2m	YB06.04	
	Cenchrus ciliaris	2%	0.4m	YB01.14	
	Chrysopogon fallax	10%	1.2m	YB18.14	
	Cleome viscosa	+	0.7m	YB01.19	
	Dodonaea petiolaris	1%	0.7m	YB42.22	
	Enneapogon polyphyllus	+	0.5m	YB42.26	
	Maireana villosa	+	0.3m	YB19.03	
	Psydrax latifolia	2%	2.5m	YB31.26	
	Ptilotus astrolasius var. astrolasius	1%	0.9m	YB34.05	
	Ptilotus astrolasius var. astrolasius	+	0.1m	YB43.26	
	Rhagodia eremaea	1%	2.0m	YB18.08	
	Rhynchosia minima var. australis	1%	0.3m	YB01.12	
	Salsola tragus subsp. tragus	+	0.2m	YB09.16	
	Sclerolaena cornishiana	20%	0.4m	YB11.09	
	Senna artemisioides subsp. helmsii	2%	1.2m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	6%	1.1m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	6%	0.4m	YB04.26	
	Solanum lasiophyllum	+	0.3m	YB02.32	

**Site** YB44  
**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 783398 **mE** 7457985 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown loamy sand.

**Rock** Ironstone.

**Vegetation** Acacia dictyophleba, Acacia ancistrocarpa, Acacia pruinocarpa, Acacia pachyacra open scrub over Sclerolaena cornishiana, Sida aff. fibulifera (FMG 125-20), Hibiscus sturtii var. platyklamys, Tephrosia aff. supina (MET 12,357), Senna artemisioides subsp. oligophylla x helmsii, Corchorus tectus low shrubland over Triodia pungens hummock grassland over Cenchrus ciliaris tussock grassland.

**Veg** Good. Area affected by weeds and previous soil disturbance.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	20%	2.5m	YB06.01	
	Acacia dictyophleba	40%	2.2m	YB05.14	
	Acacia pachyacra	1%	2.0m	YB44.08	
	Acacia pruinocarpa	10%	2.8m	YB26.20	
	Boerhavia repleta	+	0.1m	YB23.15	
	Cenchrus ciliaris	40%	0.8m	YB01.14	
	Cleome viscosa	+	0.1m	YB04.22	
	Corchorus tectus	2%	0.3m	YB38.32	
	Hibiscus sturtii var. platyklamys	3%	0.6m	YB44.18	
	Portulaca oleracea	+	<0.1m	YB04.16	Prostrate.
	Rhagodia eremaea	+	1.8m	YB18.08	
	Rhynchosia minima var. australis	2%	0.2m	YB01.12	
	Sclerolaena cornishiana	5%	0.4m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	2%	0.3m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	5%	0.5m	YB44.19	
	Solanum lasiophyllum	1%	1.2m	YB02.32	
	Tephrosia aff. supina (MET 12,357)	3%	0.1m	YB44.16	
	Trichodesma zeylanicum var. zeylanicum	+	0.2m	YB04.17	
	Triodia pungens	50%	0.9m	YB44.09	

**Site** YB45

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **mE** 782027 **mN** 7459909

**Habitat** Floodplain.

**Soil** Red, brown sand with scattered rocks.

**Rock** Ironstone.

**Vegetation** Acacia pachyacra, Acacia pruinocarpa open scrub over Acacia ancistrocarpa, Senna artemisioides subsp. helmsii, Acacia adsurgens open heath over Senna artemisioides subsp. oligophylla x helmsii, Sida cardiophylla, Hibiscus sturtii var. platychlams, Sclerolaena cornishiana, Maireana villosa, Corchorus tectus low shrubland over Triodia lanigera hummock grassland over Chrysopogon fallax, Eragrostis aff. eriopoda (WAS site 963), Paraneurachne muelleri tussock grassland over Bonamia rosea very open herbland.

**Veg** Good. Area disturbed by ripping and metal refuse. Many dead grasses.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia adsurgens	3%	2.0m	YB45.06
	Acacia ancistrocarpa	40%	1.8m	YB06.01
	Acacia pachyacra	20%	2.5m	YB45.04
	Acacia pruinocarpa	15%	2.5m	YB26.20
	Boerhavia coccinea	+	0.1m	YB08.18
	Bonamia rosea	2%	0.4m	YB06.04
	Chrysopogon fallax	35%	0.8m	YB18.14
	Cleome viscosa	+	0.3m	YB04.22
	Corchorus tectus	2%	0.6m	YB38.32
	Eragrostis aff. eriopoda (WAS site 963)	2%	0.5m	YB04.27
	Hibiscus sturtii var. platychlams	5%	0.5m	YB45.14
	Iseilema eremaum	1%	0.1m	YB20.30
	Maireana villosa	2%	0.6m	YB19.03
	Paraneurachne muelleri	2%	0.2m	YB01.29
	Sclerolaena cornishiana	5%	0.6m	YB11.09
	Senna artemisioides subsp. helmsii	3%	1.2m	YB28.07
	Senna artemisioides subsp. oligophylla x helmsii	8%	0.5m	YB06.12
	Sida cardiophylla	8%	0.3m	YB45.13
	Solanum lasiophyllum	1%	0.8m	YB02.32
	Triodia lanigera	50%	1.2m	YB45.16



**Site** YB46

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 780588 **mE** 7461945 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand with scattered rocks.

**Rock** Ironstone.

**Vegetation** Acacia ancistrocarpa, Acacia pruinocarpa, Acacia pachyacra, Acacia aff. aneura (narrow fine veined; site 1259) open scrub over Acacia dictyophleba, Senna glutinosa subsp. luerksenii x stricta open shrubland over Dodonaea petiolaris, Eremophila sp., Ptilotus obovatus var. obovatus, Maireana villosa, Hibiscus burtonii low open heath over Triodia pungens very open hummock grassland over Chrysopogon fallax, Paraneurachne muelleri open tussock grassland.

**Veg** Good. Area disturbed by metal refuse.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon otocarpum	2%	0.8m	YB46.17	
	Acacia aff. aneura (narrow fine veined; site 1259)	2%	3.0m	YB46.11	
	Acacia ancistrocarpa	25%	3.5m	YB06.01	
	Acacia dictyophleba	5%	1.0m	YB05.14	
	Acacia pachyacra	5%	5.5m	YB46.15	
	Acacia pruinocarpa	15%	3.0m	YB26.20	
	Acacia tetragonophylla	1%	0.8m	YB19.08	
	Boerhavia coccinea	+	0.1m	YB08.18	
	Chrysopogon fallax	10%	1.2m	YB18.14	
	Cleome viscosa	+	0.2m	YB04.22	
	Dactyloctenium radulans	+	0.4m	YB01.23	
	Dodonaea petiolaris	30%	0.5m	YB46.03	
	Eremophila lanceolata	1%	0.4m	YB20.23	
	Eremophila sp.	8%	0.8m	YB38.15	
	Hibiscus burtonii	2%	0.6m	YB46.18	
	Ipomoea muelleri	1%	CR	YB04.11	
	Maireana villosa	5%	0.3m	YB19.03	
	Mukia maderaspatana	+	CR	YB07.23	
	Paraneurachne muelleri	2%	0.2m	YB01.29	
	Psyrax latifolia	1%	1m	YB31.26	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YB28.16	
	Ptilotus obovatus var. obovatus	8%	0.6m	YB42.23	
	Rhagodia eremaea	1%	2.5m	YB18.08	
	Senna artemisioides subsp. helmsii	+	0.2m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	+	0.4m	YB06.12	
	Senna glutinosa subsp. luerksenii x stricta	2%	2.0m	YB46.20	
	Sida aff. fibulifera (FMG 125-20)	+	0.1m	YB46.24	
	Solanum lasiophyllum	+	0.2m	YB02.32	
	Solanum sturtianum	2%	1.2m	YB46.16	
	Tragus australianus	+	0.1m	YB09.17	
	Triodia pungens	5%	0.8m	YB46.14	

**Site** YB47

**Described** RM **Date** 4/19/2008 **Type** 25 x 100m  
**Season** **Uniformity**

**Location**

**MGA** 50 779203 **mE** 7463903 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand.

**Rock** Ironstone.

**Vegetation** Acacia ancistrocarpa, Acacia aff. aneura (narrow fine veined; site 1259), Acacia tetragonophylla, Acacia stowardii (linear form), Acacia sclerosperma subsp. sclerosperma open scrub over Senna artemisioides subsp. helmsii, Ptilotus obovatus var. obovatus open shrubland over Maireana villosa, Senna artemisioides subsp. oligophylla x helmsii, Sclerolaena cornishiana, Senna notabilis, Acacia aneura var. aneura low shrubland over Chrysopogon fallax, Dactyloctenium radulans, Enneapogon polyphyllus, Aristida contorta, Enneapogon robustissimus very open tussock grassland over Boerhavia coccinea scattered herbs.

**Veg** Poor. Area affected by metal refuse and ripping. Many dead grasses.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	15%	5.0m	YB47.15	
	Acacia ancistrocarpa	20%	2.3m	YB06.01	
	Acacia aneura var. aneura	2%	0.8m	YB01.05	
	Acacia sclerosperma subsp. sclerosperma	2%	2.5m	YB01.22	
	Acacia stowardii (linear form)	2%	2.2m	YB47.29	
	Acacia tetragonophylla	4%	2.2m	YB19.08	
	Aristida contorta	1%	0.2m	YB01.17	
	Boerhavia coccinea	1%	0.1m	YB08.18	
	Chrysopogon fallax	5%	1.2m	YB18.14	
	Cleome viscosa	+	0.3m	YB04.22	
	Dactyloctenium radulans	2%	<0.1m	YB01.23	
	Enneapogon polyphyllus	1%	0.1m	YB42.26	
	Enneapogon robustissimus	1%	0.8m	YB47.26	
	Eremophila lanceolata	+	0.2m	YB20.23	
	Gossypium australe (Burrup Peninsula form)	1%	0.6m	YB10.11	
	Ipomoea muelleri	+	CR	YB04.11	
	Maireana villosa	6%	0.5m	YB19.03	
	Phyllanthus maderaspatensis	+	0.1m	YB01.10	
	Portulaca oleracea	+	<0.1m	YB04.16	Prostrate.
	Psyrax latifolia	1%	0.4m	YB31.26	
	Ptilotus obovatus var. obovatus	2%	1.0m	YB42.23	
	Sclerolaena cornishiana	3%	0.2m	YB11.09	
	Senna artemisioides subsp. helmsii	5%	1.0m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	4%	0.3m	YB06.12	
	Senna notabilis	3%	0.2m	YB01.33	
	Sida platycalyx	1%	0.2m	YB36.14	
	Solanum lasiophyllum	+	0.6m	YB02.32	
	Tephrosia aff. supina (MET 12,357)	1%	0.1m	YB31.13	
	Trichodesma zeylanicum var. zeylanicum	+	0.2m	YB04.17	
	Triodia pungens	1%	0.4m	YB47.21	

**Site** YB48

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location**

**MGA** 50 777315 **mE** 7466566 **mN**

**Habitat** Sandplain.

**Soil** Fine red, brown sand.

**Rock** Ironstone.

**Vegetation** Acacia aff. aneura (narrow fine veined; site 1259), Acacia aneura var. intermedia high open shrubland over Senna artemisioides subsp. oligophylla x helmsii, Acacia tetragonophylla, Acacia synchronicia shrubland over Sclerolaena cornishiana, Sida aff. fibulifera (HD200-6), Sida aff. fibulifera (FMG 125-20), Tephrosia aff. supina (MET 12,357), Ptilotus astrolasius var. astrolasius low shrubland over Eragrostis xerophila, Tragus australianus, Enneapogon polyphyllus, Cenchrus ciliaris open tussock grassland over Portulaca oleracea, Tribulus cistoides, Tribulus astrocarpus very open herbland.

**Veg** Poor. Area affected by cattle and metal refuse.

**Fire** Old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	3%	4.0m	YB48.22	
	Acacia aneura var. intermedia	2%	2.5m	YB48.23	
	Acacia synchronicia	5%	1.6m	YB01.08	
	Acacia tetragonophylla	8%	1.2m	YB19.08	
	Boerhavia coccinea	+	0.1m	YB08.18	
	Boerhavia repleta	+	0.1m	YB23.15	
	Cenchrus ciliaris	2%	0.2m	YB01.14	
	Cleome viscosa	3%	<0.1m	YB04.22	
	Dactyloctenium radulans	1%	0.1m	YB01.23	
	Enneapogon polyphyllus	2%	0.1m	YB42.26	
	Eragrostis tenellula	1%	0.1m	YB01.16	
	Eragrostis xerophila	6%	0.2m	YB22.12	
	Eremophila lanceolata	1%	0.3m	YB20.23	
	Portulaca oleracea	3%	<0.1m	YB04.16	
	Ptilotus astrolasius var. astrolasius	2%	0.9m	YB01.27	
	Ptilotus gomphrenoides var. gomphrenoides	2%	<0.1m	YB20.16	
	Rhagodia eremaea	2%	2.2m	YB18.08	
	Sclerolaena cornishiana	45%	0.7m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	20%	1.6m	YB06.12	
	Senna glutinosa subsp. x luerssenii	+	0.1m	YB46.20	
	Sida aff. fibulifera (FMG 125-20)	5%	0.4m	YB04.26	
	Sida aff. fibulifera (HD200-6)	5%	0.3m	YB48.24	
	Tephrosia aff. supina (MET 12,357)	3%	0.1m	YB31.13	
	Tephrosia aff. supina (MET 12,357)	4%	<0.1m	YB44.16	
	Tragus australianus	2%	0.1m	YB09.17	
	Tribulus astrocarpus	3%	<0.1m	YB20.21	Prostrate.
	Tribulus cistoides	3%	<0.1m	YB24.18	
	Triodia pungens	2%	0.8m	YB48.19	

**Site** YB49

**Described** RM **Date** 4/19/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 776040 **mE** 7468728 **mN**

**Habitat** Sandplain.

**Soil** Dark red, brown sandy loam.

**Rock** Ironstone.

**Vegetation** Acacia synchronicia, Acacia aff. aneura (narrow fine veined; site 1259), Acacia tetragonophylla, Acacia pruinocarpa open scrub over Senna artemisioides subsp. oligophylla x helmsii, Psydrax latifolia open shrubland over Sclerolaena cornishiana, Sida aff. fibulifera (FMG 125-20) low open shrubland over Cenchrus ciliaris, Dactyloctenium radulans very open tussock grassland over Boerhavia coccinea, Cleome viscosa very open herbland.

**Veg** Good to poor. Area disturbed by metal refuse and piles of metal.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	25%	4.5m	YB49.14	
	Acacia pruinocarpa	10%	4.0m	YB26.20	
	Acacia synchronicia	35%	3.0m	YB01.08	
	Acacia tetragonophylla	15%	3.0m	YB19.08	
	Boerhavia coccinea	3%	0.1m	YB08.18	
	Cenchrus ciliaris	2%	0.4m	YB01.14	
	Cleome viscosa	1%	0.1m	YB04.22	
	Dactyloctenium radulans	2%	<0.1m	YB01.23	
	Enneapogon polyphyllus	1%	<0.1m	YB42.26	
	Portulaca oleracea	1%	<0.1m	YB04.16	
	Psydrax latifolia	2%	2.8m	YB31.26	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YB28.16	
	Rhagodia eremaea	+	1.3m	YB18.08	
	Rhynchosia minima var. australis	1%	0.1m	YB01.12	
	Sclerolaena cornishiana	8%	0.4m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	5%	1.1m	YB06.12	
	Setaria verticillata	+	0.3m	YB49.16	
	Sida aff. fibulifera (FMG 125-20)	1%	0.1m	YB04.26	
	Sida aff. fibulifera (FMG 125-20)	2%	0.2m	YB49.18	
	Tribulus cistoides	1%	<0.1m	YB24.18	

<b>Site</b>	YB50		
<b>Described Season</b>	RM	<b>Date</b>	4/19/2008
		<b>Type</b>	Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	775135	mE 7470560 mN
<b>Habitat</b>	Sandplain.		
<b>Soil</b>	Dark red, brown sand with scattered rocks.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Acacia sclerosperma subsp. sclerosperma low open woodland over Acacia aneura, Acacia tetragonophylla, Acacia synchronicia open scrub over Acacia pruinocarpa, Rhagodia eremaea, Senna artemisioides subsp. oligophylla x helmsii shrubland over Sclerolaena cornishiana, Maireana villosa low open shrubland over Chloris pectinata, Aristida latifolia, Dactyloctenium radulans, Cenchrus ciliaris very open tussock grassland over Abutilon macrum, Malvastrum americanum, Cleome viscosa, Ipomoea muelleri very open herbland.		
<b>Veg</b>	Good to poor. Area disturbed by cattle grazing and metal refuse.		
<b>Fire</b>	Very old.		
<b>Notes</b>			

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Abutilon macrum	2%	0.2m	YB36.37
	Acacia ancistrocarpa	2%	2.2m	YB06.01
	Acacia aneura	20%	4.0m	YB50.11
	Acacia pruinocarpa	15%	1.2m	YB26.20
	Acacia sclerosperma subsp. sclerosperma	3%	6.0m	YB01.22
	Acacia synchronicia	15%	2.6m	YB01.08
	Acacia tetragonophylla	15%	3.0m	YB19.08
	Aristida latifolia	2%	1.0m	YB50.24
	Cenchrus ciliaris	1%	0.1m	YB01.14
	Chloris pectinata	2%	0.3m	YB20.05
	Cleome viscosa	2%	0.1m	YB04.22
	Dactyloctenium radulans	1%	<0.1m	YB01.23
	Enneapogon polyphyllus	+	0.1m	YB50.07
	Eragrostis tenellula	+	0.1m	YB01.16
	Eremophila lanceolata	1%	0.4m	YB20.23
	Heliotropium paniculatum	1%	0.2m	YB01.28
	Ipomoea muelleri	1%	CR	YB04.11
	Maireana villosa	2%	0.3m	YB19.03
	Malvastrum americanum	2%	0.4m	YB50.26
	Portulaca oleracea	+	<0.1m	YB04.16
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YB28.16
	Ptilotus gomphrenoides var. gomphrenoides	+	<0.1m	YB20.16
	Rhagodia eremaea	5%	1.8m	YB18.08
	Rostellularia adscendens subsp. adscendens var. latifolia	+	<0.1m	YB50.16
	Sclerolaena cornishiana	3%	0.2m	YB11.09
	Senna artemisioides subsp. oligophylla x helmsii	5%	1.6m	YB06.12
	Setaria verticillata	+	<0.1m	YB49.16
	Sida aff. fibulifera (FMG 125-20)	+	0.2m	YB04.26

<b>Site</b>	YB51		
<b>Described Season</b>	RM	<b>Date</b>	4/19/2008 <b>Type</b> Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	784292 <b>mE</b>	7456873 <b>mN</b>
<b>Habitat</b>	Floodplain		
<b>Soil</b>	Red, brown sandy loam.		
<b>Rock</b>	Ironstone.		
<b>Vegetation</b>	Acacia ancistrocarpa, Acacia citrinoviridis, Acacia aff. aneura (narrow fine veined; site 1259), Acacia coriacea subsp. pendens open scrub over Acacia dictyophleba, Acacia tetragonophylla, Acacia pruinocarpa, Acacia sericophylla open shrubland over Senna artemisioides subsp. oligophylla x helmsii, Sclerolaena cornishiana, Sida aff. fibulifera (FMG 125-20) low open heath over Cenchrus ciliaris, Aristida latifolia, Eriachne aristidea, Eragrostis aff. eriopoda (WAS site 963) tussock grassland over Waltheria indica, Euphorbia australis (mid-green form) very open hermland.		
<b>Veg</b>	Good. Area disturbed by weeds, cattle grazing and metal refuse.		
<b>Fire</b>	Very old.		
<b>Notes</b>			

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	10%	2.5m	YB51.06	
	Acacia ancistrocarpa	20%	2.5m	YB06.01	
	Acacia citrinoviridis	14%	2.3m	YB01.02	
	Acacia coriacea subsp. pendens	2%	4.2m	YB51.13	
	Acacia dictyophleba	2%	2.0m	YB05.14	
	Acacia inaequilatera	1%	2.7m	YB01.21	
	Acacia pruinocarpa	2%	1.1m	YB26.20	
	Acacia sericophylla	2%	1.8m	YB51.14	
	Acacia tetragonophylla	2%	2.0m	YB19.08	
	Aristida latifolia	20%	1.2m	YB50.24	
	Cenchrus ciliaris	30%	0.3m	YB01.14	
	Cleome viscosa	+	0.2m	YB04.22	
	Cullen lachnostachys	+	0.1m	YB25.43	
	Dichanthium sericeum subsp. humilium	+	0.1m	YB51.26	
	Enneapogon intermedius	+	0.4m	YB51.28	
	Eragrostis aff. eriopoda (WAS site 963)	2%	0.8m	YB04.27	
	Eriachne aristidea	2%	0.1m	YB26.04	
	Euphorbia australis (mid-green form)	1%	<0.1m	YB03.18	Prostrate.
	Ipomoea muelleri	+	CR	YB04.11	
	Phyllanthus maderaspatensis	+	0.1m	YB01.10	
	Psyrax latifolia	1%	1.6m	YB31.26	
	Rhynchosia minima var. australis	5%	0.1m	YB01.12	
	Sclerolaena cornishiana	2%	0.3m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	35%	0.6m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	2%	0.3m	YB15.15	
	Solanum lasiophyllum	+	0.4m	YB02.32	
	Tephrosia aff. supina (MET 12,357)	1%	0.1m	YB44.16	
	Tephrosia aff. supina (MET 12,357)	+	0.4m	YB31.13	
	Waltheria indica	2%	0.2m	YB51.24	



**Site** YB52

**Described** RM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m

**Season**

**Location**

**MGA** 50 782618 **mE** 7459029 **mN**

**Habitat** Sandplain.

**Soil** Fine red sand.

**Rock** Ironstone.

**Vegetation** Acacia dictyophleba, Acacia citrinoviridis open scrub over Acacia sericophylla, Rhagodia eremaea, Acacia ancistrocarpa, Solanum lasiophyllum, Acacia pruinocarpa shrubland over Senna artemisioides subsp. oligophylla x helmsii, Hibiscus sturtii var. platyklamys low open shrubland over Triodia schinzii very open hummock grassland over Cenchrus ciliaris, Aristida latifolia closed tussock grassland.

**Veg** Poor. Area affected by weeds.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia ancistrocarpa	2%	1.0m	YB06.01
	Acacia citrinoviridis	2%	2.8m	YB01.02
	Acacia dictyophleba	50%	2.2m	YB05.14
	Acacia pruinocarpa	1%	1.0m	YB26.20
	Acacia sclerosperma subsp. sclerosperma	2%	2.5m	YB01.22
	Acacia sericophylla	4%	1.2m	YB51.14
	Aristida latifolia	10%	1.0m	YB50.24
	Cenchrus ciliaris	70%	0.6m	YB01.14
	Cleome viscosa	+	0.2m	YB04.22
	Dactyloctenium radulans	+	0.1m	YB01.23
	Enneapogon polyphyllus	+	0.1m	YB42.26
	Heliotropium paniculatum	+	0.3m	YB01.28
	Hibiscus sturtii var. platyklamys	2%	0.3m	YB52.16
	Rhagodia eremaea	3%	1.2m	YB18.08
	Senna artemisioides subsp. oligophylla x helmsii	4%	0.6m	YB06.12
	Senna glutinosa subsp. glutinosa	2%	1.5m	YB52.18
	Solanum lasiophyllum	2%	1.0m	YB02.32
	Triodia schinzii	5%	0.8m	YB52.15

**Site** YB53

**Described** RM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 **781235 mE** **7460977 mN**

**Habitat** Sandplain.

**Soil** Red, brown sand.

**Rock** Ironstone.

**Vegetation** Acacia ancistrocarpa, Acacia aff. aneura (narrow fine veined; site 1259), Acacia pruinocarpa, Acacia tetragonophylla open scrub over Maireana villosa, Senna artemisioides subsp. oligophylla x helmsii, Sclerolaena cornishiana, Solanum lasiophyllum, Sida aff. fibulifera (FMG 125-20), Dodonaea petiolaris, Eremophila lanceolata, Acacia aneura var. aneura, Sida platycalyx, Senna artemisioides subsp. helmsii low open heath over Aristida latifolia, Cenchrus ciliaris, Aristida inaequiglumis, Eulalia aurea tussock grassland.

**Veg** Good. Area disturbed by weeds, previous clearing and metal refuse.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	15%	4.0m	YB53.26	
	Acacia ancistrocarpa	20%	2.4m	YB06.01	
	Acacia aneura var. aneura	2%	0.6m	YB01.05	
	Acacia pruinocarpa	1%	2.5m	YB26.20	
	Acacia tetragonophylla	1%	1.0m	YB19.08	
	Aristida inaequiglumis	10%	1.2m	YB53.32	
	Aristida latifolia	40%	1.3m	YB50.24	
	Boerhavia coccinea	+	0.2m	YB08.18	
	Cenchrus ciliaris	20%	0.4m	YB01.14	
	Dactyloctenium radulans	+	<0.1m	YB01.23	
	Dodonaea petiolaris	3%	1.0m	YB42.22	
	Duperreya commixta	+	CR	YB01.03	
	Enneapogon polyphyllus	+	<0.1m	YB42.26	
	Eremophila lanceolata	2%	0.3m	YB20.23	
	Eulalia aurea	2%	0.8m	YB24.09	
	Euphorbia australis (mid-green form)	+	0.1m	YB53.30	
	Hibiscus burtonii	2%	0.2m	YB53.25	
	Ipomoea muelleri	+	CR	YB04.11	
	Iseilema eremaum	4%	0.1m	YB20.30	
	Maireana villosa	20%	0.6m	YB19.03	
	Mukia maderaspatana	+	CR	YB07.23	
	Pterocaulon sphaeranthoides	1%	0.6m	YB26.26	
	Ptilotus exaltatus var. exaltatus	+	0.1m	YB28.16	
	Rhagodia eremaea	+	0.3m	YB18.08	
	Sclerolaena cornishiana	5%	0.4m	YB11.09	
	Senna artemisioides subsp. helmsii	2%	0.6m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	8%	0.8m	YB06.12	
	Senna notabilis	+	0.6m	YB01.33	
	Sida aff. fibulifera (FMG 125-20)	3%	0.2m	YB04.26	
	Sida aff. fibulifera (FMG 125-20)	3%	0.1m	YB32.22	
	Sida platycalyx	2%	0.3m	YB53.24	
	Sida platycalyx	2%	0.3m	YB36.14	
	Solanum lasiophyllum	4%	0.6m	YB02.32	

**Site** YB54  
**Described** RM **Date** 4/20/2008 **Type** Q **25 x 100m**  
**Season** **Uniformity**

**Location**

**MGA** 50 **779791 mE** **7463012 mN**  
**Habitat** Sandplain.  
**Soil** Red, brown sandy loam.  
**Rock** Ironstone.  
**Vegetation** Acacia pruinocarpa low open woodland over Acacia sericophylla high open shrubland over Solanum aff. sturtianum, Senna glutinosa subsp. glutinosa, Dodonaea coriacea, Acacia tetragonophylla shrubland over Acacia ancistrocarpa, Dodonaea petiolaris, Solanum lasiophyllum, Sida cardiophylla, Corchorus sidoides low shrubland over Triodia lanigera open hummock grassland over Aristida inaequiglumis, Cenchrus ciliaris tussock grassland over Bonamia rosea scattered herbs.  
**Veg** Poor. Area disturbed by weeds, ripping and previous clearing.  
**Fire** Very old.  
**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	8%	0.6m	YB06.01	
	Acacia dictyophleba	1%	0.3m	YB05.14	
	Acacia pruinocarpa	10%	5.5m	YB26.20	
	Acacia sericophylla	2%	2.3m	YB51.14	
	Acacia tetragonophylla	2%	1.8m	YB19.08	
	Anthobolus leptomerioides	+	1.3m	YB54.07	
	Aristida inaequiglumis	40%	1.0m	YB53.32	
	Bonamia rosea	1%	0.3m	YB06.04	
	Cenchrus ciliaris	2%	0.4m	YB01.14	
	Corchorus sidoides	2%	0.3m	YB54.22	
	Dodonaea coriacea	3%	1.0m	YB54.16	
	Dodonaea petiolaris	2%	0.8m	YB42.22	
	Duperreya commixta	+	CR	YB01.03	
	Eremophila cuneifolia	+	1.2m	YB54.18	
	Maireana villosa	+	0.4m	YB19.03	
	Psydrax latifolia	3%	1.4m	YB31.26	
	Scaevola parvifolia subsp. pilbarae	4%	0.4m	YB06.10	
	Senna glutinosa subsp. glutinosa	3%	1.2m	YB52.18	
	Sida cardiophylla	1%	0.9m	YB45.13	
	Sida cardiophylla	2%	0.3m	YB54.21	
	Solanum aff. sturtianum	3%	1.4m	YB54.23	
	Solanum lasiophyllum	2%	0.6m	YB02.32	
	Tephrosia aff. supina (MET 12,357)	+	0.1m	YB44.16	
	Triodia lanigera	30%	0.8m	YB54.15	

<b>Site</b>	YB55		
<b>Described Season</b>	RM	<b>Date</b>	4/20/2008
		<b>Type</b>	Q
			25 x 100m
		<b>Uniformity</b>	
<b>Location</b>			
<b>MGA</b>	50	778629	mE
			7464668 mN
<b>Habitat</b>	Sandplain.		
<b>Soil</b>	Red, brown sand (disturbed).		
<b>Rock</b>			
<b>Vegetation</b>	Acacia aff. aneura (narrow fine veined; site 1259) high shrubland over Senna artemisioides subsp. oligophylla x helmsii open shrubland over, Eremophila lanceolata, Acacia aneura var. conifera, Senna artemisioides subsp. helmsii, Maireana villosa low open shrubland over Dactyloctenium radulans very open tussock grassland over Ptilotus gomphrenoides var. gomphrenoides, Ipomoea muelleri, Tribulus cistoides, Portulaca oleracea very open herbland.		
<b>Veg</b>	Very poor. Area disturbed by partial clearing and ripping. Very little understorey.		
<b>Fire</b>	Very old.		
<b>Notes</b>			

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	+	0.2m	YB55.17	
	Acacia aff. aneura (narrow fine veined; site 1259)	25%	3.2m	YB55.16	
	Acacia aneura var. conifera	1%	0.9m	YB55.24	
	Acacia synchronicia	+	0.7m	YB01.08	
	Boerhavia repleta	+	<0.1m	YB23.15	
	Cenchrus ciliaris	+	0.3m	YB01.14	
	Cleome viscosa	+	0.2m	YB04.22	
	Dactyloctenium radulans	2%	0.1m	YB01.23	
	Enneapogon polyphyllus	+	0.3m	YB42.26	
	Eremophila lanceolata	2%	0.2m	YB20.23	
	Euphorbia australis (mid-green form)	+	<0.1m	YB03.18	Prostrate.
	Goodenia nuda	+	0.2m	YB25.31	
	Ipomoea muelleri	3%	<0.1m	YB04.11	
	Iseilema eremaeum	+	<0.1m	YB20.30	
	Maireana villosa	1%	1.0m	YB19.03	
	Maireana villosa	+	<0.1m	YB19.03	
	Phyllanthus maderaspatensis	+	0.2m	YB01.10	
	Portulaca oleracea	1%	<0.1m	YB04.16	Prostrate.
	Pterocaulon sphaeranthoides	+	0.3m	YB26.26	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YB28.16	
	Ptilotus gomphrenoides var. gomphrenoides	5%	0.1m	YB20.16	
	Rhynchosia minima var. australis	2%	<0.1m	YB01.12	
	Senna artemisioides subsp. helmsii	1%	0.8m	YB28.07	
	Senna artemisioides subsp. oligophylla x helmsii	2%	1.1m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	1%	<0.1m	YB32.22	Prostrate.
	Sida aff. fibulifera (HD200-6)	1%	0.1m	YB55.19	
	Tribulus cistoides	1%	<0.1m	YB24.18	Prostrate.

**Site** YB56

**Described** RM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **777803 mE** **7465809 mN**

**Habitat** Sandplain.

**Soil** Red, brown loam (disturbed).

**Rock**

**Vegetation** Acacia aneura var. conifera, Acacia tetragonophylla open scrub over Acacia synchronicia, Senna artemisioides subsp. oligophylla x helmsii, Acacia ancistrocarpa, Rhagodia eremaea, Sida aff. fibulifera (FMG 125-20), Solanum lasiophyllum low open heath over Cenchrus ciliaris open tussock grassland over Ptilotus gomphrenoides var. gomphrenoides, Aerva javanica very open hermland.

**Veg** Very poor. Area disturbed by previous clearing, metal refuse.

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	12%	0.8m	YB06.01	
	Acacia aneura var. conifera	8%	2.5m	YB56.16	
	Acacia synchronicia	60%	0.8m	YB01.08	
	Acacia tetragonophylla	35%	2.2m	YB19.08	
	Aerva javanica	1%	0.6m	YB10.07	
	Cenchrus ciliaris	12%	0.2m	YB01.14	
	Cleome viscosa	+	0.1m	YB04.22	
	Cullen leucanthum	+	0.4m	YB56.18	
	Dactyloctenium radulans	+	<0.1m	YB01.23	
	Eremophila lanceolata	+	0.1m	YB56.20	
	Gossypium australe (Burrup Peninsula form)	+	0.3m	YB10.30	
	Iseilema eremaeum	+	0.2m	YB20.30	
	Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8	+	CR	YB56.11	
	Phyllanthus maderaspatensis	+	0.1m	YB01.10	
	Ptilotus gomphrenoides var. gomphrenoides	2%	0.1m	YB20.16	
	Rhagodia eremaea	4%	0.8m	YB18.08	
	Rhynchosia minima var. australis	2%	CR	YB01.12	Prostrate.
	Senna artemisioides subsp. oligophylla x helmsii	15%	0.1m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	3%	0.1m	YB04.26	
	Solanum lasiophyllum	1%	0.8m	YB02.32	

**Site** YB57

**Described** RM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 776517 **mE** 7467651 **mN**

**Habitat** Sandplain.

**Soil** Red, brown loam (disturbed).

**Rock** Ironstone.

**Vegetation** Acacia synchronicia, Acacia tetragonophylla open scrub over Senna artemisioides subsp. oligophylla x helmsii shrubland over Sclerolaena cornishiana, Sida aff. fibulifera (HD200-6), Ipomoea muelleri, Gossypium australe (Burrup Peninsula form) low shrubland over Cenchrus ciliaris, Eragrostis xerophila, Dactyloctenium radulans open tussock grassland over Boerhavia repleta, Portulaca oleracea, Streptoglossa bubakii, Boerhavia coccinea very open herbland.

**Veg** Very poor. Area disturbed by fire, weeds metal refuse and previous clearing.

**Fire** Young.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia synchronicia	40%	2.3m	YB01.08	
	Acacia tetragonophylla	5%	3.0m	YB19.08	
	Aerva javanica	+	0.8m	YB10.07	
	Bidens bipinnata	+	<0.1m	YB57.21	
	Boerhavia coccinea	1%	0.3m	YB08.18	
	Boerhavia repleta	2%	<0.1m	YB23.15	
	Cenchrus ciliaris	10%	0.2m	YB01.14	
	Cleome viscosa	+	0.1m	YB04.22	
	Dactyloctenium radulans	1%	<0.1m	YB01.23	
	Eragrostis xerophila	2%	0.2m	YB57.20	
	Euphorbia australis (mid-green form)	+	<0.1m	YB03.18	Prostrate.
	Gossypium australe (Burrup Peninsula form)	2%	0.5m	YB10.11	
	Ipomoea muelleri	2%	CR	YB04.11	
	Portulaca oleracea	1%	<0.1m	YB04.16	
	Ptilotus gomphrenoides var. gomphrenoides	1%	<0.1m	YB20.16	
	Rhynchosia minima var. australis	4%	<0.1m	YB01.12	
	Sclerolaena cornishiana	8%	0.5m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	20%	1.0m	YB06.12	
	Sida aff. fibulifera (HD200-6)	3%	0.1m	YB57.19	
	Solanum lasiophyllum	+	0.9m	YB02.32	
	Streptoglossa bubakii	1%	<0.1m	YB57.17	



**Site** YB58

**Described** RM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m

**Location**

**MGA** 50 **mE** 774187 **mN** 7472506

**Habitat** Floodplain (mulga woodland).

**Soil** Red, brown loam.

**Rock** Ironstone.

**Vegetation** Acacia aff. aneura (narrow fine veined; site 1259), Rhagodia eremaea open scrub over Acacia synchronicia shrubland over Senna artemisioides subsp. oligophylla x helmsii, Sclerolaena cornishiana, Eremophila lanceolata, Solanum sturtianum low shrubland over Enneapogon polyphyllus, Dactyloctenium radulans, Iseilema eremaeum very open tussock grassland over Cleome viscosa, Ipomoea muelleri, Ptilotus gomphrenoides var. gomphrenoides very open herbland.

**Veg** Poor. Area affected by previous clearing, gravel heaping and cattle.

**Fire** Very old.

**Notes**

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon aff. lepidum (4)	3%		0.1m	YB58.19	
	Acacia aff. aneura (narrow fine veined; site 1259)	45%		5.0m	YB58.11	
	Acacia synchronicia	20%		1.3m	YB01.08	
	Cleome viscosa	8%		0.1m	YB04.22	
	Dactyloctenium radulans	2%		0.2m	YB01.23	
	Enneapogon polyphyllus	3%		0.2m	YB42.26	
	Eremophila lanceolata	1%		0.2m	YB58.16	
	Ipomoea muelleri	2%		0.2m	YB04.11	
	Iseilema eremaeum	2%		0.1m	YB20.30	
	Mukia maderaspatana	+		CR	YB07.23	
	Ptilotus exaltatus var. exaltatus	+		<0.1m	YB28.16	
	Ptilotus gomphrenoides var. gomphrenoides	3%		<0.1m	YB20.16	
	Rhagodia eremaea	1%		2.3m	YB18.08	
	Rhynchosia minima var. australis	1%		<0.1m	YB01.12	
	Sclerolaena cornishiana	3%		0.4m	YB11.09	
	Senna artemisioides subsp. oligophylla x helmsii	8%		0.9m	YB06.12	
	Sida aff. fibulifera (FMG 125-20)	+		0.1m	YB04.26	
	Solanum sturtianum	1%		0.3m	YB58.17	

**Site** YB59

**Described** RM **Date** 4/20/2008 **Type** Q **Uniformity** 25 x 100m  
**Season**

**Location**

**MGA** 50 774816 **mE** 7471229 **mN**

**Habitat** Large drainage - riparian.

**Soil** Dark red, brown sandy loam.

**Rock** Ironstone.

**Vegetation** Eucalyptus xerothermica low woodland over Acacia citrinoviridis, Acacia sclerosperma subsp. sclerosperma, Acacia synchronicia, Acacia tetragonophylla, Acacia aff. aneura (narrow fine veined; site 1259), Acacia pruinocarpa open scrub over Senna artemisioides subsp. oligophylla x helmsii open shrubland over Maireana villosa low open shrubland over Cenchrus ciliaris, Eragrostis tenellula, Iseilema eremaum, Dactyloctenium radulans open tussock grassland over Cleome viscosa, Malvastrum americanum, Streptoglossa bubakii very open herbland.

**Veg** Poor. Area disturbed by cattle grazing, soil heaping and railway refuse.

**Fire** Moderate.

**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Abutilon aff. lepidum (1) (MET 15 352)	2%	0.1m	YB59.22a	
	Acacia aff. aneura (narrow fine veined; site 1259)	5%	2.5m	YB59.21	
	Acacia citrinoviridis	25%	3.0m	YB01.02	
	Acacia pruinocarpa	1%	2.5m	YB26.20	
	Acacia sclerosperma subsp. sclerosperma	20%	2.5m	YB59.01	
	Acacia synchronicia	15%	4.0m	YB01.08	
	Acacia tetragonophylla	10%	2.5m	YB19.08	
	Cenchrus ciliaris	16%	0.1m	YB01.14	
	Cleome viscosa	5%	<0.1m	YB04.22	
	Dactyloctenium radulans	1%	<0.1m	YB01.23	
	Dichanthium sericeum subsp. humilium	+	0.2m	YB51.26	
	Eragrostis tenellula	4%	0.1m	YB01.16	
	Eucalyptus xerothermica	18%	8.0m	YB59.07	
	Ipomoea muelleri	+	0.1m	YB04.11	
	Iseilema eremaum	1%	0.1m	YB20.30	
	Maireana villosa	2%	0.4m	YB19.03	
	Malvastrum americanum	1%	0.1m	YB59.22b	
	Mukia maderaspatana	+	CR	YB07.23	
	Phyllanthus maderaspatensis	+	0.1m	YB01.10	
	Portulaca oleracea	+	<0.1m	YB04.16	Prostrate.
	Rostellularia adscendens subsp. adscendens var. latifolia	+	0.1m	YB59.15	
	Senna artemisioides subsp. oligophylla x helmsii	2%	1.5m	YB06.12	
	Streptoglossa bubakii	1%	0.2m	YB59.20	

**Site** YAR01

**Described** TE **Date** 4/16/2008 **Type** R  
**Season** **Uniformity**

**Location** Repeater 6.

**MGA** 50 729789 **mE** 7502628 **mN**

**Habitat** Low sand dune rise.

**Soil** Red, brown sand.

**Rock** Ferrous rock.

**Vegetation** Atalaya hemiglauca high open shrubland over Crotalaria cunninghamii low scattered shrubs over Cenchrus ciliaris tussock grassland over Trianthema pilosa scattered herbs.

**Veg** Poor. Area disturbed by weeds and cattle.

**Fire** Moderate.

**Notes** Bare ground: 20%.  
 Litter cover: Logs: +. Twigs: 1%. Lvs: +.  
 A number of Hakea sp. and Acacia synchronicia were dead.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Aristida holathera var. holathera	+	0.3m	YA04.04	
	Atalaya hemiglauca	5%	4.0m	YA09.03	
	Cenchrus ciliaris	40%	0.5m	YA01.31	
	Corchorus tectus	+	<0.2m	YA01.04	
	Crotalaria cunninghamii	1%	0.6m	YAR01.02	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.5m	YA01.06	
	Eriachne gardneri	+	<0.3m	YAR01.01	
	Sida cardiophylla	+	0.2m	YAR01.03	
	Trianthema pilosa	1%	<0.1m	YA01.35	
	Tribulus angustifolius	+	<0.1m	YA02.02	
	Tribulus occidentalis	+	<0.1m	YA15.06	

**Site** YAR02

**Described** TE **Date** 4/17/2008 **Type** R **200m**

**Season** **Uniformity**

**Location** Chainage 291.

**MGA** 50 **733206 mE** **7500059 mN**

**Habitat** Drainage line vegetation.

**Soil** Red, brown loamy clay with stones, cobbles and pebbles. High clay content.

**Rock** Ferrous rock and silicate.

**Vegetation** Acacia citrinoviridis, Cullen leucanthum, Acacia sclerosperma subsp. sclerosperma high shrubland over Cenchrus ciliaris, Chloris pectinata very open grassland over Aerva javanica very open hermland.

**Veg** Very poor. Most of the plot is degraded and has been graded in the past. The area is also affected by cattle.

**Fire** Moderate.

**Notes** Bare ground: 70%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	+	0.8m	YAR02.04	
	Acacia citrinoviridis	5%	2.0-2.5m	YAR02.03	
	Acacia sclerosperma subsp. sclerosperma	2%	2.0-3.0m	YA02.22	
	Acacia synchronicia	+	0.6m	YA05.15	
	Aerva javanica	3%	0.6m	YA08.01	
	Aristida inaequiglumis	+	0.6m	YA01.10	
	Cenchrus ciliaris	5%	0.5m	YA01.31	
	Chloris pectinata	1%	0.1m	YA07.06	
	Corchorus tectus	+	0.4m	YA01.04	
	Cullen leucanthum	5%	2.0-3.0m	YAR02.01	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Duperreya commixta	+	CL	YA67.15	
	Eulalia aurea	+	0.5m	YA01.28	
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Euphorbia coghlanii	+	0.2m	YA11.04	
	Euphorbia sp. (site 1089)	+	<0.1m	YAR02.02	
	Indigofera colutea	+	0.2m	YA13.05	
	Indigofera linnaei	+	0.1m	YAR02.05	
	Ipomoea muelleri	+	CL	YA13.08	
	Pterocaulon sphaeranthoides	+	0.1m	NC	
	Ptilotus astrolasius var. astrolasius	+	0.1m	YA01.24	
	Rhynchosia minima var. australis	+	CL	YA05.07	
	Salsola tragus	+	0.1m	YA12.20	
	Sporobolus australasicus	+	<0.1m	YA02.06	

**Site** YAR03

**Described** TE **Date** 4/19/2008 **Type** R

**Season** **Uniformity**

**Location** Opposite Repeater 7 (Chainage 322.75).

**MGA** 50 760803 **mE** 7484529 **mN**

**Habitat** Low rise.

**Soil** Red, brown sandy loam with a few pebbles.

**Rock** Granite, silicate and calcrete.

**Vegetation** Eucalyptus gamophylla open mallee woodland over Acacia sclerosperma subsp. sclerosperma, Acacia dictyophleba high open shrubland over Petalostylis labicheoides open shrubland over Triodia pungens, Triodia basedowii hummock grassland.

**Veg** Good. Area disturbed by cows and infrastructure.

**Fire** Moderate to old.

**Notes** Aspect: Slightly North.  
Bare ground: 40%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia bivenosa	+	0.3m	YA47.01	
	Acacia dictyophleba	1%	2.0-3.0m	YA04.03	
	Acacia pachyacra	+	1.0m	YAR03.03	
	Acacia pruinocarpa	+	0.3m	YA04.01	
	Acacia sclerosperma subsp. sclerosperma	4%	2.0m	YA54.01	
	Acacia synchronicia	+	1.5m	YA62.15	
	Cenchrus ciliaris	+	<0.2m	YA01.31	
	Corymbia hamersleyana	+	3.0m	YA24.03	VC (OP).
	Cymbopogon obtectus	+	0.5m	YAR03.04	
	Enneapogon caerulescens var. caerulescens	+	<0.1m	YAR03.05	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.4m	YA01.06	
	Eucalyptus gamophylla	6%	2.0-3.0m	YAR03.02	
	Hakea lorea subsp. lorea	+	1.0-5.0m	YA03.12	
	Petalostylis labicheoides	2%	1.0m	YAOP11.01	
	Rhagodia eremaea	+	0.6m	YA05.08	
	Salsola tragus	+	<0.3m	YA12.20	
	Senna artemisioides subsp. oligophylla	+	1.5m	YA11.06	
	Triodia basedowii	1%	0.6m	YAR03.06	
	Triodia pungens	60%	0.5m	YAR03.01	

VC: Recorded within the vegetation community.  
OP: Out of plot.

<b>Site</b>	YAR05		
<b>Described Season</b>	TE	<b>Date</b>	4/19/2008 <b>Type</b> R
		<b>Uniformity</b>	
<b>Location</b>	Chainage 333.5		
<b>MGA</b>	50	769755 <b>mE</b>	7478651 <b>mN</b>
<b>Habitat</b>	Drainage line.		
<b>Soil</b>	Red, brown alluvial soil with exposed silicate.		
<b>Rock</b>	Ferrous rock and silicate.		
<b>Vegetation</b>	Acacia citrinoviridis, Acacia aff. aneura (narrow fine veined; site 1259) low woodland over Acacia tetragonophylla, Acacia synchronicia, Eremophila longifolia, Atalaya hemiglauca high open shrubland over Cenchrus ciliaris tussock grassland.		
<b>Veg</b>	Very poor to poor. Area affected by infrastructure (railway bridge and access track) and		
<b>Fire</b>			
<b>Notes</b>	Bare ground: 60%. Litter cover: Logs: 1%. Twigs: +. Lvs: 2%.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen</b>	<b>Notes</b>
	Acacia aff. aneura (narrow fine veined; site 1259)	4%	6.0m	YA64.03	
	Acacia ancistrocarpa	+	2.0m	YA33.01	
	Acacia citrinoviridis	20%	8.0m	YAR05.01	
	Acacia sclerosperma subsp. sclerosperma	+	2.0m	YA54.01	
	Acacia synchronicia	2%	3.0m	YA50.04	
	Acacia tetragonophylla	2%	3.0m	YA70.03	
	Amyema fitzgeraldii	+	0.4m	YAOP05TE	
	Atalaya hemiglauca	1%	6.0m	YA09.03	
	Cenchrus ciliaris	35%	0.4m	YA01.31	
	Cleome viscosa	+	<0.2m	YA01.18	
	Duperreya commixta	+	CL	YA67.15	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eremophila longifolia	1%	3.0m	YAR05.02	
	Iseilema eremaum	+	<0.1m	YA07.04	
	Maireana triptera	+	0.2m	YA62.04	
	Malvastrum americanum	+	0.2m	NC	
	Pterocaulon sphaeranthoides	+	0.1m	NC	
	Ptilotus obovatus var. obovatus	+	1.0m	YA50.03	
	Rhagodia eremaea	+	1.0m	YA05.08	
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	+	1.0m	YA64.04	
	Senna artemisioides subsp. oligophylla	+	1.0m	YA11.06	
	Senna artemisioides subsp. oligophylla x helmsii	+	1.0m	YA26.12	
	Sporobolus australasicus	+	<0.1m	YA02.06	
	Trichodesma zeylanicum var. zeylanicum	+	0.1m	YA01.34	



**Site** YAR06  
**Described** TE **Date** 4/20/2008 **Type** R  
**Season** **Uniformity**  
**Location** Near Chainage 332.  
**MGA** 50 768053 **mE** 7479689 **mN**  
**Habitat** Degraded drainage culvert.  
**Soil** Red, brown alluvial loam with scattered cobbles and pebbles.  
**Rock** Ferrous rock and silicate.  
**Vegetation** Cenchrus ciliaris closed tussock grassland.  
**Veg** Very poor to completely degraded. Area previously graded. Grassland of Cenchrus ciliaris.  
**Fire** Moderate.  
**Notes**

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia aff. aneura (narrow fine veined; site 1259)	+	1.0m	YA70.08
	Acacia ancistrocarpa	+	2.0m	YA01.19
	Acacia citrinoviridis	+	<0.1m	YA28.14
	Acacia pruinocarpa	+	1.0m	YA04.01
	Acacia sclerosperma subsp. sclerosperma	+	0.5m	YA61.03
	Acacia synchronicia	+	0.5m	YA50.04
	Aristida inaequiglumis	+	0.5m	YA01.10
	Cenchrus ciliaris	75%	0.5m	YA01.31
	Cleome viscosa	+	<0.1m	YA01.18
	Dactyloctenium radulans	+	<0.1m	YA02.10
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13
	Maireana triptera	+	0.2m	YA62.04
	Malvastrum americanum	+	0.1m	YAOP1
	Portulaca oleracea	+	<0.1m	YA01.14
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32
	Senna artemisioides subsp. oligophylla x helmsii	+	1.0m	YA26.12
	Senna notabilis	+	0.3m	YA01.08
	Sesbania cannabina	+	0.3m	YAOP06TE
	Sida cardiophylla	+	0.3m	YAR06.01
	Solanum lasiophyllum	+	0.5m	YA01.26
	Sporobolus australasicus	+	<0.1m	YA02.06
	Streptoglossa bubakii	+	0.1m	YA30.03

**Site** YAR07

**Described** TE **Date** 4/21/2008 **Type** R

**Season** **Uniformity**

**Location** Chainage 303.

**MGA** 50 743926 **mE** 7494630 **mN**

**Habitat** Drainage line.

**Soil** Red, brown gravel/rocky river bed covered with cobbles, pebbles and some boulders (silicate and calcrete).

**Rock** Ferrous rock, chert and silicate.

**Vegetation** Acacia marramamba, Acacia dictyophleba high shrubland over Tephrosia rosea var. glabrior low scattered shrubs over Triodia pungens very open hummock grassland over Cenchrus ciliaris tussock grassland.

**Veg** Poor. Area disturbed by cattle, weeds and infrastructure.

**Fire** Moderate.

**Notes** Aspect: North-east.  
Bare ground: 60%.  
Litter cover: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia dictyophleba	4%	2.0m	YA04.03	
	Acacia marramamba	10%	2.0-3.0m	D17	
	Aerva javanica	+	1.0m	YA08.01	
	Atalaya hemiglauca	+	1.0m	YA09.03	
	Boerhavia coccinea	+	<0.1m	YA15.07	
	Cenchrus ciliaris	70%	0.5m	YA01.31	
	Euphorbia coghlanii	+	<0.1m	YA11.04	
	Indigofera colutea	+	0.4m	YA13.05	
	Indigofera linifolia	+	0.1m	YA11.05	
	Indigofera monophylla (brown calyx form)	+	0.4m	YA01.05	
	Rhynchosia minima var. australis	+	CL	YA05.07	
	Senna notabilis	+	0.5m	YA01.08	
	Tephrosia rosea var. glabrior	1%	<0.5m	YAR07.02	
	Triodia pungens	10%	0.6m	YAR07.01	
	Waltheria indica	+	0.5m	YAR07.03	

**Site** YAR09

**Described** TE **Date** 4/22/2008 **Type** R

**Season** **Uniformity**

**Location** Chainage 283.5.

**MGA** 50 727046 **mE** 7504392 **mN**

**Habitat** Drainage line.

**Soil** Cracked red, brown clayey loam.

**Rock** Ferrous rock and silicate.

**Vegetation** Eucalyptus xerothermica, Acacia aneura var. pilbarana low open woodland over Acacia ancistrocarpa, Acacia tumida var. pilbarensis shrubland over Cenchrus ciliaris, Eulalia aurea tussock grassland over Cleome viscosa scattered grasses.

**Veg** Poor. Area disturbed by cattle, weeds and infrastructure.

**Fire** Moderate.

**Notes** Aspect: North-east.  
Bare ground: 60%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	10%	2.0m	YA01.19	
	Acacia aneura var. pilbarana	1%	6.0m	YA04.08	
	Acacia pruinocarpa	+	0.3m	YA04.01	
	Acacia tumida var. pilbarensis	1%	2.0m	YAR09.01	
	Cenchrus ciliaris	40%	0.5m	YA01.31	
	Cleome viscosa	1%	0.2m	YA01.18	
	Duperreya commixta	+	CL	YA67.15	
	Eucalyptus xerothermica	1%	5.0m	YAR15.01	
	Eulalia aurea	3%	0.5m	YA01.28	
	Senna glutinosa subsp. glutinosa	+	1.0m	YA43.07	

**Site** YAR10

**Described** TE **Date** 4/8/2022 **Type** R

**Season** **Uniformity**

**Location** Near Chainage 287.

**MGA** 50 **730003 mE** **7502760 mN**

**Habitat** Drainage line.

**Soil** Red, brown clayey loam with large boulders of silicate.

**Rock** Ferrous rock and silicate.

**Vegetation** Eucalyptus xerothermica , Acacia aneura var. aneura, Acacia citrinoviridis low woodland over Vachellia farnesiana, Acacia ancistrocarpa open shrubland over Cenchrus ciliaris very open tussock grassland.

**Veg** Poor. Area affected by weeds, cattle and infrastructure.

**Fire** Moderate to old.

**Notes** Bare ground: 80%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	1%	1.0m	YA01.19	
	Acacia aneura var. aneura	5%	6.0m	YA04.08	
	Acacia citrinoviridis	5%	6.0m	YAR05.01	
	Cenchrus ciliaris	10%	0.5m	YA01.31	
	Dactyloctenium radulans	+	<0.1m	YA02.10	
	Eucalyptus xerothermica	2%	6.0m	YAR15.01	
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Ipomoea muelleri	+	CL	YA13.08	
	Iseilema eremaeum	+	<0.1m	YA07.04	
	Rhynchosia minima var. australis	+	CL	YA05.07	
	Vachellia farnesiana	3%	1.0-2.0m	YA05.06	

**Site** YAR11

**Described** TE **Date** 4/22/2008 **Type** R

**Season** **Uniformity**

**Location** Chainage 293.4.

**MGA** 50 735351 **mE** 7498767 **mN**

**Habitat** Drainage line.

**Soil** Red, brown loamy clay with cobbles and pebbles.

**Rock** Ferrous rock and silicate.

**Vegetation** Eucalyptus victrix, Acacia pruinocarpa, Corymbia opaca low open woodland over Acacia pruinocarpa, Acacia synchronicia, Acacia marramamba, Acacia citrinoviridis high open shrubland over Cenchrus ciliaris tussock grassland over Aerva javanica very open herbland.

**Veg** Poor. Area disturbed by cattle, weeds and infrastructure.

**Fire** Moderate.

**Notes** Aspect: North-east.  
Bare ground: 20%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia citrinoviridis	1%	3.0m	YAR11.02	
	Acacia marramamba	1%	2.0m	D17	
	Acacia marramamba	+	1.0m	D17	
	Acacia pruinocarpa	2%	2.0-8.0m	YA04.01	
	Acacia synchronicia	1%	2.0m	YA50.04	
	Aerva javanica	2%	1.0m	YA08.01	
	Cenchrus ciliaris	60%	0.5m	YA01.31	
	Cleome viscosa	+	0.4m	YA01.18	
	Corchorus tectus	+	0.4m	YA01.04	
	Corymbia opaca	2%	8.0m	YAR11.01	
	Eucalyptus victrix	2%	8.0m	YAR11.05	
	Eucalyptus victrix	1%	8.0m	YAR11.06	VC (OP).
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13	
	Phyllanthus maderaspatensis	+	<0.1m	YAR11.03	
	Rhynchosia minima var. australis	+	CL	YA05.07	
	Waltheria indica	+	<0.1m	YAR11.04	

**Site** YAR12

**Described** TE **Date** 4/23/2008 **Type** R

**Season** **Uniformity**

**Location** Chainage 308.5 (opposite cleared area).

**MGA** 50 748756 **mE** 7492438 **mN**

**Habitat** Plain with low shrubland between Mulga bands.

**Soil** Red, brown loamy clay.

**Rock** Ferrous rock.

**Vegetation** Acacia ancistrocarpa, Acacia pruinocarpa high shrubland over Triodia pungens scattered hummock grasses over Cenchrus ciliaris, Aristida inaequiglumis open tussock grassland.

**Veg** Poor. Area affected by cattle, weeds and cattle. Plot has been graded in the past.

**Fire** Moderate to old.

**Notes** Bare ground: 60%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	10%	2.0-3.0m	YAR12.02	
	Acacia inaequilatera	+	1.5m	YA01.25	
	Acacia pruinocarpa	1%	2.0m	YA04.01	
	Anthobolus leptomerioides	+	2.0m	YA42.08	
	Aristida inaequiglumis	6%	0.5m	YA01.10	
	Cenchrus ciliaris	20%	0.5m	YA01.31	
	Cleome viscosa	+	0.3m	YA01.18	
	Corchorus sidoides	+	0.2m	YA04.02	
	Corchorus tectus	+	0.4m	YA01.04	
	Corymbia semiclara	+	6.0m	YA01.27	
	Enneapogon polyphyllus	+	<0.1m	YA50.08	
	Eragrostis aff. eriopoda (WAS site 963)	+	0.4m	YA01.06	
	Eremophila longifolia	+	2.0m	YAOP02.1	
	Indigofera monophylla (brown calyx form)	+	0.4m	YA01.05	
	Phyllanthus erwinii	+	CL	YA26.04	
	Ptilotus calostachyus var. calostachyus	+	0.3m	YAMOP07TE	
	Ptilotus exaltatus var. exaltatus	+	<0.1m	YA01.32	
	Sclerolaena cornishiana	+	0.5m	YA64.01	
	Senna glutinosa subsp. x luerssenii	+	2.0m	YAR12.01	
	Senna notabilis	+	0.3m	YA01.08	
	Solanum lasiophyllum	+	0.1m	YA01.26	
	Trichodesma zeylanicum var. zeylanicum	+	0.3m	YAM01.23	
	Triodia pungens	1%	0.5m	YA11.10	



**Site** YAR13

**Described** TE **Date** 4/23/2008 **Type** R

**Season** **Uniformity**

**Location** Chainage 318.

**MGA** 50 756679 **mE** 7487198 **mN**

**Habitat** Plain/drainage zone.

**Soil** Red, brown loamy clay.

**Rock** Ferrous rock.

**Vegetation** Eucalyptus xerothermica low open woodland over Acacia ancistrocarpa, Acacia pruinocarpa high shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris, Aristida inaequiglumis, Enneapogon polyphyllus tussock grassland.

**Veg** Poor to good. Area affected by cattle and infrastructure.

**Fire** Moderate.

**Notes** Aspect: North-east.  
Bare ground: 60%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen	Notes
	Acacia ancistrocarpa	20%	2.0-2.5m	YA01.19	
	Acacia aneura var. aneura	+	6.0m	YA48.12	
	Acacia inaequilatera	+	1.0m	YA01.25	
	Acacia pruinocarpa	1%	5.0m	YA04.01	
	Acacia synchronicia	+	1.0m	YA50.04	
	Aristida inaequiglumis	10%	0.5m	YA01.10	
	Cenchrus ciliaris	25%	<0.5m	YA01.31	
	Cleome viscosa	+	0.2m	YA01.18	
	Enneapogon polyphyllus	1%	<0.1m	YA50.08	
	Eucalyptus xerothermica	3%	5.0m	YAR15.01	
	Euphorbia coghlanii	+	0.1m	YA11.04	
	Senna glutinosa subsp. glutinosa	+	1.0-5.0m	YA43.07	
	Triodia pungens	5%	<0.5m	YA11.10	

**Site** YAR14

**Described** TE **Date** 4/23/2008 **Type** R

**Season** **Uniformity**

**Location** Chainage 119.

**MGA** 50 757781 **mE** 7486463 **mN**

**Habitat** Plain/drain/erosion depression.

**Soil** Alluvial loam with scattered mixed pebbles and cobbles. Eroded soils.

**Rock** Ferrous rock, alluvial and chert.

**Vegetation** Corymbia aspera low open woodland over Acacia ancistrocarpa, Acacia inaequilatera high open shrubland over Triodia pungens open hummock grassland over Aristida inaequiglumis very open tussock grassland.

**Veg** Poor to very poor. Area affected by erosion.

**Fire** Moderate.

**Notes** Bare ground: 60%.  
Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover	C	Height	Specimen	Notes
	Abutilon otocarpum	+		0.2m	YA55.12	
	Acacia ancistrocarpa	5%		2.0m	YA01.19	
	Acacia inaequilatera	2%		2.0m	YA01.25	
	Acacia pruinocarpa	+		5.0m	YA04.01	
	Aristida inaequiglumis	3%		0.5m	YA01.10	
	Cenchrus ciliaris	+		0.2m	YA01.31	
	Cleome viscosa	+		0.4m	YA01.18	
	Corchorus tectus	+		0.4m	YA01.04	
	Corymbia aspera	2%		6.0m	YAR14.02	
	Eriachne aristidea	+		<0.1m	YA01.22	
	Eucalyptus xerothermica	+		4.0m	YAR15.01	
	Mukia maderaspatana	+		CL	YA01.29	
	Pluchea dunlopia	+		0.2m	YA57.08	
	Triodia pungens	30%		0.5m	YAR14.01	

**Site** YAR15

**Described** TE **Date** 4/23/2008 **Type** R  
**Season** **Uniformity**

**Location**

**MGA** 50 762142 **mE** 7483574 **mN**

**Habitat** Plain. Possibly slight drainage line.

**Soil** Red, brown clayey loam.

**Rock** Ferrous rock.

**Vegetation** Corymbia aspera, Eucalyptus xerothermica low open woodland over Acacia ancistrocarpa, Acacia aneura var. intermedia, Acacia pruinocarpa, Atalaya hemiglauca high open shrubland over Triodia pungens very open hummock grassland over Cenchrus ciliaris very open tussock

**Veg** Good to poor. Area affected by weeds, cattle and infrastructure.

**Fire** Moderate.

**Notes** Bare ground: 80%.  
 Litter cover: Logs: +. Twigs: +. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia ancistrocarpa	6%	2.0m	YA01.19
	Acacia aneura var. intermedia	2%	3.0m	YAR15.02
	Acacia pruinocarpa	1%	4.0m	YA04.01
	Acacia sclerosperma subsp. sclerosperma	+	2.0m	YA61.03
	Acacia synchronicia	+	0.6m	YA50.04
	Atalaya hemiglauca	1%	3.0m	YA09.03
	Cenchrus ciliaris	10%	0.3m	YA01.31
	Corymbia aspera	3%	6.0-10.0m	YA33.09
	Eremophila latrobei subsp. filiformis	+	0.5m	YA62.02
	Eremophila longifolia	+	1.0-2.0m	YAOP02.1
	Eucalyptus xerothermica	3%	5.0m	YAR15.01
	Rhagodia eremaea	+	1.3m	YA05.08
	Senna artemisioides subsp. oligophylla	+	1.5m	YA11.06
	Senna artemisioides subsp. oligophylla x helmsii	+	1.0m	YA26.12
	Triodia pungens	5%	0.5m	YA11.10

<b>Site</b>	YAR16		
<b>Described Season</b>	TE	<b>Date</b>	4/23/2008 <b>Type</b> R
		<b>Uniformity</b>	
<b>Location</b>	Chainage 334.8		
<b>MGA</b>	50	770823 <b>mE</b>	7477904 <b>mN</b>
<b>Habitat</b>	Drainage line.		
<b>Soil</b>	Red, brown alluvial loam with clay in the depressions. Fluvial banks of white cobbles and pebbles.		
<b>Rock</b>	Chert.		
<b>Vegetation</b>	Eucalyptus xerothermica low open woodland over Acacia ancistrocarpa, Acacia sclerosperma subsp. sclerosperma, Acacia aneura var. intermedia, Acacia trachycarpa subsp. tumida var. pilbarensis, Acacia synchronicia high open shrubland over Triodia pungens scattered hummock grasses over Cenchrus ciliaris, Aristida inaequiglumis very open tussock grassland.		
<b>Veg</b>	Poor. Area affected by cattle, flooding and weeds.		
<b>Fire</b>	Old.		
<b>Notes</b>	Aspect: North-east. Bare ground: 80%. Litter cover: Logs: +. Twigs: +. Lvs: +.		

**SPECIES**

<b>Quad</b>	<b>Name</b>	<b>Cover C</b>	<b>Height</b>	<b>Specimen Notes</b>
	Acacia ancistrocarpa	4%	2.0m	YA01.19
	Acacia aneura var. intermedia	1%	5.0m	YAR16.02
	Acacia sclerosperma subsp. sclerosperma	2%	2.0m	YA61.03
	Acacia synchronicia	1%	2.0m	YA50.04
	Acacia tetragonophylla	+	2.0m	YA70.03
	Acacia trachycarpa subsp. tumida var. pilbarensis	1%	3.0m	YAOP17KM
	Aristida inaequiglumis	1%	0.5m	YA01.10
	Cenchrus ciliaris	3%	0.5m	YA01.31
	Cleome viscosa	+	0.4m	YA01.18
	Duperreya commixta	+	CL	YA67.15
	Eucalyptus xerothermica	1%	5.0m	YAR15.01
	Eucalyptus xerothermica	5%	5.0-8.0m	YAR16.01
	Euphorbia australis (mid-green form)	+	<0.1m	YA01.13
	Euphorbia coghlanii	+	0.1m	YA11.04
	Iseilema eremaeum	+	<0.1m	YA07.04
	Petalostylis cassioides	+	1.0m	D61
	Ptilotus obovatus var. obovatus	+	0.5m	YA50.03
	Senna artemisioides aff subsp oligophylla (thinly sericeous)	+	0.2m	
	Senna artemisioides subsp. oligophylla	+	1.0m	YA11.06
	Solanum lasiophyllum	+	0.5m	YA01.26
	Triodia pungens	1%	0.6m	YA11.10
	Yakirra australiensis var. australiensis	+	0.1m	YA01.16

**Site** YAR17

**Described** TE **Date** 4/23/2008 **Type** R

**Season** **Uniformity**

**Location** D79 (near Chainage 337.5).

**MGA** 50 772478 **mE** 7475560 **mN**

**Habitat** Drainage line.

**Soil** Red, brown alluvial loam with gravel/chert cobbles and pebbles. Cracking clay and a few chert boulders in areas of the plot.

**Rock** Chert.

**Vegetation** Eucalyptus xerothermica low open woodland over Acacia sclerosperma subsp. sclerosperma, Acacia synchronicia high open shrubland over Eulalia aurea, Cenchrus ciliaris very open tussock grassland.

**Veg** Poor. Area affected by cattle, flooding and infrastructure.

**Fire** Moderate.

**Notes** Bare ground: 80%.  
Litter cover: Logs: +. Twigs: 1%. Lvs: +.

**SPECIES**

Quad	Name	Cover C	Height	Specimen Notes
	Acacia inaequilatera	+	0.5m	YA01.25
	Acacia sclerosperma subsp. sclerosperma	5%	2.0-3.0m	YA61.03
	Acacia synchronicia	2%	2.0m	YA50.04
	Cenchrus ciliaris	1%	0.5m	YA01.31
	Duperreya commixta	+	CL	YA67.15
	Eucalyptus xerothermica	5%	3.0-5.0m	YAR16.01
	Eulalia aurea	1%	0.5m	YA01.28
	Goodenia lamprosperma	+	<0.1m	YAR17.01
	Iseilema eremaeum	+	<0.1m	YA07.04
	Maireana triptera	+	0.4m	YA62.04
	Solanum lasiophyllum	+	0.5m	YA01.26

Site OPCOLL

SPECIES

Quad	Name	Specimen	Notes
	<i>Abutilon fraseri</i>	YAOP25TE	751806E, 7490406N
	<i>Acacia citrinoviridis</i>	D34	733221E, 7500113N
	<i>Acacia colei</i> var. <i>colei</i>	YAOP10T2	771402E, 7477294N
	<i>Acacia coriacea</i> subsp. <i>pendens</i>	YAOP04	730000E, 7502749N
	<i>Acacia hilliana</i>	YBOP.09	792769E, 7420651N
	<i>Acacia marramamba</i>	D17	743927E, 7494631N
	<i>Acacia monticola</i>	YBOP.14	792851E, 7420812N
	<i>Acacia monticola</i>	YAOP14KM	762471E, 7483365N
	<i>Acacia pyrifolia</i>	YAOP08KM	735560E, 7498626N
	<i>Acacia pyrifolia</i>	D33	732751E, 7500460N
	<i>Acacia tumida</i> var. <i>pilbarensis</i>	YAOP02.2	729092E, 7503570N
	<i>Aerva javanica</i>	YBOP.07	797211E, 7434146N
	<i>Aerva javanica</i>	YBOP.05	777773E, 7465910N
	<i>Aerva javanica</i>	YBOP.31	
	<i>Amyema fitzgeraldii</i>	YAOP05TE	732938E, 7500304N
	<i>Bidens bipinnata</i>	YAOP17TE	750898E, 7490993N
	<i>Bidens bipinnata</i>	YAOP23TE	751806E, 7490406N
	<i>Cenchrus ciliaris</i>	YBOP.06	777773E, 7465910N
	<i>Chrysocephalum pterochaetum</i>	YBOP.10	792789E, 7420707N
	<i>Corchorus tectus</i>	YAOP08TEa	
	<i>Corymbia candida</i>	YBOP.22	793816E, 7422518N
	<i>Cucumis melo</i> subsp. <i>agrestis</i>	YAOP03.02	729975E, 7502768N
	<i>Cymbopogon ambiguus</i>	YAOP11T4	771207E, 7477497N
	<i>Dodonaea pachyneura</i>	YBOP.26	789945E, 7443065N
	<i>Dodonaea petiolaris</i>	YAOP12KM	757887E, 7486376N
	<i>Dodonaea petiolaris</i>	YAOP10KM	748923E, 7492308N
	<i>Eremophila exilifolia</i>	YBOP.28	789995E, 7443063N
	<i>Eremophila lanceolata</i>	YAOP05KM	727127E, 7504371N
	<i>Eremophila latrobei</i> subsp. <i>aff. filiformis</i>	YBOP.23	793845E, 7422583N
	<i>Eremophila latrobei</i> subsp. <i>aff. filiformis</i>	YBOP.08	792766E, 7420627N
	<i>Eremophila latrobei</i> subsp. <i>filiformis</i>	YAOP16TE	750898E, 7490993N
	<i>Eremophila latrobei</i> subsp. <i>glabra</i>	YBOP.11	792825E, 7420727N
	<i>Eremophila latrobei</i> subsp. <i>glabra</i>	YBOP.15	792861E, 7420825N
	<i>Eremophila longifolia</i>	YAOP02.1	729092E, 7503570N
	<i>Eremophila</i> sp. <i>Ophthalmia</i> Range (D. Brearley s.n. 20/3/2004) PN	YBOP.02	794371E, 7423430N
	<i>Eriachne mucronata</i> (typical form)	YBOP.18	792769E, 7420759N
	<i>Eucalyptus socialis</i> subsp. <i>eucentrica</i>	YAOP12TE	772965E, 7474793N
	<i>Eucalyptus xerothermica</i>	YAOP10T1	771402E, 7477294N
	<i>Fimbristylis dichotoma</i>	YAOP17KM	770852E, 7477891N.
	<i>Gomphrena cunninghamii</i>	YBOP.29	789995E, 7443063N
	<i>Goodenia nuda</i>	YAOP22TE	751039E, 7490908N
	<i>Goodenia prostrata</i>	YAOP14TE	750887E, 7490995N
	<i>Goodenia prostrata</i>	YAOP21TE	750999E, 7490939N
	<i>Goodenia prostrata</i>	YAOP26TE	751806E, 7490406N
	<i>Goodenia triodiophila</i>	YBOP.16	792847E, 7420838N
	<i>Gossypium robinsonii</i>	YAOP13TE	727127E, 7504371N
	<i>Grevillea wickhamii</i> subsp. <i>hispidula</i>	YAOP11T2	771207E, 7477497N. GP.
	<i>Heliotropium chrysocarpum</i>	YAOP09KM	748830E, 7492376N
	<i>Hibiscus burtonii</i>	YAOP20TE	750999E, 7490939N
	<i>Hybanthus aurantiacus</i>	YBOP.13	792837E, 7420795N
	<i>Hybanthus aurantiacus</i>	YBOP.01	793804E, 7422326N

<i>Hybanthus aurantiacus</i>	YBOP.19	792799E, 7420807N
<i>Hybanthus aurantiacus</i>	YBOP.16a	
<i>Jasminum didymum</i> subsp. <i>lineare</i>	YAOP13KM	762219E, 7483523N
<i>Lepidium pedicellosum</i>	YBOP.20	792766E, 7420762N
<i>Malvastrum americanum</i>	YAOP24TE	751806E, 7490406N
<i>Malvastrum americanum</i>	YAOP06KM	730057E, 7502713N
<i>Malvastrum americanum</i>	YAOP1	729118E, 7503288N
<i>Malvastrum americanum</i>	YAOP19TE	750953E, 7490970N
<i>Melaleuca glomerata</i>	YBOP.30	778058E, 7465458N
<i>Nicotiana occidentalis</i> subsp. <i>occidentalis</i>	YAOP18TE	750898E, 7490993N
<i>Perotis rara</i>	YAOP14TEa	750887E, 7490995N
<i>Petalostylis cassioides</i>	D61	761070E, 7484346N
<i>Polycarpaea longiflora</i>	YAOP11T3	771207E, 7477497N
<i>Psyrax latifolia</i>	YBOP.03	797129E, 7438070N
<i>Ptilotus macrocephalus</i>	YAOP15TE	750887E, 7490995N
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>	YAOP11KM	756890E, 7487051N
<i>Sesbania cannabina</i>	YAOP15KM	769168E, 7478953N
<i>Sesbania cannabina</i>	YAOP06TE	768934E, 7479162. OP.
<i>Sesbania cannabina</i>	YAOP06TE	737546E, 7497420N
<i>Solanum horridum</i>	YBOP.24	794347E, 7423668N
<i>Stenopetalum decipiens</i>	YBOP.12	792825E, 7420727N
<i>Stylobasium spathulatum</i>	YAOP07TE	766200E, 7480959N
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>	YBOP.25	789945E, 7443065N
<i>Tribulus occidentalis</i>	YBOP.04	777773E, 7465910N
<i>Triodia schinzii</i>	YAOP08TE	767531E, 7480094N
<i>Vachellia farnesiana</i>	YAOP03.01	729975E, 7502768N
<i>Waltheria indica</i>	YAOP16KM	770852E, 7477891N. DL.
<i>Waltheria indica</i>	YAOP07KM	735508E, 7498642N

GP: Growing in a gravel pile.

OP: Observed population (1000+).

DL: Drainage line.



# **APPENDIX H**

# **FLORA SPECIES INVENTORY**

## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX H

#### Flora Species Inventory

Family	Species Name
Acanthaceae	<i>Rostellularia adscendens</i> subsp. <i>adscendens</i> var. <i>latifolia</i>
Adiantaceae	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>
Aizoaceae	<i>Trianthema pilosa</i>
Aizoaceae	<i>Trianthema triquetra</i> var. <i>triquetra</i>
Amaranthaceae	<i>Alternanthera angustifolia</i>
	<i>Alternanthera nana</i>
	<i>Amaranthus</i> sp.
	<i>Amaranthus undulatus</i>
	<i>Gomphrena affinis</i> subsp. <i>pilbarensis</i>
	<i>Gomphrena cunninghamii</i>
	<i>Gomphrena kanisii</i>
	<i>Gomphrena</i> sp.
	<i>Ptilotus astrolasius</i> var. <i>astrolasius</i>
	<i>Ptilotus calostachyus</i> var. <i>calostachyus</i>
	<i>Ptilotus clementii</i>
	<i>Ptilotus exaltatus</i> var. <i>exaltatus</i>
	<i>Ptilotus gaudichaudii</i> var. <i>gaudichaudii</i>
	<i>Ptilotus gomphrenoides</i> var. <i>gomphrenoides</i>
	<i>Ptilotus helipteroides</i> var. <i>helipteroides</i>
	<i>Ptilotus macrocephalus</i>
	<i>Ptilotus obovatus</i> var. <i>obovatus</i>
	<i>Ptilotus polystachyus</i> var. <i>polystachyus</i>
	<i>Ptilotus rotundifolius</i>
	<i>Ptilotus schwartzii</i> var. <i>schwartzii</i>
* <i>Aerva javanica</i>	
Apiaceae	<i>Trachymene oleracea</i> subsp. <i>oleracea</i>
Asclepiadaceae	<i>Rhyncharrhena linearis</i>
Asteraceae	<i>Blumea tenella</i>
	<i>Chrysocephalum pterochaetum</i>
	<i>Flaveria australasica</i>
	<i>Pluchea dentex</i>
	<i>Pluchea dunlopii</i>
	<i>Pterocaulon sphaeranthoides</i>
	<i>Streptoglossa bubakii</i>
	<i>Streptoglossa macrocephala</i>

Family	Species Name
	<i>*Bidens bipinnata</i>
Boraginaceae	<i>Heliotropium chrysocarpum</i>
	<i>Heliotropium inexplicitum</i>
	<i>Heliotropium paniculatum</i>
	<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>
Brassicaceae	<i>Lepidium pedicellosum</i>
	<i>Stenopetalum decipiens</i>
	<i>Stenopetalum nutans</i>
Caesalpiaceae	<i>Senna glutinosa</i> subsp. <i>luerssenii</i> x <i>stricta</i>
	<i>Petalostylis cassioides</i>
	<i>Petalostylis labicheoides</i>
	<i>Senna artemisioides</i> aff. subsp. <i>oligophylla</i> (thinly sericeous)
	<i>Senna artemisioides</i> subsp. <i>helmsii</i>
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i>
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>
	<i>Senna charlesiana</i>
	<i>Senna glutinosa</i> subsp. <i>glutinosa</i>
	<i>Senna glutinosa</i> subsp. <i>luerssenii</i>
	<i>Senna glutinosa</i> subsp. <i>pruinosa</i>
	<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>
	<i>Senna notabilis</i>
	<i>Senna</i> sp.
Capparaceae	<i>Capparis lasiantha</i>
	<i>Capparis spinosa</i> var. <i>nummularia</i>
	<i>Capparis umbonata</i>
	<i>Cleome viscosa</i>
Caryophyllaceae	<i>Polycarpha longiflora</i>
Chenopodiaceae	<i>Atriplex flabelliformis</i>
	<i>Chenopodium melanocarpum</i>
	<i>Chenopodium melanocarpum</i> forma <i>melanocarpum</i>
	<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>
	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>
	<i>Maireana georgei</i>
	<i>Maireana planifolia</i>
	<i>Maireana planifolia</i> x <i>villosa</i>
	<i>Maireana tomentosa</i>
	<i>Maireana triptera</i>
	<i>Maireana villosa</i>
	<i>Rhagodia eremaea</i>
	<i>Salsola tragus</i>

Family	Species Name
	<i>Salsola tragus</i> subsp. <i>tragus</i>
	<i>Sclerolaena cornishiana</i>
	<i>Sclerolaena cuneata</i>
	<i>Sclerolaena densiflora</i>
	<i>Sclerolaena eriacantha</i>
Chloanthaceae	<i>Dicrastylis cordifolia</i>
Convolvulaceae	<i>Bonamia media</i> var. <i>villosa</i>
	<i>Bonamia rosea</i>
	<i>Convolvulus angustissimus</i> subsp. <i>angustissimus</i>
	<i>Duperreya commixta</i>
	<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>
	<i>Ipomoea muelleri</i>
Cucurbitaceae	<i>Mukia maderaspatana</i>
	* <i>Cucumis melo</i> subsp. <i>agrestis</i>
Cyperaceae	<i>Bulbostylis barbata</i>
	<i>Bulbostylis burbidgeae</i>
	<i>Fimbristylis dichotoma</i>
Euphorbiaceae	<i>Euphorbia</i> aff. <i>australis</i> var. 1 (MET 12 337)
	<i>Euphorbia australis</i> (mid-green form)
	<i>Euphorbia biconvexa</i>
	<i>Euphorbia coghlanii</i>
	<i>Euphorbia</i> sp. (FMLMC-10)
	<i>Euphorbia</i> sp. (site 1089)
	<i>Euphorbia tannensis</i> subsp. <i>eremophila</i> (Hamersley form)
	<i>Phyllanthus erwinii</i>
	<i>Phyllanthus maderaspatensis</i>
Goodeniaceae	<i>Dampiera candicans</i>
	<i>Goodenia lamprosperma</i>
	<i>Goodenia microptera</i>
	<i>Goodenia nuda</i>
	<i>Goodenia prostrata</i>
	<i>Goodenia</i> sp.
	<i>Goodenia</i> sp. Sandy Creek (R.D. Royce 1653)
	<i>Goodenia stobbsiana</i>
	<i>Goodenia triodiophila</i>
	<i>Scaevola acacioides</i>
	<i>Scaevola parvifolia</i> subsp. <i>pilbarae</i>
	<i>Scaevola spinescens</i>
	<i>Scaevola spinescens</i> (broad form)
	Haloragaceae
Loranthaceae	<i>Amyema fitzgeraldii</i>

Family	Species Name
	<i>Amyema preissii</i>
Malvaceae	<i>Abutilon</i> aff. <i>lepidum</i> (1) (MET 15 352)
	<i>Abutilon</i> aff. <i>lepidum</i> (4)
	<i>Abutilon fraseri</i>
	<i>Abutilon lepidum</i>
	<i>Abutilon leucopetalum</i>
	<i>Abutilon macrum</i>
	<i>Abutilon otocarpum</i>
	<i>Abutilon oxycarpum</i> subsp. <i>prostratum</i>
	<i>Abutilon trudgenii</i>
	<i>Gossypium australe</i> (Burrup Peninsula form)
	<i>Gossypium robinsonii</i>
	<i>Hibiscus</i> aff. <i>coatesii</i>
	<i>Hibiscus</i> aff. <i>coatesii</i> (site 693)
	<i>Hibiscus</i> aff. <i>platyklamys</i> (site 1139)
	<i>Hibiscus brachychlaenus</i>
	<i>Hibiscus burtonii</i>
	<i>Hibiscus leptocladus</i>
	<i>Hibiscus platyklamys</i>
	<i>Hibiscus sturtii</i> var. aff. <i>grandiflorus</i>
	<i>Hibiscus sturtii</i> var. aff. <i>truncatus</i> (site 1 016)
	<i>Hibiscus sturtii</i> var. <i>grandiflorus</i>
	<i>Hibiscus sturtii</i> var. <i>platyklamys</i>
	<i>Hibiscus sturtii</i> var. <i>truncatus</i>
	<i>Malvastrum</i> sp.
	<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)
	<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)
	<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)
	<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)
	<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)
	<i>Sida arenicola</i>
	<i>Sida arsiniata</i>
	<i>Sida cardiophylla</i>
	<i>Sida echinocarpa</i>
	<i>Sida pilbarensis</i> (ferruginous form)
	<i>Sida platycalyx</i>
	<i>Sida</i> sp.
	<i>Sida</i> sp. <i>spiciform panicles</i> (E. Leyland s.n. 14/8/90)
	* <i>Malvastrum americanum</i>
Marsileaceae	<i>Marsilea hirsuta</i>
Mimosaceae	<i>Acacia adoxa</i> var. <i>adoxo</i>

Family	Species Name
	<i>Acacia adsurgens</i>
	<i>Acacia</i> aff. <i>aneura</i> (narrow fine veined; site 1259)
	<i>Acacia ancistrocarpa</i>
	<i>Acacia aneura</i>
	<i>Acacia aneura</i> var. <i>aneura</i>
	<i>Acacia aneura</i> var. <i>conifera</i>
	<i>Acacia aneura</i> var. <i>intermedia</i>
	<i>Acacia aneura</i> var. <i>pilbarana</i>
	<i>Acacia arida</i>
	<i>Acacia bivenosa</i>
	<i>Acacia citrinoviridis</i>
	<i>Acacia colei</i> var. <i>colei</i>
	<i>Acacia coriacea</i> subsp. <i>pendens</i>
	<i>Acacia dictyophleba</i>
	<i>Acacia hilliana</i>
	<i>Acacia inaequilatera</i>
	<i>Acacia ligulata</i>
	<i>Acacia maitlandii</i>
	<i>Acacia marramamba</i>
	<i>Acacia monticola</i>
	<i>Acacia pachyacra</i>
	<i>Acacia paraneura</i>
	<i>Acacia pruinocarpa</i>
	<i>Acacia pyrifolia</i>
	<i>Acacia rhodophloia</i>
	<i>Acacia sclerosperma</i>
	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>
	<i>Acacia sericophylla</i>
	<i>Acacia stowardii</i> (linear form)
	<i>Acacia synchronicia</i>
	<i>Acacia tetragonophylla</i>
	<i>Acacia trachycarpa</i> subsp. <i>tumida</i> var. <i>pilbarensis</i>
	<i>Acacia trudgeniana</i>
	<i>Acacia tumida</i> var. <i>pilbarensis</i>
	<i>Acacia victoriae</i>
	<i>Acacia wanyu</i>
	<i>Acacia xiphophylla</i>
	<i>Neptunia dimorphantha</i>
	* <i>Vachellia farnesiana</i>
Myoporaceae	<i>Eremophila cuneifolia</i>
	<i>Eremophila exilifolia</i>

Family	Species Name
	<i>Eremophila forrestii</i> subsp. <i>forrestii</i>
	<i>Eremophila lanceolata</i>
	<i>Eremophila latrobei</i> subsp. aff. <i>filiformis</i>
	<i>Eremophila latrobei</i> subsp. <i>filiformis</i>
	<i>Eremophila latrobei</i> subsp. <i>glabra</i>
	<i>Eremophila longifolia</i>
	<i>Eremophila</i> sp.
	<i>Eremophila</i> sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)
Myrtaceae	<i>Calytrix carinata</i>
	<i>Corymbia</i> aff. <i>opaca</i>
	<i>Corymbia aspera</i>
	<i>Corymbia candida</i>
	<i>Corymbia deserticola</i> subsp. <i>deserticola</i>
	<i>Corymbia hamersleyana</i>
	<i>Corymbia opaca</i>
	<i>Corymbia semiclara</i>
	<i>Eucalyptus gamophylla</i>
	<i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i>
	<i>Eucalyptus socialis</i> subsp. <i>eucentrica</i>
	<i>Eucalyptus trivalvis</i>
	<i>Eucalyptus victrix</i>
	<i>Eucalyptus xerothermica</i>
	<i>Melaleuca glomerata</i>
Nyctaginaceae	<i>Boerhavia coccinea</i>
	<i>Boerhavia repleta</i>
	<i>Boerhavia</i> sp.
Oleaceae	<i>Jasminum didymum</i> subsp. <i>lineare</i>
Papilionaceae	<i>Alysicarpus muelleri</i>
	<i>Crotalaria medicaginea</i>
	<i>Cullen</i> aff. <i>lachnostachys</i> (MET 15,154)
	<i>Cullen lachnostachys</i>
	<i>Cullen leucanthum</i>
	<i>Cullen leucochaites</i>
	<i>Cullen martinii</i>
	<i>Glycine canescens</i>
	<i>Gompholobium karijini</i>
	<i>Indigofera colutea</i>
	<i>Indigofera georgei</i>
	<i>Indigofera linifolia</i>
	<i>Indigofera linnaei</i>
	<i>Indigofera monophylla</i> (brown calyx form)



Family	Species Name
	<i>Indigofera monophylla</i> (FMR35-01)
	<i>Isotropis atropurpurea</i>
	<i>Kennedia prorepens</i>
	<i>Rhynchosia minima</i> var. <i>australis</i>
	<i>Sesbania cannabina</i>
	<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)
	<i>Tephrosia rosea</i> var. <i>glabrior</i>
Poaceae	<i>Aristida contorta</i>
	<i>Aristida holathera</i> var. <i>holathera</i>
	<i>Aristida holathera</i> var. <i>latifolia</i>
	<i>Aristida inaequiglumis</i>
	<i>Aristida ingrata</i>
	<i>Aristida latifolia</i>
	<i>Aristida</i> sp.
	<i>Bothriochloa bladhii</i>
	<i>Chloris pectinata</i>
	<i>Chloris pumilio</i>
	<i>Chrysopogon fallax</i>
	<i>Cymbopogon ambiguus</i>
	<i>Cymbopogon obtectus</i>
	<i>Cymbopogon procerus</i>
	<i>Dactyloctenium radulans</i>
	<i>Dichanthium sericeum</i> subsp. <i>humilius</i>
	<i>Digitaria ctenantha</i>
	<i>Diplachne fusca</i> subsp. <i>fusca</i>
	<i>Enneapogon caerulescens</i> var. <i>caerulescens</i>
	<i>Enneapogon intermedius</i>
	<i>Enneapogon polyphyllus</i>
	<i>Enneapogon robustissimus</i>
	<i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963)
	<i>Eragrostis cumingii</i>
	<i>Eragrostis eriopoda</i>
	<i>Eragrostis falcata</i>
	<i>Eragrostis leptocarpa</i>
	<i>Eragrostis</i> sp.
	<i>Eragrostis tenellula</i>
	<i>Eragrostis xerophila</i>
	<i>Eriachne aristidea</i>
	<i>Eriachne lanata</i>
	<i>Eriachne mucronata</i> (arid form) (MET 12 736)
	<i>Eriachne mucronata</i> (typical form)

Family	Species Name
	<i>Eriachne tenuiculmis</i>
	<i>Eulalia aurea</i>
	<i>Iseilema dolichotrichum</i>
	<i>Iseilema eremaeum</i>
	<i>Paraneurachne muelleri</i>
	<i>Paspalidium clementii</i>
	<i>Paspalidium constrictum</i>
	<i>Paspalidium rarum</i>
	<i>Perotis rara</i>
	<i>Schizachyrium fragile</i>
	<i>Sporobolus australasicus</i>
	<i>Themeda triandra</i>
	<i>Tragus australianus</i>
	<i>Triodia angusta</i>
	<i>Triodia basedowii</i>
	<i>Triodia epactia</i>
	<i>Triodia lanigera</i>
	<i>Triodia longiceps</i>
	<i>Triodia pungens</i>
	<i>Triodia schinzii</i>
	<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)
	<i>Triodia wiseana</i>
	<i>Yakirra australiensis</i> var. <i>australiensis</i>
	* <i>Cenchrus ciliaris</i>
	* <i>Cenchrus setiger</i>
	* <i>Chloris virgata</i>
	* <i>Cynodon dactylon</i>
	* <i>Setaria verticillata</i>
Portulacaceae	<i>Calandrinia Ptychosperma</i>
	<i>Portulaca conspicua</i>
	* <i>Portulaca oleracea</i>
Proteaceae	<i>Grevillea striata</i>
	<i>Grevillea wickhamii</i> subsp. <i>hispidula</i>
	<i>Hakea chordophylla</i>
	<i>Hakea lorea</i> subsp. <i>lorea</i>
Rubiaceae	<i>Psydrax latifolia</i>
Santalaceae	<i>Anthobolus leptomerioides</i>
Sapindaceae	<i>Atalaya hemiglauca</i>
	<i>Dodonaea coriacea</i>
	<i>Dodonaea pachyneura</i>
	<i>Dodonaea petiolaris</i>

Family	Species Name
Scrophulariaceae	<i>Peplidium</i> sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8)
	<i>Stemodia grossa</i>
Solanaceae	<i>Nicotiana benthamiana</i>
	<i>Nicotiana occidentalis</i> subsp. <i>occidentalis</i>
	<i>Solanum</i> aff. <i>sturtianum</i>
	<i>Solanum horridum</i>
	<i>Solanum lasiophyllum</i>
	<i>Solanum phlomoides</i>
	<i>Solanum sturtianum</i>
Sterculiaceae	<i>Keraudrenia nephrosperma</i>
	<i>Keraudrenia velutina</i> subsp. <i>elliptica</i>
	<i>Rulingia luteiflora</i>
	<i>Waltheria indica</i>
Surianaceae	<i>Stylobasium spathulatum</i>
Tiliaceae	<i>Corchorus crozophorifolius</i>
	<i>Corchorus lasiocarpus</i>
	<i>Corchorus lasiocarpus</i> subsp. <i>lasiocarpus</i>
	<i>Corchorus lasiocarpus</i> subsp. <i>parvus</i>
	<i>Corchorus sidoides</i>
	<i>Corchorus</i> sp.
	<i>Corchorus tectus</i>
	<i>Corchorus tridens</i>
	<i>Corchorus trilocularis</i>
	Violaceae
Zygophyllaceae	<i>Tribulus angustifolius</i>
	<i>Tribulus astrocarpus</i>
	<i>Tribulus cistoides</i>
	<i>Tribulus hirsutus</i>
	<i>Tribulus macrocarpus</i>
	<i>Tribulus occidentalis</i>
	<i>Tribulus suberosus</i>

# APPENDIX I

## SPECIES COMPOSITION MATRIX

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
Abutilon aff. lepidum (1) (MET 15 352)							+				
Abutilon aff. lepidum (4)		+					+		+		
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum											
Abutilon macrum											
Abutilon otocarpum											
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii						+					
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)			+				1%		1%		
Acacia ancistrocarpa	1%	+				+	1%	10%	3%		
Acacia aneura											
Acacia aneura var. aneura				10%	1%		55%				
Acacia aneura var. conifera		+									
Acacia aneura var. intermedia					5%			10%	2%		
Acacia aneura var. pilbarana											20%
Acacia arida											
Acacia bivenosa											
Acacia citrinoviridis											
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba			+	+						5%	
Acacia hilliana											
Acacia inaequilatera	2%	2%		2%		+		+	4%		
Acacia ligulata											
Acacia maitlandii											
Acacia marramamba											
Acacia monticola											
Acacia pachyacra											
Acacia paraneura											
Acacia pruinocarpa				2%	1%		5%	1%	2%		1%
Acacia pyrifolia											
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma		+	+	3%		+		+		1%	
Acacia sericophylla											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
Acacia stowardii (linear form)											
Acacia synchronicia		+	+	3%	5%	+	+	10%	+	+	+
Acacia tetragonophylla									+		
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana											
Acacia tumida var. pilbarensis						+					
Acacia victoriae											
Acacia wanyu											
Acacia xiphophylla											
Aerva javanica								1%	+	+	1%
Alternanthera angustifolia											
Alternanthera nana											
Alysicarpus muelleri					+						
Amaranthus sp.											
Amaranthus undulatus					+						
Amyema fitzgeraldii											+
Amyema preissii											
Anthobolus leptomerioides											
Aristida contorta			+								
Aristida holathera var. holathera	3%	8%		+						+	
Aristida holathera var. latifolia											
Aristida inaequiglumis	20%	1%					10%				
Aristida ingrata											
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca								1%			
Atriplex flabelliformis											
Bidens bipinnata											
Blumea tenella											
Boerhavia coccinea		+	+		+		+		+	+	+
Boerhavia repleta								+			+
Boerhavia sp.								+			
Bonamia media var. villosa											
Bonamia rosea	1%	+				+					
Bothriochloa bladonii											
Bulbostylis barbata											
Bulbostylis burbridgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha											
Capparis spinosa var. nummularia											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
Capparis umbonata											
Cenchrus ciliaris	+	5%	30%	80%	20%	20%	30%	20%	30%	35%	15%
Cenchrus setiger			nc								
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata					+		+				
Chloris pumilio							+		+		
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax					+	1%	1%			+	5%
Cleome viscosa	+	1%	+	+	+	+	+	+	+		+
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides				+		+			+		+
Corchorus sp.											
Corchorus tectus	+	2%		+				+			1%
Corchorus tridens							+				
Corchorus trilocularis											
Corymbia aff. opaca		1%									
Corymbia aspera											
Corymbia candida											
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana		+	+	+	2%						
Corymbia opaca											
Corymbia semiclara	1%					+					
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum											
Cullen leucochaites		+									
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus	+										
Cymbopogon procerus											
Cynodon dactylon											



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Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
<i>Dactyloctenium radulans</i>		+		+	+	+	+		+		+
<i>Dampiera candidans</i>											
<i>Dichanthium sericeum</i> subsp. <i>humilius</i>									+		
<i>Dicrastylis cordifolia</i>	+					+					
<i>Digitaria ctenantha</i>											
<i>Diplachne fusca</i> subsp. <i>fusca</i>											
<i>Dodonaea coriacea</i>											
<i>Dodonaea pachyneura</i>											
<i>Dodonaea petiolaris</i>											
<i>Duperreya commixta</i>			+			+					
<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>	+					+					
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>											
<i>Enneapogon caeruleus</i> var. <i>caeruleus</i>								+			
<i>Enneapogon intermedius</i>											
<i>Enneapogon polyphyllus</i>					+		1%	+	+		+
<i>Enneapogon robustissimus</i>											
<i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963)	+	+		+		+				+	+
<i>Eragrostis cumingii</i>											
<i>Eragrostis eriopoda</i>											
<i>Eragrostis falcata</i>											
<i>Eragrostis leptocarpa</i>											
<i>Eragrostis</i> sp.											
<i>Eragrostis tenellula</i>											
<i>Eragrostis xerophila</i>										+	
<i>Eremophila cuneifolia</i>											
<i>Eremophila exilifolia</i>											
<i>Eremophila forrestii</i> subsp. <i>forrestii</i>				+							
<i>Eremophila lanceolata</i>									+		
<i>Eremophila latrobei</i> subsp. aff. <i>filiformis</i>											
<i>Eremophila latrobei</i> subsp. <i>filiformis</i>							+				
<i>Eremophila latrobei</i> subsp. <i>glabra</i>											
<i>Eremophila longifolia</i>										+	
<i>Eremophila</i> sp.											
<i>Eremophila</i> sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
<i>Eriachne aristidea</i>	+	+				+				+	
<i>Eriachne gardneri</i>											
<i>Eriachne lanata</i>											
<i>Eriachne mucronata</i> (arid form) (MET 12 736)											
<i>Eriachne mucronata</i> (typical form)											
<i>Eriachne tenuiculmis</i>											
<i>Eucalyptus gamophylla</i>		3%				+					

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix											
Eucalyptus xerothermica											
Eulalia aurea	1%					+	+				
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)	+	+				+					
Euphorbia biconvexa											
Euphorbia coghlanii						+	+		+	+	+
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)											
Evolvulus alsinoides var. villosicalyx						nc	+				+
Fimbristylis dichotoma											
Flaveria australasica											
Glycine canescens							+				
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis									+		
Gomphrena cunninghamii											
Gomphrena kanisii											
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera	+	+				+					
Goodenia nuda											
Goodenia prostrata											
Goodenia sp.											
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)									+		+
Gossypium robinsonii						+	+				
Grevillea striata											
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla											
Hakea lorea subsp. lorea		+	5%	2%	+			+	+		1%
Haloragis gossei var. gossei	+										
Heliotropium chrysocarpum											
Heliotropium inexplicitum											
Heliotropium paniculatum											
Hibiscus aff. coatesii											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii											
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus											
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus											
Hibiscus sturtii var. platyklamys					+	+			+		
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea											
Indigofera georgei											+
Indigofera linifolia									+		+
Indigofera linnaei											+
Indigofera monophylla (brown calyx form)	+					+					
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri				+							
Iseilema dolichotrichum											
Iseilema eremaeum							+		+		
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia				+							
Maireana planifolia x villosa							+				
Maireana tomentosa											
Maireana triptera											
Maireana villosa									+		
Malvastrum americanum							1%				
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana	+		+			+	+	+	+		
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
Paraneurachne muelleri	1%	+	+			+					
Paspalidium clementii											
Paspalidium constrictum									2%		
Paspalidium rarum						+					
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara		+				+	+		+		+
Petalostylis cassioides											
Petalostylis labicheoides											
Phyllanthus erwinii						+				+	
Phyllanthus maderaspatensis											
Pluchea dentex											
Pluchea dunlopia											
Polycarpaea longiflora											
Portulaca conspicua					+						
Portulaca oleracea	+		+		+	+	+				
Psyrdrax latifolia											+
Pterocaulon sphaeranthoides							+				+
Ptilotus astrolasius var. astrolasius	+										
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus	+	+				+	+	+	+		+
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides											
Ptilotus helipteroides var. helipteroides											
Ptilotus macrocephalus											
Ptilotus obovatus var. obovatus		+				+	+		+		+
Ptilotus polystachyus var. polystachyus	+	+				+		+			
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea			+		+	+	+				
Rhyncharrhena linearis						+					
Rhynchosia minima var. australis					+			+		+	+
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus			+		+			+			+
Salsola tragus subsp. tragus											
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae	1%					+					
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
<i>Sclerolaena cornishiana</i>			+		+		+	+	+		2%
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>helmsii</i>		+									
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>				+		+				+	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	+						+			
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>											
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>						+					
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>											
<i>Senna notabilis</i>	+	+				+	+	+	+		+
<i>Senna</i> sp.											+
<i>Sesbania cannabina</i>											
<i>Setaria verticillata</i>											
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)											
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)					+					1%	
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)					+						
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>	+										
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>				+					+		+
<i>Sida</i> sp.						+					
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)											
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>	+	+	+			+	+	+	+		+
<i>Solanum phlomoides</i>						+					
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>		+		+	+	+	+		+		+
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>											
<i>Streptoglossa bubakii</i>											

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Matrix of Species Found Within Each Site

Species	YA01	YA02	YA03	YA04	YA05	YA06	YA07	YA08	YA10	YA11	YA12
<i>Streptoglossa macrocephala</i>											
<i>Stylobasium spathulatum</i>											
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)										+	
<i>Tephrosia rosea</i> var. <i>glabrior</i>									+		+
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>			+								
<i>Trianthema pilosa</i>	+	3%									
<i>Trianthema triquetra</i> var. <i>triquetra</i>			+								
<i>Tribulus angustifolius</i>		+				+					
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>								+			
<i>Tribulus hirsutus</i>	+	+									
<i>Tribulus macrocarpus</i>		+				+					
<i>Tribulus occidentalis</i>											
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+			+		+					+
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>	5%	5%	+	2%		+			10%		
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>										20%	+
<i>Triodia schinzii</i>											
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>					1%			+			
<i>Waltheria indica</i>											
<i>Yakirra australiensis</i> var. <i>australiensis</i>	+	+						+			

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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
Abutilon aff. lepidum (1) (MET 15 352)											
Abutilon aff. lepidum (4)									+		
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum											
Abutilon macrum											
Abutilon otocarpum			+						+		
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii											
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)		1%	+						+		
Acacia ancistrocarpa		1%					20%	+			
Acacia aneura											
Acacia aneura var. aneura	15%										
Acacia aneura var. conifera											
Acacia aneura var. intermedia				10%							
Acacia aneura var. pilbarana											
Acacia arida											
Acacia bivenosa											
Acacia citrinoviridis				20%	+	5%	+		+	+	10%
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba								+			+
Acacia hilliana											
Acacia inaequilatera				+	2%		+	1%	1%	+	+
Acacia ligulata											
Acacia maitlandii											
Acacia marramamba											
Acacia monticola											
Acacia pachyacra											
Acacia paraneura											
Acacia pruinocarpa	+		1%	5%	15%	1%		+	5%	3%	
Acacia pyrifolia											
Acacia rhodophloia											
Acacia sclerosperma		+									
Acacia sclerosperma subsp. sclerosperma				1%		+	2%		+	10%	30%
Acacia sericophylla											



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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
Acacia stowardii (linear form)											
Acacia synchronica	10%	3%	10%	1%	1%	+	10%	+	10%	+	3%
Acacia tetragonophylla											
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana											
Acacia tumida var. pilbarensis											
Acacia victoriae		+									
Acacia wanyu											
Acacia xiphophylla											
Aerva javanica			1%	1%	+	+	1%	1%	1%	+	1%
Alternanthera angustifolia											
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus											
Amyema fitzgeraldii		+		+							
Amyema preissii											
Anthobolus leptomerioides											
Aristida contorta	3%										
Aristida holathera var. holathera			+				+	+	+		
Aristida holathera var. latifolia											
Aristida inaequiglumis								+			
Aristida ingrata											
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca						+					5%
Atriplex flabelliformis											
Bidens bipinnata											
Blumea tenella											
Boerhavia coccinea	+	+	+	+	+		+		+	+	
Boerhavia repleta		+									+
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea											
Bothriochloa bladonii											1%
Bulbostylis barbata	+										
Bulbostylis burbridgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha											
Capparis spinosa var. nummularia						+					

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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
Capparis umbonata											
Cenchrus ciliaris	20%	10%	15%	20%	60%	5%	80%	54%	70%	45%	90%
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata	+							+			
Chloris pumilio											
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax	2%		+	+	2%				+	2%	1%
Cleome viscosa	+	+	+	+	+	+		1%		+	+
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides	2%		2%				+				
Corchorus sp.											
Corchorus tectus	+				+			+	+		+
Corchorus tridens				+						+	
Corchorus trilocularis											
Corymbia aff. opaca			+								
Corymbia aspera											
Corymbia candida											
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana										+	
Corymbia opaca											
Corymbia semiclara							+				
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum		+						2%			1%
Cullen leucochaites									+		
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus											
Cymbopogon procerus											
Cynodon dactylon											

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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
Dactyloctenium radulans	2%		+	+	+			+	+		
Dampiera candidans											
Dichanthium sericeum subsp. humilium											
Dicrastylis cordifolia											
Digitaria ctenantha	+										
Diplachne fusca subsp. fusca											
Dodonaea coriacea											
Dodonaea pachyneura											
Dodonaea petiolaris											
Duperreya commixta											
Dysphania rhadinostachya subsp. rhadinostachya											
Enchylaena tomentosa var. tomentosa											
Enneapogon caeruleus var. caeruleus											
Enneapogon intermedius											
Enneapogon polyphyllus	+	+	3%		+					+	+
Enneapogon robustissimus											
Eragrostis aff. eriopoda (WAS site 963)		+			+					+	
Eragrostis cumingii											
Eragrostis eriopoda											
Eragrostis falcata											
Eragrostis leptocarpa											
Eragrostis sp.											
Eragrostis tenellula											
Eragrostis xerophila	+			+	+				+		
Eremophila cuneifolia											
Eremophila exilifolia											
Eremophila forrestii subsp. forrestii											
Eremophila lanceolata				+	+						
Eremophila latrobei subsp. aff. filiformis											
Eremophila latrobei subsp. filiformis											
Eremophila latrobei subsp. glabra											
Eremophila longifolia											
Eremophila sp.											
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
Eriachne aristidea											
Eriachne gardneri											
Eriachne lanata											
Eriachne mucronata (arid form) (MET 12 736)											
Eriachne mucronata (typical form)											
Eriachne tenuiculmis											
Eucalyptus gamophylla											

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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix						5%					
Eucalyptus xerothermica						1%			+		
Eulalia aurea											
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)	+			+					+		
Euphorbia biconvexa											
Euphorbia coghlanii	+		+			+					+
Euphorbia sp. (FMLMC-10)						+					
Euphorbia sp. (site 1089)						+					
Euphorbia tannensis subsp. eremophila (Hamersley form)											
Evolvulus alsinoides var. villosicalyx											+
Fimbristylis dichotoma											
Flaveria australasica											
Glycine canescens											
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis											
Gomphrena cunninghamii											
Gomphrena kanisii	+										
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera											
Goodenia nuda											
Goodenia prostrata				+							
Goodenia sp.											
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)				nc							
Gossypium robinsonii								+			
Grevillea striata											
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla											
Hakea lorea subsp. lorea			1%		+	+			+	+	7%
Haloragis gossei var. gossei											
Heliotropium chrysocarpum											
Heliotropium inexplicitum	+										
Heliotropium paniculatum											
Hibiscus aff. coatesii											

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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii											
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus											
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus											
Hibiscus sturtii var. platyklamys	+						+				
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea	+	+	+	+				+	+		+
Indigofera georgei											
Indigofera linifolia	+							+	+	+	+
Indigofera linnaei											
Indigofera monophylla (brown calyx form)											
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri	+		+	+				+		+	
Iseilema dolichotrichum											
Iseilema eremaeum			+					+		+	
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia											
Maireana planifolia x villosa											
Maireana tomentosa											
Maireana triptera											
Maireana villosa											
Malvastrum americanum									+		+
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana								+			
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis											

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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
Paraneurachne muelleri		+									
Paspalidium clementii											
Paspalidium constrictum											
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara	2%										+
Petalostylis cassioides											
Petalostylis labicheoides											
Phyllanthus erwinii	+										
Phyllanthus maderaspatensis								+			
Pluchea dentex											
Pluchea dunlopii											
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea	1%		+	1%	+					+	
Psyrax latifolia		+		+							
Pterocaulon sphaeranthoides			+								+
Ptilotus astrolasius var. astrolasius											
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus	+			+							
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides											
Ptilotus helipteroides var. helipteroides	+										
Ptilotus macrocephalus											
Ptilotus obovatus var. obovatus											
Ptilotus polystachyus var. polystachyus	+										
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea					+	+				+	
Rhyncharrhena linearis											
Rhynchosia minima var. australis			+		+				+	+	+
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus	+	+					+	+		+	
Salsola tragus subsp. tragus											
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae											
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
<i>Sclerolaena cornishiana</i>	5%	+	+	+			+		+	+	+
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	+										
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+			+			+		+		
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>											
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>											
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>											
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>											
<i>Senna notabilis</i>	1%							+	+		
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>						+					
<i>Setaria verticillata</i>											
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)											+
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)			1%								
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)		+		+							
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>											
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>	5%										
<i>Sida</i> sp.											
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)											
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>	+		+		+				+		
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>	+			+	+			+			
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>											
<i>Streptoglossa bubakii</i>				+							



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Matrix of Species Found Within Each Site

Species	YA13	YA14	YA15	YA16	YA17	YA18	YA19	YA20	YA21	YA22	YA23
<i>Streptoglossa macrocephala</i>											
<i>Stylobasium spathulatum</i>											
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)	+		+			+					
<i>Tephrosia rosea</i> var. <i>glabrior</i>											
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>											
<i>Trianthema pilosa</i>											
<i>Trianthema triquetra</i> var. <i>triquetra</i>											
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>											
<i>Tribulus hirsutus</i>											
<i>Tribulus macrocarpus</i>											
<i>Tribulus occidentalis</i>		+	+							+	
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+										
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>											
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>	+										
<i>Triodia schinzii</i>											
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>							+				
<i>Waltheria indica</i>											
<i>Yakirra australiensis</i> var. <i>australiensis</i>											

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APPENDIX I

Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
Abutilon aff. lepidum (1) (MET 15 352)		+	+		1%	+			+		+
Abutilon aff. lepidum (4)										+	
Abutilon fraseri											
Abutilon lepidum		nc									
Abutilon leucopetalum											
Abutilon macrum				+							+
Abutilon otocarpum											+
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii								+			
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)	1%	4%	30%	70%			2%		40%	20%	
Acacia ancistrocarpa		3%	+	3%		10%	6%	4%	3%	1%	20%
Acacia aneura											
Acacia aneura var. aneura											
Acacia aneura var. conifera										10%	+
Acacia aneura var. intermedia					5%						5%
Acacia aneura var. pilbarana						5%					
Acacia arida											
Acacia bivenosa	8%						1%				
Acacia citrinoviridis		+			15%	+				+	
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba	8%	1%	+					1%			
Acacia hilliana											
Acacia inaequilatera			+	+	+						
Acacia ligulata											
Acacia maitlandii											
Acacia marramamba			+								
Acacia monticola											
Acacia pachyacra								+			
Acacia paraneura		1%									
Acacia pruinocarpa	10%	5%	+	+	15%	3%	5%	+	2%	1%	2%
Acacia pyrifolia											
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma		+			4%			5%	1%	1%	
Acacia sericophylla											

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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
Acacia stowardii (linear form)											
Acacia synchronicia		3%	5%		1%	1%		20%		5%	1%
Acacia tetragonophylla		+	+	1%		+		+	1%	+	
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana											
Acacia tumida var. pilbarensis											
Acacia victoriae											
Acacia wanyu											
Acacia xiphophylla											
Aerva javanica	1%	+	+		+						
Alternanthera angustifolia		+									
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus											
Amyema fitzgeraldii									+	1%	
Amyema preissii											
Anthobolus leptomerioides						+	+				
Aristida contorta											
Aristida holathera var. holathera	+		2%			+					
Aristida holathera var. latifolia				+							
Aristida inaequiglumis							+		+		
Aristida ingrata						+					+
Aristida latifolia											
Aristida sp.											+
Atalaya hemiglauca											
Atriplex flabelliformis											
Bidens bipinnata						+					
Blumea tenella											
Boerhavia coccinea	+		+		+	+	+		+		+
Boerhavia repleta					+						+
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea											
Bothriochloa bladhii											
Bulbostylis barbata											
Bulbostylis burbidgeae		+									
Calandrinia ptychosperma		+	+								
Calytrix carinata											
Capparis lasiantha											
Capparis spinosa var. nummularia											

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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
Capparis umbonata								+			
Cenchrus ciliaris	70%	40%	30%	40%	90%	20%	5%	7%	10%	1%	80%
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi				+							
Chenopodium melanocarpum				+							
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata		+				+			+		
Chloris pumilio		+		+							
Chloris virgata			+								
Chrysocephalum pterochaetum											
Chrysopogon fallax		7%	+	+	+				+		
Cleome viscosa		+	+	1%	+	+	+	+	+		+
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides	+		+	+		+	+	+			
Corchorus sp.											
Corchorus tectus	+	+	+	+	+	+	+		+		+
Corchorus tridens											
Corchorus trilocularis											
Corymbia aff. opaca											
Corymbia aspera									3%		
Corymbia candida										+	
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana	1%				1%			+			
Corymbia opaca											
Corymbia semiclara						+					
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis									+	+	
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum	+										
Cullen leucochaites											nc
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus											
Cymbopogon procerus											
Cynodon dactylon											

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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
<i>Dactyloctenium radulans</i>	+	+	3%	+		1%			+	+	+
<i>Dampiera candidans</i>											
<i>Dichanthium sericeum</i> subsp. <i>humilius</i>		+	2%		+						+
<i>Dicrastylis cordifolia</i>											
<i>Digitaria ctenantha</i>				+							
<i>Diplachne fusca</i> subsp. <i>fusca</i>											
<i>Dodonaea coriacea</i>											
<i>Dodonaea pachyneura</i>											
<i>Dodonaea petiolaris</i>						+					
<i>Duperreya commixta</i>		+		+	+	+	+		+	+	+
<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>											
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>				+					+		
<i>Enneapogon caerulescens</i> var. <i>caerulescens</i>	+		+								
<i>Enneapogon intermedius</i>											
<i>Enneapogon polyphyllus</i>	+		+	+		+	1%		+	+	+
<i>Enneapogon robustissimus</i>											
<i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963)	+									+	
<i>Eragrostis cumingii</i>		+		+							
<i>Eragrostis eriopoda</i>											
<i>Eragrostis falcata</i>											
<i>Eragrostis leptocarpa</i>									+		
<i>Eragrostis</i> sp.											
<i>Eragrostis tenellula</i>											
<i>Eragrostis xerophila</i>			+								
<i>Eremophila cuneifolia</i>											
<i>Eremophila exilifolia</i>											
<i>Eremophila forrestii</i> subsp. <i>forrestii</i>						+					
<i>Eremophila lanceolata</i>			+		+						
<i>Eremophila latrobei</i> subsp. aff. <i>filiformis</i>											
<i>Eremophila latrobei</i> subsp. <i>filiformis</i>										+	
<i>Eremophila latrobei</i> subsp. <i>glabra</i>											
<i>Eremophila longifolia</i>		+			7%				+		
<i>Eremophila</i> sp.											
<i>Eremophila</i> sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
<i>Eriachne aristidea</i>	nc		+								
<i>Eriachne gardneri</i>											
<i>Eriachne lanata</i>											
<i>Eriachne mucronata</i> (arid form) (MET 12 736)											
<i>Eriachne mucronata</i> (typical form)											
<i>Eriachne tenuiculmis</i>											
<i>Eucalyptus gamophylla</i>									+		

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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix											
Eucalyptus xerothermica											
Eulalia aurea	+	40%	1%		+	1%			2%		1%
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)	+										
Euphorbia biconvexa											
Euphorbia coghlanii		+	+	+	+	+	+		+		
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)								+			
Evolvulus alsinoides var. villosicalyx		+		+	+						+
Fimbristylis dichotoma											
Flaveria australasica		+									
Glycine canescens					+						+
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis		+	+	+							
Gomphrena cunninghamii				+		+	+				+
Gomphrena kanisii			+								
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera											
Goodenia nuda											
Goodenia prostrata		+	+	+		+					
Goodenia sp.											
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila									+		
Gossypium australe (Burrup Peninsula form)											
Gossypium robinsonii											
Grevillea striata											
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla											
Hakea lorea subsp. lorea	1%	+		1%	1%						+
Haloragis gossei var. gossei											
Heliotropium chrysocarpum											
Heliotropium inexplicitum											
Heliotropium paniculatum											
Hibiscus aff. coatesii											

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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii										+	
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus			+								
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus											
Hibiscus sturtii var. platyklamys		+	+				+				
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea	+		+		+			+			
Indigofera georgei						+					
Indigofera linifolia	+	+	+		+	+					
Indigofera linnaei											
Indigofera monophylla (brown calyx form)				+							
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri					+	+				+	
Iseilema dolichotrichum											
Iseilema eremaeum		+	+			+	+		+	+	
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia			+								
Maireana planifolia x villosa											
Maireana tomentosa											
Maireana triptera											
Maireana villosa											
Malvastrum americanum		+				1%			+	+	
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana		+	+	+	+	+			+		+
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis		+									



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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
Paraneurachne muelleri											
Paspalidium clementii						+			+	+	
Paspalidium constrictum		+		+							+
Paspalidium rarum			+								
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara	+		1%	+	+	5%	+		+		+
Petalostylis cassioides											
Petalostylis labicheoides											
Phyllanthus erwinii	+	+				+					
Phyllanthus maderaspatensis											
Pluchea dentex											+
Pluchea dunlopia											
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea	+	+	+	+				+		+	+
Psyrdrax latifolia	+	+								+	+
Pterocaulon sphaeranthoides	+			+		+					
Ptilotus astrolasius var. astrolasius						+					
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus	+	+					+				+
Ptilotus gaudichaudii var. gaudichaudii				+		+					
Ptilotus gomphrenoides var. gomphrenoides					+						
Ptilotus helipteroides var. helipteroides			+			+					
Ptilotus macrocephalus			+			+					
Ptilotus obovatus var. obovatus			+							+	+
Ptilotus polystachyus var. polystachyus						+					
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea									+	+	
Rhyncharrhena linearis											
Rhynchosia minima var. australis	+	+	+	+	+	+		+	+		+
Rostellularia adscendens subsp. adscendens var. latifolia										+	
Rulingia luteiflora											
Salsola tragus	+	+			+		+				
Salsola tragus subsp. tragus											
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae											
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
<i>Sclerolaena cornishiana</i>		+	+		+	+	+		+	+	
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)										+	
<i>Senna artemisioides</i> subsp. <i>helmsii</i>				2%	nc						+
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	1%	2%		2%					+	1%	1%
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>			+			+	+			+	
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>							+				
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>											
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>											
<i>Senna notabilis</i>	+	+	+			+		+	+	+	+
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>											
<i>Setaria verticillata</i>		+							+		
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)						+					
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)		+		+	+				1%		
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)											
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>											
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>			+				+				
<i>Sida</i> sp.			+								
<i>Sida</i> sp. spiciform panicles (E. Leyland s.n. 14/8/90)						+	+				
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>			+			+	+		+		
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>	+	+	+		+				+	+	
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>											
<i>Streptoglossa bubakii</i>		+				+				+	

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Matrix of Species Found Within Each Site

Species	YA24	YA25	YA26	YA27	YA28	YA30	YA31	YA32	YA33	YA34	YA39
<i>Streptoglossa macrocephala</i>											
<i>Stylobasium spathulatum</i>											
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)	+	+									
<i>Tephrosia rosea</i> var. <i>glabrior</i>											
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>											
<i>Trianthema pilosa</i>											
<i>Trianthema triquetra</i> var. <i>triquetra</i>											
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>											
<i>Tribulus hirsutus</i>											
<i>Tribulus macrocarpus</i>											
<i>Tribulus occidentalis</i>	+							+			
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>		+				+					+
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>											
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>	20%	+	10%	4%		+	15%	70%	+		+
<i>Triodia schinzii</i>											
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>											
<i>Waltheria indica</i>			+								
<i>Yakirra australiensis</i> var. <i>australiensis</i>											

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
Abutilon aff. lepidum (1) (MET 15 352)		+		+			+				
Abutilon aff. lepidum (4)								+			
Abutilon fraseri		+									
Abutilon lepidum											
Abutilon leucopetalum					+						
Abutilon macrum			1%						+		
Abutilon otocarpum									nc	+	
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii						+					
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)	1%		+			1%			5%		1%
Acacia ancistrocarpa		+		+		+	+	2%	5%	7%	+
Acacia aneura											
Acacia aneura var. aneura			10%								
Acacia aneura var. conifera										+	
Acacia aneura var. intermedia				2%					+		
Acacia aneura var. pilbarana		40%									
Acacia arida											
Acacia bivenosa		1%		6%	+	1%	1%	10%		+	
Acacia citrinoviridis		+									
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba							+	+			
Acacia hilliana											
Acacia inaequilatera				+	4%	+	+	1%		4%	
Acacia ligulata											
Acacia maitlandii											
Acacia marramamba											
Acacia monticola											
Acacia pachyacra										+	
Acacia paraneura											
Acacia pruinocarpa	+	3%	1%	1%	+	1%	1%	+	+	+	6%
Acacia pyrifolia											
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma									5%		1%
Acacia sericophylla					+						

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
Acacia stowardii (linear form)											
Acacia synchronicia	+	3%				1%	1%	1%	4%	+	7%
Acacia tetragonophylla	1%										+
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana											
Acacia tumida var. pilbarensis											
Acacia victoriae											
Acacia wanyu											
Acacia xiphophylla		15%									
Aerva javanica	+	1%						+			
Alternanthera angustifolia											
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus		+									
Amyema fitzgeraldii											
Amyema preissii											
Anthobolus leptomerioides			+		+			+			
Aristida contorta	+								+		
Aristida holathera var. holathera						+		+	+		+
Aristida holathera var. latifolia											
Aristida inaequiglumis	1%	+		+	+	2%		+	+	+	+
Aristida ingrata		+									
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca											
Atriplex flabelliformis											
Bidens bipinnata			1%								
Blumea tenella		+									
Boerhavia coccinea	+		+	+	+	+				+	+
Boerhavia repleta									+		
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea					+						
Bothriochloa bladonii											
Bulbostylis barbata											
Bulbostylis burbidgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha							+			+	
Capparis spinosa var. nummularia											+

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
Capparis umbonata							+				+
Cenchrus ciliaris	3%	20%	5%	25%	+	10%	5%	5%	20%	10%	15%
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum		+									
Chloris pectinata		1%						+			+
Chloris pumilio											
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax		+									
Cleome viscosa	+	+	2%	+		+	+		+	+	+
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides		+		2%					+		
Corchorus sp.											
Corchorus tectus	1%	+			+	1%	+	+	+	+	
Corchorus tridens											
Corchorus trilocularis		+									
Corymbia aff. opaca											
Corymbia aspera											
Corymbia candida											
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana				+							
Corymbia opaca											
Corymbia semiclara											
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum											
Cullen leucochaites					+	+					+
Cullen martinii						+					
Cymbopogon ambiguus											
Cymbopogon obtectus						+					
Cymbopogon procerus											
Cynodon dactylon											

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
<i>Dactyloctenium radulans</i>		1%		+		+	+				+
<i>Dampiera candidans</i>											
<i>Dichanthium sericeum</i> subsp. <i>humilius</i>	+	nc	+								
<i>Dicrastylis cordifolia</i>					+						
<i>Digitaria ctenantha</i>		5%		2%							
<i>Diplachne fusca</i> subsp. <i>fusca</i>											
<i>Dodonaea coriacea</i>											
<i>Dodonaea pachyneura</i>											
<i>Dodonaea petiolaris</i>											
<i>Duperreya commixta</i>		+	+	+							+
<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>											
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>											
<i>Enneapogon caerulescens</i> var. <i>caerulescens</i>				+	+	+		+			
<i>Enneapogon intermedius</i>											
<i>Enneapogon polyphyllus</i>	2%	1%	7%	3%	+	+	+	+	+	+	+
<i>Enneapogon robustissimus</i>											
<i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963)					5%	+					
<i>Eragrostis cumingii</i>											
<i>Eragrostis eriopoda</i>		1%									
<i>Eragrostis falcata</i>											
<i>Eragrostis leptocarpa</i>											
<i>Eragrostis</i> sp.											
<i>Eragrostis tenellula</i>											
<i>Eragrostis xerophila</i>		1%									
<i>Eremophila cuneifolia</i>									+		+
<i>Eremophila exilifolia</i>											
<i>Eremophila forrestii</i> subsp. <i>forrestii</i>		+	1%								
<i>Eremophila lanceolata</i>											
<i>Eremophila latrobei</i> subsp. aff. <i>filiformis</i>											
<i>Eremophila latrobei</i> subsp. <i>filiformis</i>											
<i>Eremophila latrobei</i> subsp. <i>glabra</i>											
<i>Eremophila longifolia</i>											
<i>Eremophila</i> sp.											
<i>Eremophila</i> sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
<i>Eriachne aristidea</i>					+	+			+		
<i>Eriachne gardneri</i>											
<i>Eriachne lanata</i>											
<i>Eriachne mucronata</i> (arid form) (MET 12 736)											
<i>Eriachne mucronata</i> (typical form)											
<i>Eriachne tenuiculmis</i>											
<i>Eucalyptus gamophylla</i>					4%	1%	1%	+			



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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix											
Eucalyptus xerothermica						2%	1%	2%	+	+	1%
Eulalia aurea		1%	+						+		
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)				+		+					
Euphorbia biconvexa						+					
Euphorbia coghlanii	+	+	+	+				+	+	+	
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)											
Evolvulus alsinoides var. villosicalyx			+						+		
Fimbristylis dichotoma											
Flaveria australasica											
Glycine canescens											
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis			+						+		
Gomphrena cunninghamii		+									
Gomphrena kanisii		+		+							
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera					+						
Goodenia nuda											
Goodenia prostrata		+				+					
Goodenia sp.											
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)						+	+		+		
Gossypium robinsonii											
Grevillea striata											
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla											
Hakea lorea subsp. lorea	+										+
Haloragis gossei var. gossei											
Heliotropium chrysocarpum											
Heliotropium inexplicitum						+					
Heliotropium paniculatum											
Hibiscus aff. coatesii											

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)										+	
Hibiscus brachychlaenus											
Hibiscus burtonii			+			+		+	+		
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus										+	
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus		+									
Hibiscus sturtii var. platyklamys					+		+	+			
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea											
Indigofera georgei	+			+							
Indigofera linifolia				+			+				
Indigofera linnaei											
Indigofera monophylla (brown calyx form)					+	2%		1%		+	
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri				+							
Iseilema dolichotrichum										+	
Iseilema eremaeum				+		+			+		+
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia	+								+		+
Maireana planifolia x villosa				+							
Maireana tomentosa											
Maireana triptera											
Maireana villosa		+									
Malvastrum americanum		2%									
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana	+	+	+	+	+	+	+		+	+	
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis		+									

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
Paraneurachne muelleri											
Paspalidium clementii						+					
Paspalidium constrictum		+	+								
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara		+		+							
Petalostylis cassioides											
Petalostylis labicheoides											
Phyllanthus erwinii		+				+					
Phyllanthus maderaspatensis											
Pluchea dentex											
Pluchea dunlopii											
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea	+	+	+	+		+			+		+
Psyrax latifolia		+	+							+	+
Pterocaulon sphaeranthoides		+									+
Ptilotus astrolasius var. astrolasius					+	+					
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus	+	+	+	+		+	+	+	+	+	
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides											
Ptilotus helipteroides var. helipteroides	+			+		+					
Ptilotus macrocephalus		+									
Ptilotus obovatus var. obovatus	+	+		+		+		+		+	+
Ptilotus polystachyus var. polystachyus						+					
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea	+	3%									+
Rhyncharrhena linearis						+					
Rhynchosia minima var. australis		+	+						+	+	+
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus	+	+		+		+	+		+		+
Salsola tragus subsp. tragus											
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae						2%					
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
<i>Sclerolaena cornishiana</i>	+	+	+						+	+	+
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)		3%				+					
<i>Senna artemisioides</i> subsp. <i>helmsii</i>									+	+	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>			+	1%		+	+	1%			+
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>		2%				+	+	+	+	+	+
<i>Senna charlesiana</i>									+		
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>				+			+			1%	
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>							+				+
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>						+			+		
<i>Senna notabilis</i>	+	+	+	+	+	+	+				+
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>											
<i>Setaria verticillata</i>		+									
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)											
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)			+	+			+		+		
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)											
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>								+			
<i>Sida echinocarpa</i>							+				
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>											
<i>Sida</i> sp.											
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)				+							
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>	+	+	+		+	+	+	+		+	+
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>					+						
<i>Sporobolus australasicus</i>		1%	+	+		+		+	+	+	+
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>											
<i>Streptoglossa bubakii</i>		+									+

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Matrix of Species Found Within Each Site

Species	YA40	YA41	YA42	YA43	YA44	YA45	YA46	YA47	YA48	YA49	YA50
<i>Streptoglossa macrocephala</i>											
<i>Stylobasium spathulatum</i>											
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)		+	+								
<i>Tephrosia rosea</i> var. <i>glabrior</i>											
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>											
<i>Trianthera pilosa</i>											
<i>Trianthera triquetra</i> var. <i>triquetra</i>											
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>											
<i>Tribulus hirsutus</i>					+	+					
<i>Tribulus macrocarpus</i>											
<i>Tribulus occidentalis</i>											
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>		+		+		+					
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>											
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>				30%	40%	2%	30%	15%	20%	10%	1%
<i>Triodia schinzii</i>											
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>											
<i>Waltheria indica</i>											
<i>Yakirra australiensis</i> var. <i>australiensis</i>						+					

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
Abutilon aff. lepidum (1) (MET 15 352)	1%	+			+				+		+
Abutilon aff. lepidum (4)				+			+				
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum											
Abutilon macrum											
Abutilon otocarpum		+			+						
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii						+					
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)	5%				2%			+		+	
Acacia ancistrocarpa				6%	15%	20%	35%	3%	3%		1%
Acacia aneura											
Acacia aneura var. aneura										2%	
Acacia aneura var. conifera									2%		
Acacia aneura var. intermedia											5%
Acacia aneura var. pilbarana					2%						10%
Acacia arida											
Acacia bivenosa											
Acacia citrinoviridis											
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba	30%		+	+			+	1%			
Acacia hilliana											
Acacia inaequilatera						+	2%	1%			
Acacia ligulata					+						
Acacia maitlandii											
Acacia marramamba											
Acacia monticola											
Acacia pachyacra			+								
Acacia paraneura											
Acacia pruinocarpa		+	+		2%	1%	+	+		1%	3%
Acacia pyrifolia											
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma	1%		+	8%	+		7%	4%	15%		+
Acacia sericophylla											

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
Acacia stowardii (linear form)											
Acacia synchronicia	10%	10%		+	+	+	1%	+	2%	1%	2%
Acacia tetragonophylla							+	+			+
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana							+				
Acacia tumida var. pilbarensis											
Acacia victoriae											
Acacia wanyu											
Acacia xiphophylla											2%
Aerva javanica		+									
Alternanthera angustifolia											
Alternanthera nana					+						
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus	+										
Amyema fitzgeraldii	+										
Amyema preissii											
Anthobolus leptomerioides				+					+		+
Aristida contorta		+	+	+						+	
Aristida holathera var. holathera							+	+	+		+
Aristida holathera var. latifolia			+								
Aristida inaequiglumis			+		1%	1%	+	+	1%	+	+
Aristida ingrata							nc			+	
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca	1%									+	
Atriplex flabelliformis									+		
Bidens bipinnata	+										
Blumea tenella											
Boerhavia coccinea	+	+		+					+		
Boerhavia repleta		+									
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea											
Bothriochloa bladhii											
Bulbostylis barbata											
Bulbostylis burbidgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha				+							
Capparis spinosa var. nummularia				+							



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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
Capparis umbonata				+							
Cenchrus ciliaris	60%	20%	10%	70%	10%	2%	5%	1%	5%	1%	
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata	+										+
Chloris pumilio											
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax					+						
Cleome viscosa	+		+	+	+	+	+		+	+	+
Convolvulus angustissimus subsp. angustissimus					+						
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides	+	+				+			+	+	+
Corchorus sp.											
Corchorus tectus			+	+	+	+	+		+		+
Corchorus tridens											
Corchorus trilocularis											
Corymbia aff. opaca											
Corymbia aspera	+										
Corymbia candida											
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana							1%				
Corymbia opaca											
Corymbia semiclara											
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis	+										
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum											
Cullen leucochaites											
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus			+			+		1%	+		
Cymbopogon procerus											
Cynodon dactylon											

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
Dactyloctenium radulans	+	+			+		+		+	+	+
Dampiera candidans											
Dichanthium sericeum subsp. humilium											
Dicrastylis cordifolia						+		+			
Digitaria ctenantha											
Diplachne fusca subsp. fusca											
Dodonaea coriacea											
Dodonaea pachyneura											
Dodonaea petiolaris											
Duperreya commixta	+	+		+		+		+	+		
Dysphania rhadinostachya subsp. rhadinostachya					+						
Enchylaena tomentosa var. tomentosa					+						
Enneapogon caerulescens var. caerulescens			+							+	
Enneapogon intermedius											
Enneapogon polyphyllus		+			+	+	+	+	+	+	+
Enneapogon robustissimus											
Eragrostis aff. eriopoda (WAS site 963)	+			+			+		+		
Eragrostis cumingii											
Eragrostis eriopoda											
Eragrostis falcata											
Eragrostis leptocarpa	+										
Eragrostis sp.			+								
Eragrostis tenellula											
Eragrostis xerophila											
Eremophila cuneifolia										+	
Eremophila exilifolia											
Eremophila forrestii subsp. forrestii								+			1%
Eremophila lanceolata											
Eremophila latrobei subsp. aff. filiformis											
Eremophila latrobei subsp. filiformis										+	+
Eremophila latrobei subsp. glabra											
Eremophila longifolia				+	+		+		+		
Eremophila sp.											
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
Eriachne aristidea			+				+	+	+		+
Eriachne gardneri											
Eriachne lanata											
Eriachne mucronata (arid form) (MET 12 736)											
Eriachne mucronata (typical form)											
Eriachne tenuiculmis											
Eucalyptus gamophylla			2%			+	1%	1%	+		

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix				4%							
Eucalyptus xerothermica		1%		+	1%				+		
Eulalia aurea					1%	+			+		
Euphorbia aff. australis var. 1 (MET 12 337)										+	
Euphorbia australis (mid-green form)		+	+		+	+					
Euphorbia biconvexa											
Euphorbia coghlanii	+		+	+	+		+			+	+
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)						+	+	+			
Evolvulus alsinoides var. villosicalyx										+	
Fimbristylis dichotoma											
Flaveria australasica											
Glycine canescens											
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis											
Gomphrena cunninghamii											
Gomphrena kanisii											
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera											
Goodenia nuda											
Goodenia prostrata										+	
Goodenia sp.											
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)											
Gossypium robinsonii											
Grevillea striata											
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla											
Hakea lorea subsp. lorea				+		+	+	+	+		
Haloragis gossei var. gossei			+								
Heliotropium chrysocarpum											
Heliotropium inexplicitum											
Heliotropium paniculatum											
Hibiscus aff. coatesii											

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii										+	
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus					+						
Hibiscus sturtii var. aff. truncatus (site 1 016)						+					
Hibiscus sturtii var. grandiflorus					+						
Hibiscus sturtii var. platyklamys			+				+	+	+		
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea											
Indigofera georgei											
Indigofera linifolia											
Indigofera linnaei											
Indigofera monophylla (brown calyx form)											
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri					+						
Iseilema dolichotrichum											
Iseilema eremaeum	+				+			+	+		
Isotropis atropurpurea											
Jasminum didymum subsp. lineare				+							
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia	+										
Maireana planifolia x villosa											+
Maireana tomentosa					+				+		+
Maireana triptera		+			+				+	1%	+
Maireana villosa											
Malvastrum americanum	+										
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana	+		+	+		+	+	+			
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis											

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
Paraneurachne muelleri					+		1%	+	1%		
Paspalidium clementii					+	+	+	+	+		
Paspalidium constrictum											
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara	+						+				+
Petalostylis cassioides			2%								
Petalostylis labicheoides											
Phyllanthus erwinii	+										
Phyllanthus maderaspatensis											
Pluchea dentex											
Pluchea dunlopii							+				
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea	+	+		+						+	+
Psyrax latifolia	+								+	+	+
Pterocaulon sphaeranthoides	+										
Ptilotus astrolasius var. astrolasius						+		+	+		
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus			+		+	+	+		+	+	+
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides											
Ptilotus helipteroides var. helipteroides										+	
Ptilotus macrocephalus											
Ptilotus obovatus var. obovatus	+	1%					+	+		+	
Ptilotus polystachyus var. polystachyus			+								
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii										+	
Rhagodia eremaea	+	+		+	+	+					+
Rhyncharrhena linearis								+			
Rhynchosia minima var. australis			+	+	+						
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus		+									+
Salsola tragus subsp. tragus											
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae											
Scaevola spinescens									+		
Scaevola spinescens (broad form)											
Schizachyrium fragile											

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
<i>Sclerolaena cornishiana</i>	+	+			+		+	+		+	+
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>										+	
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)							+		+		+
<i>Senna artemisioides</i> subsp. <i>helmsii</i>											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+				2%		+	+	+		+
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	1%	+			+	+		+	+	
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>								+			
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>											
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>									+	+	
<i>Senna notabilis</i>	+	+	1%		+				+	+	+
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>											
<i>Setaria verticillata</i>					+						
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)											
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)											
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)											
<i>Sida arenicola</i>											
<i>Sida arsinata</i>	+										
<i>Sida cardiophylla</i>			+				+	+			
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>											
<i>Sida</i> sp.											
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)											
<i>Solanum</i> aff. <i>sturtianum</i>											+
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>	+	+	+		+		+	+	+	+	+
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>	+	+	+		+	+			+	+	
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>	+										
<i>Streptoglossa bubakii</i>	+										

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Matrix of Species Found Within Each Site

Species	YA51	YA52	YA53	YA54	YA55	YA56	YA57	YA58	YA59	YA60	YA61
<i>Streptoglossa macrocephala</i>							+				
<i>Stylobasium spathulatum</i>											
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)											
<i>Tephrosia rosea</i> var. <i>glabrior</i>											
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>		+									
<i>Trianthema pilosa</i>								+			
<i>Trianthema triquetra</i> var. <i>triquetra</i>										+	
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>											
<i>Tribulus hirsutus</i>											
<i>Tribulus macrocarpus</i>											
<i>Tribulus occidentalis</i>											
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>			+		+	+		+	+		
<i>Triodia angusta</i>							+				
<i>Triodia basedowii</i>							20%	30%	20%		
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>						1%				+	
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>		5%	1%	10%	15%	65%	1%		1%	1%	15%
<i>Triodia schinzii</i>											15%
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>											
<i>Waltheria indica</i>									+		
<i>Yakirra australiensis</i> var. <i>australiensis</i>							+				



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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
Abutilon aff. lepidum (1) (MET 15 352)			+								
Abutilon aff. lepidum (4)											
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum					+	+					
Abutilon macrum											
Abutilon otocarpum											
Abutilon oxycarpum subsp. prostratum		+									
Abutilon trudgenii											
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)	10%	20%	3%	+	10%			10%	15%	+	
Acacia ancistrocarpa				+		+	15%				
Acacia aneura											
Acacia aneura var. aneura											
Acacia aneura var. conifera											
Acacia aneura var. intermedia	3%										
Acacia aneura var. pilbarana											
Acacia arida											
Acacia bivenosa											+
Acacia citrinoviridis		+								5%	
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba			+	1%							1%
Acacia hilliana											
Acacia inaequilatera											
Acacia ligulata											
Acacia maitlandii											
Acacia marramamba											
Acacia monticola											
Acacia pachyacra											+
Acacia paraneura											
Acacia pruinocarpa		+	3%		+				5%		+
Acacia pyrifolia											
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma	10%	+	2%	5%	10%	20%	2%	20%	+	2%	4%
Acacia sericophylla											

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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
Acacia stowardii (linear form)											
Acacia synchronicia	15%	3%	35%	+	+	+	+	2%	1%	+	+
Acacia tetragonophylla		2%	+			+			+		
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana											
Acacia tumida var. pilbarensis											
Acacia victoriae											
Acacia wanyu											
Acacia xiphophylla	+	2%									
Aerva javanica										3%	
Alternanthera angustifolia											
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus											
Amyema fitzgeraldii		+		+	+	+					
Amyema preissii											
Anthobolus leptomerioides			+	+				+			
Aristida contorta											
Aristida holathera var. holathera			+	+		+	+				
Aristida holathera var. latifolia											
Aristida inaequiglumis		+	+	5%	+	+	+			+	
Aristida ingrata											
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca	+		+								
Atriplex flabelliformis											
Bidens bipinnata											
Blumea tenella											
Boerhavia coccinea							+				
Boerhavia repleta											
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea											
Bothriochloa bladhii											
Bulbostylis barbata											
Bulbostylis burbidgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha					+						
Capparis spinosa var. nummularia						+					

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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
Capparis umbonata								+			
Cenchrus ciliaris	1%	5%	2%	10%	3%	1%	2%	7%		5%	+
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata		+	+							1%	
Chloris pumilio											
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax											
Cleome viscosa	+			+	+	+	+				
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides	+	+						+			
Corchorus sp.											
Corchorus tectus				+	+	+	+			+	
Corchorus tridens											
Corchorus trilocularis											
Corymbia aff. opaca											
Corymbia aspera											
Corymbia candida									1%		
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana											+
Corymbia opaca											
Corymbia semiclara											
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)		+									
Cullen lachnostachys											
Cullen leucanthum		+								5%	
Cullen leucochaites											
Cullen martinii											
Cymbopogon ambiguus					+						
Cymbopogon obtectus						+					+
Cymbopogon procerus											
Cynodon dactylon		+									

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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
Dactyloctenium radulans		+					+			+	
Dampiera candidans											
Dichanthium sericeum subsp. humilium											
Dicrastylis cordifolia											
Digitaria ctenantha											
Diplachne fusca subsp. fusca											
Dodonaea coriacea											
Dodonaea pachyneura											
Dodonaea petiolaris							+				
Duperreya commixta		+	+	+	+	+		+		+	
Dysphania rhadinostachya subsp. rhadinostachya											
Enchylaena tomentosa var. tomentosa		+		+				+	+		
Enneapogon caerulescens var. caerulescens											+
Enneapogon intermedius											
Enneapogon polyphyllus	+		+		+	+	+		+		
Enneapogon robustissimus											
Eragrostis aff. eriopoda (WAS site 963)							+				+
Eragrostis cumingii											
Eragrostis eriopoda											
Eragrostis falcata		+									
Eragrostis leptocarpa											
Eragrostis sp.						+					
Eragrostis tenellula											
Eragrostis xerophila			+								
Eremophila cuneifolia	2%		+			+					
Eremophila exilifolia											
Eremophila forrestii subsp. forrestii	+	+	1%				+				
Eremophila lanceolata							+				
Eremophila latrobei subsp. aff. filiformis											
Eremophila latrobei subsp. filiformis	+		+						1%		
Eremophila latrobei subsp. glabra											
Eremophila longifolia		8%		1%		+		+			
Eremophila sp.											
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
Eriachne aristidea					+						
Eriachne gardneri											
Eriachne lanata											
Eriachne mucronata (arid form) (MET 12 736)											
Eriachne mucronata (typical form)											
Eriachne tenuiculmis											
Eucalyptus gamophylla				+	+	1%	8%				6%

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APPENDIX I

Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
<i>Eucalyptus leucophloia</i> subsp. <i>leucophloia</i>											
<i>Eucalyptus socialis</i> subsp. <i>eucentrica</i>							5%				
<i>Eucalyptus trivalvis</i>						7%					
<i>Eucalyptus victrix</i>											
<i>Eucalyptus xerothermica</i>					5%	+					
<i>Eulalia aurea</i>						+				+	
<i>Euphorbia</i> aff. <i>australis</i> var. 1 (MET 12 337)											
<i>Euphorbia australis</i> (mid-green form)										+	
<i>Euphorbia biconvexa</i>											
<i>Euphorbia coghlanii</i>										+	
<i>Euphorbia</i> sp. (FMLMC-10)											
<i>Euphorbia</i> sp. (site 1089)										+	
<i>Euphorbia tannensis</i> subsp. <i>eremophila</i> (Hamersley form)						+					
<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>											
<i>Fimbristylis dichotoma</i>											
<i>Flaveria australasica</i>											
<i>Glycine canescens</i>											
<i>Gompholobium karjini</i>											
<i>Gomphrena affinis</i> subsp. <i>pilbarensis</i>											
<i>Gomphrena cunninghamii</i>											
<i>Gomphrena kanisii</i>											
<i>Gomphrena</i> sp.											
<i>Goodenia lamprosperma</i>											
<i>Goodenia microptera</i>											
<i>Goodenia nuda</i>											
<i>Goodenia prostrata</i>											
<i>Goodenia</i> sp.											
<i>Goodenia</i> sp. Sandy Creek (R.D. Royce 1653)											
<i>Goodenia stobbsiana</i>											
<i>Goodenia triodiophila</i>											
<i>Gossypium australe</i> (Burrup Peninsula form)											
<i>Gossypium robinsonii</i>											
<i>Grevillea striata</i>	+					+		+			
<i>Grevillea wickhamii</i> subsp. <i>hispidula</i>				+							
<i>Hakea chordophylla</i>											
<i>Hakea lorea</i> subsp. <i>lorea</i>			+	+					+		+
<i>Haloragis gossei</i> var. <i>gossei</i>											
<i>Heliotropium chrysocarpum</i>											
<i>Heliotropium inexplicitum</i>											
<i>Heliotropium paniculatum</i>											
<i>Hibiscus</i> aff. <i>coatesii</i>					+						

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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii			+	+	+	+		+	+		
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus											
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus											
Hibiscus sturtii var. platyklamys											
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea										+	
Indigofera georgei											
Indigofera linifolia											
Indigofera linnaei										+	
Indigofera monophylla (brown calyx form)											
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri							+			+	
Iseilema dolichotrichum											
Iseilema eremaeum		+					+				
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica							1%				
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia	+			+							
Maireana planifolia x villosa							+		+		
Maireana tomentosa											
Maireana triptera	5%	1%	2%								
Maireana villosa					+						
Malvastrum americanum		+									
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana											
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis											

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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
Paraneurachne muelleri		+				+					
Paspalidium clementii											
Paspalidium constrictum											
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8						+					
Perotis rara											
Petalostylis cassioides											
Petalostylis labicheoides											2%
Phyllanthus erwinii											
Phyllanthus maderaspatensis											
Pluchea dentex											
Pluchea dunlopii						+					
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea									+		
Psyrax latifolia	+								+		
Pterocaulon sphaeranthoides							+			+	
Ptilotus astrolasius var. astrolasius				+						+	
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus	+						+		+		
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides											
Ptilotus helipteroides var. helipteroides											
Ptilotus macrocephalus											
Ptilotus obovatus var. obovatus	+		1%		+	+	+	+	+		
Ptilotus polystachyus var. polystachyus						+					
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea	1%	1%	+					+			+
Rhyncharrhena linearis											
Rhynchosia minima var. australis		+				+				+	
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus							+			+	+
Salsola tragus subsp. tragus											
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae					+						
Scaevola spinescens		1%									
Scaevola spinescens (broad form)	+										
Schizachyrium fragile											



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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
<i>Sclerolaena cornishiana</i>	+	+	1%			+	+		+		
<i>Sclerolaena cuneata</i>	+										
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)		+	+				+	+	+		
<i>Senna artemisioides</i> subsp. <i>helmsii</i>				+	+	+					
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+	+	+				+		+		+
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	+	+	+	+	+		+	+		
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>	+										
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>	+										
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>											
<i>Senna notabilis</i>		+									
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>		+									
<i>Setaria verticillata</i>											
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)				+							
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)						+		+			
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)											
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>				+							
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>	+										
<i>Sida</i> sp.											
<i>Sida</i> sp. spiciform panicles (E. Leyland s.n. 14/8/90)											
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>	+	+	+	+	+	+	+		+		
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>		+			+		+			+	
<i>Stemodia grossa</i>				+		+					
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>											
<i>Streptoglossa bubakii</i>											

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Matrix of Species Found Within Each Site

Species	YA62	YA63	YA64	YA65	YA66	YA67	YA68	YA69	YA70	YAR02	YAR03
<i>Streptoglossa macrocephala</i>											
<i>Stylobasium spathulatum</i>					+		+	+			
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)											
<i>Tephrosia rosea</i> var. <i>glabrior</i>											
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>											
<i>Trianthema pilosa</i>											
<i>Trianthema triquetra</i> var. <i>triquetra</i>											
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>											
<i>Tribulus hirsutus</i>											
<i>Tribulus macrocarpus</i>											
<i>Tribulus occidentalis</i>											
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>											
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>											1%
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>			1%			1%	2%	20%			
<i>Triodia pungens</i>			1%	40%	30%						60%
<i>Triodia schinzii</i>				+							
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)							20%				
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>											
<i>Waltheria indica</i>											
<i>Yakirra australiensis</i> var. <i>australiensis</i>						+					

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Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
Abutilon aff. lepidum (1) (MET 15 352)											
Abutilon aff. lepidum (4)											
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum											
Abutilon macrum											
Abutilon otocarpum									+		
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii											
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)	4%	+									
Acacia ancistrocarpa	+	+		10%	1%		10%	20%	5%	6%	4%
Acacia aneura											
Acacia aneura var. aneura					5%			+			
Acacia aneura var. conifera											
Acacia aneura var. intermedia										2%	1%
Acacia aneura var. pilbarana				1%							
Acacia arida											
Acacia bivenosa											
Acacia citrinoviridis	20%	+			5%	1%					
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba			4%								
Acacia hilliana											
Acacia inaequilatera							+	+	2%		
Acacia ligulata											
Acacia maitlandii											
Acacia marramamba			10%			1%					
Acacia monticola											
Acacia pachyacra											
Acacia paraneura											
Acacia pruinocarpa		+		+		2%	1%	1%	+	1%	
Acacia pyrifolia											
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma	+	+								+	2%
Acacia sericophylla											

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Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
Acacia stowardii (linear form)											
Acacia synchronicia	2%	+				1%		+		+	1%
Acacia tetragonophylla	2%										+
Acacia trachycarpa subsp. tumida var. pilbarensis											1%
Acacia trudgeniana											
Acacia tumida var. pilbarensis				1%							
Acacia victoriae											
Acacia wanyu											
Acacia xiphophylla											
Aerva javanica			+			2%					
Alternanthera angustifolia											
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus											
Amyema fitzgeraldii	+										
Amyema preissii											
Anthobolus leptomerioides							+				
Aristida contorta											
Aristida holathera var. holathera											
Aristida holathera var. latifolia											
Aristida inaequiglumis		+					6%	10%	3%		1%
Aristida ingrata											
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca	1%		+							1%	
Atriplex flabelliformis											
Bidens bipinnata											
Blumea tenella											
Boerhavia coccinea			+								
Boerhavia repleta											
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea											
Bothriochloa bladhii											
Bulbostylis barbata											
Bulbostylis burbidgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha											
Capparis spinosa var. nummularia											

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Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
Capparis umbonata											
Cenchrus ciliaris	35%	75%	70%	40%	10%	60%	20%	25%	+	10%	3%
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata											
Chloris pumilio											
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax											
Cleome viscosa	+	+		1%		+	+	+	+		+
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides							+				
Corchorus sp.											
Corchorus tectus						+	+		+		
Corchorus tridens											
Corchorus trilocularis											
Corymbia aff. opaca											
Corymbia aspera									2%	3%	
Corymbia candida											
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana											
Corymbia opaca						2%					
Corymbia semiclara							+				
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum											
Cullen leucochaites											
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus											
Cymbopogon procerus											
Cynodon dactylon											

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Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
Dactyloctenium radulans		+			+						
Dampiera candidans											
Dichanthium sericeum subsp. humilium											
Dicrastylis cordifolia											
Digitaria ctenantha											
Diplachne fusca subsp. fusca											
Dodonaea coriacea											
Dodonaea pachyneura											
Dodonaea petiolaris											
Duperreya commixta	+			+							+
Dysphania rhadinostachya subsp. rhadinostachya											
Enchylaena tomentosa var. tomentosa											
Enneapogon caerulescens var. caerulescens											
Enneapogon intermedius											
Enneapogon polyphyllus	+						+	1%			
Enneapogon robustissimus											
Eragrostis aff. eriopoda (WAS site 963)							+				
Eragrostis cumingii											
Eragrostis eriopoda											
Eragrostis falcata											
Eragrostis leptocarpa											
Eragrostis sp.											
Eragrostis tenellula											
Eragrostis xerophila											
Eremophila cuneifolia											
Eremophila exilifolia											
Eremophila forrestii subsp. forrestii											
Eremophila lanceolata											
Eremophila latrobei subsp. aff. filiformis											
Eremophila latrobei subsp. filiformis										+	
Eremophila latrobei subsp. glabra											
Eremophila longifolia	1%						+			+	
Eremophila sp.											
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
Eriachne aristidea									+		
Eriachne gardneri											
Eriachne lanata											
Eriachne mucronata (arid form) (MET 12 736)											
Eriachne mucronata (typical form)											
Eriachne tenuiculmis											
Eucalyptus gamophylla											

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Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix						2%					
Eucalyptus xerothermica				1%	2%			3%	+	3%	5%
Eulalia aurea				3%							
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)		+			+	+					+
Euphorbia biconvexa											
Euphorbia coghlanii			+					+			+
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)											
Evolvulus alsinoides var. villosicalyx											
Fimbristylis dichotoma											
Flaveria australasica											
Glycine canescens											
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis											
Gomphrena cunninghamii											
Gomphrena kanisii											
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera											
Goodenia nuda											
Goodenia prostrata											
Goodenia sp.											
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)											
Gossypium robinsonii											
Grevillea striata											
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla											
Hakea lorea subsp. lorea											
Haloragis gossei var. gossei											
Heliotropium chrysocarpum											
Heliotropium inexplicitum											
Heliotropium paniculatum											
Hibiscus aff. coatesii											

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Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii											
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus											
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus											
Hibiscus sturtii var. platyklamys											
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea			+								
Indigofera georgei											
Indigofera linifolia			+								
Indigofera linnaei											
Indigofera monophylla (brown calyx form)			+				+				
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri					+						
Iseilema dolichotrichum											
Iseilema eremaeum	+				+						+
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia											
Maireana planifolia x villosa											
Maireana tomentosa											
Maireana triptera	+	+									
Maireana villosa											
Malvastrum americanum	+	+									
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana									+		
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis											



JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
Paraneurachne muelleri											
Paspalidium clementii											
Paspalidium constrictum											
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara											
Petalostylis cassioides											+
Petalostylis labicheoides											
Phyllanthus erwinii							+				
Phyllanthus maderaspatensis						+					
Pluchea dentex											
Pluchea dunlopia									+		
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea		+									
Psyrax latifolia											
Pterocaulon sphaeranthoides	+										
Ptilotus astrolasius var. astrolasius											
Ptilotus calostachyus var. calostachyus							+				
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus		+					+				
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides											
Ptilotus helipteroides var. helipteroides											
Ptilotus macrocephalus											
Ptilotus obovatus var. obovatus	+										+
Ptilotus polystachyus var. polystachyus											
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea	+									+	
Rhyncharrhena linearis											
Rhynchosia minima var. australis			+		+	+					
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus											
Salsola tragus subsp. tragus											
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae											
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
<i>Sclerolaena cornishiana</i>							+				
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)	+										+
<i>Senna artemisioides</i> subsp. <i>helmsii</i>											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	+								+		+
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	+	+								+	
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>				+				+			
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>											
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>											
<i>Senna notabilis</i>		+	+				+				
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>		+									
<i>Setaria verticillata</i>											
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)											
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)											
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)											
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>		+									
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>											
<i>Sida</i> sp.											
<i>Sida</i> sp. spiciform panicles (E. Leyland s.n. 14/8/90)											
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>		+					+				+
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>	+	+									
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>											
<i>Streptoglossa bubakii</i>		+									

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YAR05	YAR06	YAR07	YAR09	YAR10	YAR11	YAR12	YAR13	YAR14	YAR15	YAR16
<i>Streptoglossa macrocephala</i>											
<i>Stylobasium spathulatum</i>											
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)											
<i>Tephrosia rosea</i> var. <i>glabrior</i>			1%								
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>											
<i>Trianthema pilosa</i>											
<i>Trianthema triquetra</i> var. <i>triquetra</i>											
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>											
<i>Tribulus hirsutus</i>											
<i>Tribulus macrocarpus</i>											
<i>Tribulus occidentalis</i>											
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	+						+				
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>											
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>			10%				1%	5%	30%	5%	1%
<i>Triodia schinzii</i>											
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>					3%						
<i>Waltheria indica</i>			+			+					
<i>Yakirra australiensis</i> var. <i>australiensis</i>											+

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Abutilon aff. lepidum (1) (MET 15 352)											
Abutilon aff. lepidum (4)		+	1%								
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum											
Abutilon macrum											
Abutilon otocarpum											
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii											
Acacia adoxa var. adoxa			1%			+					
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)											
Acacia ancistrocarpa							20%	5%		1%	
Acacia aneura											
Acacia aneura var. aneura		20%	35%		1%	3%			6%		1%
Acacia aneura var. conifera											
Acacia aneura var. intermedia											
Acacia aneura var. pilbarana										1%	
Acacia arida											
Acacia bivenosa		30%	2%			8%		15%	4%		
Acacia citrinoviridis		6%		8%	3%			+			8%
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba						1%	10%	30%			
Acacia hilliana											
Acacia inaequilatera	+	1%	1%	4%							
Acacia ligulata		+									
Acacia maitlandii				+							
Acacia marramamba											
Acacia monticola		+									
Acacia pachyacra							4%				
Acacia paraneura											
Acacia pruinocarpa											
Acacia pyrifolia								2%			
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma	5%	1%		4%	25%		10%				1%
Acacia sericophylla											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Acacia stowardii (linear form)											
Acacia synchronicia	2%	4%			5%					+	1%
Acacia tetragonophylla											
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana								1%			
Acacia tumida var. pilbarensis											
Acacia victoriae					+				2%		
Acacia wanyu											
Acacia xiphophylla											
Aerva javanica											6%
Alternanthera angustifolia					2%						
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.				+							
Amaranthus undulatus											
Amyema fitzgeraldii											
Amyema preissii											
Anthobolus leptomerioides											
Aristida contorta		2%	1%							+	
Aristida holathera var. holathera											
Aristida holathera var. latifolia					2%						
Aristida inaequiglumis											
Aristida ingrata		2%				2%					
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca											
Atriplex flabelliformis											
Bidens bipinnata											
Blumea tenella											
Boerhavia coccinea									1%		+
Boerhavia repleta									+		
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea							3%	+			
Bothriochloa bladonii											
Bulbostylis barbata											
Bulbostylis burbridgeae											
Calandrinia ptychosperma											
Calytrix carinata			20%								
Capparis lasiantha											
Capparis spinosa var. nummularia											

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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Capparis umbonata											
Cenchrus ciliaris	1%	50%	15%	50%	60%	15%	30%	10%	25%	5%	40%
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata											
Chloris pumilio											5%
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax											
Cleome viscosa		2%		+	+			1%	1%		1%
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											3%
Corchorus lasiocarpus								+			
Corchorus lasiocarpus subsp. lasiocarpus						+					
Corchorus lasiocarpus subsp. parvus			+		+						
Corchorus sidoides											
Corchorus sp.											
Corchorus tectus											
Corchorus tridens											
Corchorus trilocularis											
Corymbia aff. opaca											
Corymbia aspera					2%						
Corymbia candida											
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana		2%						3%			
Corymbia opaca											
Corymbia semiclara											
Crotalaria cunninghamii											
Crotalaria medicaginea					+						
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum											
Cullen leucochaites											
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus		3%	2%					1%			
Cymbopogon procerus				1%		2%					
Cynodon dactylon											

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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Dactyloctenium radulans		1%			3%				3%	2%	
Dampiera candidans			+								
Dichanthium sericeum subsp. humilium											
Dicrastylis cordifolia							+				
Digitaria ctenantha											
Diplachne fusca subsp. fusca											
Dodonaea coriacea											
Dodonaea pachyneura											
Dodonaea petiolaris											
Duperreya commixta	+	1%	+								
Dysphania rhadinostachya subsp. rhadinostachya											
Enchylaena tomentosa var. tomentosa			nc								
Enneapogon caerulescens var. caerulescens		10%				2%					
Enneapogon intermedius											
Enneapogon polyphyllus			1%						5%	2%	
Enneapogon robustissimus											
Eragrostis aff. eriopoda (WAS site 963)					2%			6%			2%
Eragrostis cumingii											
Eragrostis eriopoda											
Eragrostis falcata											
Eragrostis leptocarpa											
Eragrostis sp.											
Eragrostis tenellula		1%		+							2%
Eragrostis xerophila											
Eremophila cuneifolia										2%	
Eremophila exilifolia											
Eremophila forrestii subsp. forrestii									1%		
Eremophila lanceolata											
Eremophila latrobei subsp. aff. filiformis											
Eremophila latrobei subsp. filiformis											
Eremophila latrobei subsp. glabra				1%		2%					
Eremophila longifolia											
Eremophila sp.											
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)				1%							
Eriachne aristidea											
Eriachne gardneri											
Eriachne lanata				3%							
Eriachne mucronata (arid form) (MET 12 736)											
Eriachne mucronata (typical form)											
Eriachne tenuiculmis				2%							
Eucalyptus gamophylla											

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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Eucalyptus leucophloia subsp. leucophloia			5%			1%					
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix				20%							15%
Eucalyptus xerothermica	5%										
Eulalia aurea	1%							+			
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)				+					+		
Euphorbia biconvexa											
Euphorbia coghlanii				+							
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)											
Evolvulus alsinoides var. villosicalyx											
Fimbristylis dichotoma											
Flaveria australasica											
Glycine canescens					+						
Gompholobium karjini			2%								
Gomphrena affinis subsp. pilbarensis											
Gomphrena cunninghamii											
Gomphrena kanisii		+							+		
Gomphrena sp.					+						
Goodenia lamprosperma	+										+
Goodenia microptera					+		+				
Goodenia nuda											
Goodenia prostrata											
Goodenia sp.					3%						
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobsiana		+						1%			
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)											+
Gossypium robinsonii				1%				1%			
Grevillea striata										1%	
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla											
Hakea lorea subsp. lorea		1%	+				+	1%			1%
Haloragis gossei var. gossei											
Heliotropium chrysocarpum											
Heliotropium inexplicitum											
Heliotropium paniculatum		+									
Hibiscus aff. coatesii											



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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii											
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus											
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus											
Hibiscus sturtii var. platyklamys					+			1%			
Hibiscus sturtii var. truncatus			+								
Hybanthus aurantiacus											
Indigofera colutea											
Indigofera georgei											
Indigofera linifolia											
Indigofera linnaei											
Indigofera monophylla (brown calyx form)											
Indigofera monophylla (FMR35-01)											+
Ipomoea muelleri		nc			+						
Iseilema dolichotrichum		+									
Iseilema eremaeum	+										
Isotropis atropurpurea							+	1%			
Jasminum didymum subsp. lineare											
Kennedia prorepens											
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei						3%					
Maireana planifolia			+	+				1%		+	
Maireana planifolia x villosa											
Maireana tomentosa								+			
Maireana triptera	+										
Maireana villosa											
Malvastrum americanum											
Malvastrum sp.											
Marsilea hirsuta					+						
Melaleuca glomerata											
Mukia maderaspatana								+			
Neptunia dimorphantha											
Nicotiana benthamiana						+					
Nicotiana occidentalis subsp. occidentalis											

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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Paraneurachne muelleri		3%				1%				+	
Paspalidium clementii											
Paspalidium constrictum											
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara					2%						
Petalostylis cassioides				2%			2%	6%			
Petalostylis labicheoides											
Phyllanthus erwinii											
Phyllanthus maderaspatensis	+			+	+						
Pluchea dentex											
Pluchea dunlopia											
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea					3%	+			+		
Psyrax latifolia											
Pterocaulon sphaeranthoides											
Ptilotus astrolasius var. astrolasius	+					+					
Ptilotus calostachyus var. calostachyus						+					
Ptilotus clementii			+								
Ptilotus exaltatus var. exaltatus										+	
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides											
Ptilotus helipteroides var. helipteroides											
Ptilotus macrocephalus											
Ptilotus obovatus var. obovatus			+								
Ptilotus polystachyus var. polystachyus											
Ptilotus rotundifolius			2%			6%					
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea											
Rhyncharrhena linearis											
Rhynchosia minima var. australis	2%			+	1%						1%
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus											
Salsola tragus subsp. tragus										+	
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae							+	3%			
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Sclerolaena cornishiana											
Sclerolaena cuneata											
Sclerolaena densiflora		+									
Sclerolaena eriacantha										+	
Senna artemisioides aff subsp oligophylla (thinly sericeous)											
Senna artemisioides subsp. helmsii									1%		
Senna artemisioides subsp. oligophylla											
Senna artemisioides subsp. oligophylla (thinly sericeous)											
Senna artemisioides subsp. oligophylla x helmsii							+	1%			
Senna charlesiana											
Senna glutinosa subsp. glutinosa	1%	10%				2%					
Senna glutinosa subsp. luerssenii										10%	
Senna glutinosa subsp. pruinos	2%	+				2%		+			
Senna glutinosa subsp. x luerssenii											
Senna notabilis	+				+						
Senna sp.											
Sesbania cannabina											
Setaria verticillata											
Sida aff. echinocarpa (MET 15,350)											
Sida aff. fibulifera (B64-13B)											
Sida aff. fibulifera (FMG 125-20)						+			+		
Sida aff. fibulifera (HD200-6)											
Sida aff. fibulifera (oblong; MET 15 220)											
Sida arenicola											
Sida arsinata											
Sida cardiophylla											
Sida echinocarpa		1%									
Sida pilbarensis (ferruginous form)			+								
Sida platycalyx											
Sida sp.											+
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)											
Solanum aff. sturtianum											
Solanum horridum											
Solanum lasiophyllum	+		+			+	+		1%	1%	+
Solanum phlomoides											
Solanum sturtianum											
Sporobolus australasicus											
Stemodia grossa				+							+
Stenopetalum decipiens			1%			1%					
Stenopetalum nutans											
Streptoglossa bubakii					+						

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Matrix of Species Found Within Each Site

Species	YAR17	YB01	YB02	YB03	YB04	YB05	YB06	YB07	YB08	YB09	YB10
Streptoglossa macrocephala											
Stylobasium spathulatum							1%				
Tephrosia aff. supina (MET 12,357)											
Tephrosia rosea var. glabrior				1%		+					1%
Themeda triandra				+	5%	3%					
Trachymene oleracea subsp. oleracea											
Tragus australianus										+	
Trianthera pilosa								+			
Trianthera triquetra var. triquetra											
Tribulus angustifolius											
Tribulus astrocarpus											
Tribulus cistoides											
Tribulus hirsutus											
Tribulus macrocarpus					+		+	1%			
Tribulus occidentalis											
Tribulus suberosus											
Trichodesma zeylanicum var. zeylanicum					+						
Triodia angusta											
Triodia basedowii											
Triodia epactia											
Triodia lanigera								60%			
Triodia longiceps										80%	
Triodia pungens		50%	20%	5%			50%		1%		6%
Triodia schinzii							5%				
Triodia sp. Shovelanna Hill (S. van Leeuwen 3835)			20%			5%					
Triodia wiseana						80%					
Vachellia farnesiana											
Waltheria indica											
Yakirra australiensis var. australiensis											

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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
Abutilon aff. lepidum (1) (MET 15 352)											
Abutilon aff. lepidum (4)						1%					
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum										2%	
Abutilon macrum										2%	
Abutilon otocarpum											
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii											
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)										40%	10%
Acacia ancistrocarpa		2%									1%
Acacia aneura											
Acacia aneura var. aneura											
Acacia aneura var. conifera										+	20%
Acacia aneura var. intermedia											50%
Acacia aneura var. pilbarana											
Acacia arida											
Acacia bivenosa					2%						
Acacia citrinoviridis	4%	25%	2%			2%					
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba		15%									
Acacia hilliana											
Acacia inaequilatera	2%										
Acacia ligulata					1%	2%					
Acacia maitlandii											
Acacia marramamba	5%										
Acacia monticola											
Acacia pachyacra											
Acacia paraneura						3%	10%				
Acacia pruinocarpa											
Acacia pyrifolia	5%										
Acacia rhodophloia			+								
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma	10%	5%	30%	35%	40%	6%	10%				
Acacia sericophylla											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
Acacia stowardii (linear form)											
Acacia synchronica					2%	35%	20%		10%	2%	2%
Acacia tetragonophylla									40%	1%	5%
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana											
Acacia tumida var. pilbarensis											
Acacia victoriae											
Acacia wanyu							10%				
Acacia xiphophylla											
Aerva javanica									+		
Alternanthera angustifolia											
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus											
Amyema fitzgeraldii											
Amyema preissii							+				
Anthobolus leptomerioides											
Aristida contorta								1%			
Aristida holathera var. holathera											
Aristida holathera var. latifolia		2%									
Aristida inaequiglumis											
Aristida ingrata								30%			
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca											
Atriplex flabelliformis											
Bidens bipinnata											
Blumea tenella											
Boerhavia coccinea							+		2%		
Boerhavia repleta											
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea				2%	1%						
Bothriochloa bladonii		2%									
Bulbostylis barbata											
Bulbostylis burbidgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha											
Capparis spinosa var. nummularia											

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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
Capparis umbonata											
Cenchrus ciliaris	90%	75%	80%	30%	80%	10%	15%	10%	50%		2%
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum										1%	
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata										30%	10%
Chloris pumilio											
Chloris virgata											
Chrysocephalum pterochaetum				+							
Chrysopogon fallax								2%		12%	50%
Cleome viscosa						2%	+		1%	2%	
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides											
Corchorus sp.											
Corchorus tectus											
Corchorus tridens											
Corchorus trilocularis											
Corymbia aff. opaca											
Corymbia aspera									1%		
Corymbia candida		15%									
Corymbia deserticola subsp. deserticola											
Corymbia hamersleyana											
Corymbia opaca											
Corymbia semiclara	1%										
Crotalaria cunninghamii											
Crotalaria medicaginea		+									
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys											
Cullen leucanthum											
Cullen leucochaites											
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus											
Cymbopogon procerus											
Cynodon dactylon											

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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
Dactyloctenium radulans						2%	20%	2%	5%	5%	2%
Dampiera candidans											
Dichanthium sericeum subsp. humilius											
Dicrastylis cordifolia											
Digitaria ctenantha											
Diplachne fusca subsp. fusca											
Dodonaea coriacea											
Dodonaea pachyneura											
Dodonaea petiolaris											
Duperreya commixta											
Dysphania rhadinostachya subsp. rhadinostachya											
Enchylaena tomentosa var. tomentosa											1%
Enneapogon caeruleus var. caeruleus											
Enneapogon intermedius											
Enneapogon polyphyllus						2%			1%		5%
Enneapogon robustissimus											
Eragrostis aff. eriopoda (WAS site 963)	5%	5%		8%					2%		
Eragrostis cumingii											
Eragrostis eriopoda									1%		
Eragrostis falcata											
Eragrostis leptocarpa											
Eragrostis sp.											
Eragrostis tenellula							+		1%		
Eragrostis xerophila											
Eremophila cuneifolia											
Eremophila exilifolia											
Eremophila forrestii subsp. forrestii						3%		10%	3%		
Eremophila lanceolata											1%
Eremophila latrobei subsp. aff. filiformis											
Eremophila latrobei subsp. filiformis											
Eremophila latrobei subsp. glabra											
Eremophila longifolia											
Eremophila sp.											
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
Eriachne aristidea											
Eriachne gardneri											
Eriachne lanata											
Eriachne mucronata (arid form) (MET 12 736)											
Eriachne mucronata (typical form)											
Eriachne tenuiculmis											
Eucalyptus gamophylla											



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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix			2%								
Eucalyptus xerothermica											
Eulalia aurea											
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)	+										
Euphorbia biconvexa											
Euphorbia coghlanii	+										
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)											
Evolvulus alsinoides var. villosicalyx											
Fimbristylis dichotoma										1%	1%
Flaveria australasica											
Glycine canescens											
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis											
Gomphrena cunninghamii	2%										
Gomphrena kanisii						1%			2%	2%	1%
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera											
Goodenia nuda											
Goodenia prostrata								+	2%	2%	
Goodenia sp.										8%	3%
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)			1%								
Gossypium robinsonii			+								
Grevillea striata								5%	+		
Grevillea wickhamii subsp. hispidula											
Hakea chordophylla		1%									
Hakea lorea subsp. lorea					1%			1%	1%		
Haloragis gossei var. gossei											
Heliotropium chrysocarpum											
Heliotropium inexplicitum											
Heliotropium paniculatum											
Hibiscus aff. coatesii											

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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus				+							
Hibiscus burtonii											
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus											
Hibiscus sturtii var. aff. truncatus (site 1 016)											
Hibiscus sturtii var. grandiflorus											
Hibiscus sturtii var. platyklamys				1%							
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea											
Indigofera georgei											
Indigofera linifolia											
Indigofera linnaei											
Indigofera monophylla (brown calyx form)											
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri						1%	3%				
Iseilema dolichotrichum											
Iseilema eremaeum										+	
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens					2%						
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia							+	1%	2%	1%	1%
Maireana planifolia x villosa											
Maireana tomentosa											
Maireana triptera											
Maireana villosa									2%		1%
Malvastrum americanum										2%	
Malvastrum sp.					2%						
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana											
Neptunia dimorphantha											
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis											

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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
Paraneurachne muelleri		5%									
Paspalidium clementii											
Paspalidium constrictum											
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara											
Petalostylis cassioides			5%								
Petalostylis labicheoides											
Phyllanthus erwinii											
Phyllanthus maderaspatensis											
Pluchea dentex											
Pluchea dunlopii											
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea							2%	+	1%		
Psyrax latifolia											
Pterocaulon sphaeranthoides											
Ptilotus astrolasius var. astrolasius	+									2%	
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus											
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides										1%	2%
Ptilotus helipteroides var. helipteroides								+			
Ptilotus macrocephalus											
Ptilotus obovatus var. obovatus						+			4%		
Ptilotus polystachyus var. polystachyus											
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea								2%		4%	4%
Rhyncharrhena linearis											
Rhynchosia minima var. australis	1%		+				3%		2%	2%	2%
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus										1%	
Salsola tragus subsp. tragus			+								
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae				4%							
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
<i>Sclerolaena cornishiana</i>	+	1%		1%	2%	+	3%	6%	2%	4%	
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>							+				
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)						10%			8%	12%	
<i>Senna artemisioides</i> subsp. <i>helmsii</i>		+					2%	3%	3%	1%	8%
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)											
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	5%	3%			2%	5%		3%		18%	2%
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>											
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>											
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>											
<i>Senna notabilis</i>							+				
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>											
<i>Setaria verticillata</i>											
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)											
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)		1%	+	2%	1%						2%
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)	+										
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>			+	1%							
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>											
<i>Sida</i> sp.	+										
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)											
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>	+			1%			1%	2%	2%		1%
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>											
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>										2%	
<i>Streptoglossa bubakii</i>											

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Matrix of Species Found Within Each Site

Species	YB11	YB12	YB13	YB14	YB15	YB16	YB17	YB18	YB19	YB20	YB21
<i>Streptoglossa macrocephala</i>											
<i>Stylobasium spathulatum</i>				3%	15%	1%					
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)											
<i>Tephrosia rosea</i> var. <i>glabrior</i>											
<i>Themeda triandra</i>			2%					1%			
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>							+		4%		
<i>Trianthema pilosa</i>					+			1%			
<i>Trianthema triquetra</i> var. <i>triquetra</i>											
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>										+	
<i>Tribulus cistoides</i>		+									1%
<i>Tribulus hirsutus</i>			+								
<i>Tribulus macrocarpus</i>						+					
<i>Tribulus occidentalis</i>											
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>										1%	
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>											
<i>Triodia epactia</i>								5%			
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>	2%	10%		50%	17%	80%	10%	5%	5%		
<i>Triodia schinzii</i>											
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>			1%								
<i>Waltheria indica</i>											
<i>Yakirra australiensis</i> var. <i>australiensis</i>											

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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
Abutilon aff. lepidum (1) (MET 15 352)						+					
Abutilon aff. lepidum (4)											
Abutilon fraseri											
Abutilon lepidum											
Abutilon leucopetalum											
Abutilon macrum	+										
Abutilon otocarpum				+	+						
Abutilon oxycarpum subsp. prostratum											
Abutilon trudgenii											
Acacia adoxa var. adoxa											
Acacia adsurgens											
Acacia aff. aneura (narrow fine veined; site 1259)	3%		3%				2%				
Acacia ancistrocarpa							20%		13%		20%
Acacia aneura											
Acacia aneura var. aneura	10%					2%		2%	8%	8%	
Acacia aneura var. conifera					1%						
Acacia aneura var. intermedia				5%							4%
Acacia aneura var. pilbarana											
Acacia arida											
Acacia bivenosa									2%		
Acacia citrinoviridis				8%							1%
Acacia colei var. colei											
Acacia coriacea subsp. pendens											
Acacia dictyophleba											
Acacia hilliana											
Acacia inaequilatera											
Acacia ligulata											
Acacia maitlandii											
Acacia marramamba											
Acacia monticola											
Acacia pachyacra											
Acacia paraneura								7%			
Acacia pruinocarpa					4%	25%		15%	15%	8%	5%
Acacia pyrifolia					1%						
Acacia rhodophloia											
Acacia sclerosperma											
Acacia sclerosperma subsp. sclerosperma				5%				1%			
Acacia sericophylla						1%					

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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
Acacia stowardii (linear form)											
Acacia synchronicia	20%	10%	40%	30%		1%	5%				
Acacia tetragonophylla	2%			3%			1%		8%	8%	3%
Acacia trachycarpa subsp. tumida var. pilbarensis											
Acacia trudgeniana											
Acacia tumida var. pilbarensis											
Acacia victoriae						2%					
Acacia wanyu											
Acacia xiphophylla											
Aerva javanica											
Alternanthera angustifolia											
Alternanthera nana											
Alysicarpus muelleri											
Amaranthus sp.											
Amaranthus undulatus											
Amyema fitzgeraldii											
Amyema preissii											
Anthobolus leptomerioides											
Aristida contorta		4%		30%		10%		2%			
Aristida holathera var. holathera											
Aristida holathera var. latifolia	20%										
Aristida inaequiglumis											
Aristida ingrata								+			
Aristida latifolia											
Aristida sp.											
Atalaya hemiglauca											
Atriplex flabelliformis											
Bidens bipinnata											
Blumea tenella											
Boerhavia coccinea			2%			3%			1%		1%
Boerhavia repleta		+									
Boerhavia sp.											
Bonamia media var. villosa											
Bonamia rosea										+	
Bothriochloa bladhii											
Bulbostylis barbata											
Bulbostylis burbidgeae											
Calandrinia ptychosperma											
Calytrix carinata											
Capparis lasiantha											
Capparis spinosa var. nummularia											

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
Capparis umbonata											
Cenchrus ciliaris		50%	40%	20%	45%	15%			30%		5%
Cenchrus setiger											
Cheilanthes sieberi subsp. sieberi											
Chenopodium melanocarpum											
Chenopodium melanocarpum forma melanocarpum											
Chloris pectinata			+	2%							
Chloris pumilio											
Chloris virgata											
Chrysocephalum pterochaetum											
Chrysopogon fallax	20%	30%	30%	30%	35%	45%		5%		35%	2%
Cleome viscosa				+	8%	+				2%	+
Convolvulus angustissimus subsp. angustissimus											
Corchorus crozophorifolius											
Corchorus lasiocarpus											
Corchorus lasiocarpus subsp. lasiocarpus											
Corchorus lasiocarpus subsp. parvus											
Corchorus sidoides											
Corchorus sp.									1%		
Corchorus tectus							+		+	+	
Corchorus tridens											
Corchorus trilocularis											
Corymbia aff. opaca											
Corymbia aspera							1%				
Corymbia candida											
Corymbia deserticola subsp. deserticola										1%	
Corymbia hamersleyana										5%	
Corymbia opaca											
Corymbia semiclara									15%		
Crotalaria cunninghamii											
Crotalaria medicaginea											
Cucumis melo subsp. agrestis											
Cullen aff.lachnostachys (MET 15,154)											
Cullen lachnostachys				1%	3%						
Cullen leucanthum											
Cullen leucochaites	+										
Cullen martinii											
Cymbopogon ambiguus											
Cymbopogon obtectus								4%		2%	
Cymbopogon procerus											
Cynodon dactylon											



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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
Dactyloctenium radulans		3%	2%	3%	2%	2%				2%	1%
Dampiera candidans											
Dichanthium sericeum subsp. humilium											
Dicrastylis cordifolia											
Digitaria ctenantha											
Diplachne fusca subsp. fusca				+							
Dodonaea coriacea											
Dodonaea pachyneura											
Dodonaea petiolaris											
Duperreya commixta										1%	
Dysphania rhadinostachya subsp. rhadinostachya											
Enchylaena tomentosa var. tomentosa											
Enneapogon caeruleus var. caeruleus											
Enneapogon intermedius			2%								
Enneapogon polyphyllus				2%						+	
Enneapogon robustissimus											
Eragrostis aff. eriopoda (WAS site 963)				1%							
Eragrostis cumingii					3%						
Eragrostis eriopoda											
Eragrostis falcata											
Eragrostis leptocarpa				1%	10%						
Eragrostis sp.											
Eragrostis tenellula			1%	+	1%	1%					
Eragrostis xerophila	20%	10%						15%			
Eremophila cuneifolia											
Eremophila exilifolia											
Eremophila forrestii subsp. forrestii									+		
Eremophila lanceolata	12%			8%		5%	2%		+		
Eremophila latrobei subsp. aff. filiformis											
Eremophila latrobei subsp. filiformis											
Eremophila latrobei subsp. glabra											
Eremophila longifolia									5%	1%	
Eremophila sp.											
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)											
Eriachne aristidea					1%					1%	
Eriachne gardneri											
Eriachne lanata											
Eriachne mucronata (arid form) (MET 12 736)											
Eriachne mucronata (typical form)											
Eriachne tenuiculmis											
Eucalyptus gamophylla											

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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
Eucalyptus leucophloia subsp. leucophloia											
Eucalyptus socialis subsp. eucentrica											
Eucalyptus trivalvis											
Eucalyptus victrix											
Eucalyptus xerothermica											
Eulalia aurea			1%					3%		2%	
Euphorbia aff. australis var. 1 (MET 12 337)											
Euphorbia australis (mid-green form)				+		1%					
Euphorbia biconvexa											
Euphorbia coghlanii											
Euphorbia sp. (FMLMC-10)											
Euphorbia sp. (site 1089)											
Euphorbia tannensis subsp. eremophila (Hamersley form)											
Evolvulus alsinoides var. villosicalyx											
Fimbristylis dichotoma											
Flaveria australasica											
Glycine canescens									+		
Gompholobium karjini											
Gomphrena affinis subsp. pilbarensis											
Gomphrena cunninghamii											
Gomphrena kanisii	4%	3%	+	2%	+	+					1%
Gomphrena sp.											
Goodenia lamprosperma											
Goodenia microptera			+								
Goodenia nuda	+			+	1%	2%		+			
Goodenia prostrata	1%	2%	+	2%							
Goodenia sp.				2%	2%						
Goodenia sp. Sandy Creek (R.D. Royce 1653)											
Goodenia stobbsiana											
Goodenia triodiophila											
Gossypium australe (Burrup Peninsula form)											
Gossypium robinsonii											
Grevillea striata											
Grevillea wickhamii subsp. hispidula								+		1%	
Hakea chordophylla											
Hakea lorea subsp. lorea		2%	2%						2%	2%	2%
Haloragis gossei var. gossei											
Heliotropium chrysocarpum											
Heliotropium inexplicitum											
Heliotropium paniculatum				+	1%	2%		+			
Hibiscus aff. coatesii											

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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
Hibiscus aff. coatesii (site 693)											
Hibiscus aff. platyklamys (site 1139)											
Hibiscus brachychlaenus											
Hibiscus burtonii											
Hibiscus leptocladus											
Hibiscus platyklamys											
Hibiscus sturtii var. aff. grandiflorus		+				2%					
Hibiscus sturtii var. aff. truncatus (site 1 016)										+	
Hibiscus sturtii var. grandiflorus	1%										
Hibiscus sturtii var. platyklamys											
Hibiscus sturtii var. truncatus											
Hybanthus aurantiacus											
Indigofera colutea	+										4%
Indigofera georgei											
Indigofera linifolia											
Indigofera linnaei					+						
Indigofera monophylla (brown calyx form)											
Indigofera monophylla (FMR35-01)											
Ipomoea muelleri	+		4%	2%	1%	1%	1%				
Iseilema dolichotrichum											
Iseilema eremaeum					1%	2%					
Isotropis atropurpurea											
Jasminum didymum subsp. lineare											
Kennedia prorepens					1%						
Keraudrenia nephrosperma											
Keraudrenia velutina subsp. elliptica											
Lepidium pedicellosum											
Maireana georgei											
Maireana planifolia											
Maireana planifolia x villosa											
Maireana tomentosa											
Maireana triptera											
Maireana villosa		3%	+	1%		2%		2%		16%	
Malvastrum americanum											
Malvastrum sp.											
Marsilea hirsuta											
Melaleuca glomerata											
Mukia maderaspatana								+	+		
Neptunia dimorphantha					+						
Nicotiana benthamiana											
Nicotiana occidentalis subsp. occidentalis											

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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
Paraneurachne muelleri											
Paspalidium clementii											
Paspalidium constrictum											
Paspalidium rarum											
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8											
Perotis rara											1%
Petalostylis cassioides											
Petalostylis labicheoides											
Phyllanthus erwinii											
Phyllanthus maderaspatensis			1%		1%						
Pluchea dentex											
Pluchea dunlopia			2%				8%	2%			
Polycarpaea longiflora											
Portulaca conspicua											
Portulaca oleracea			2%	+	1%	1%					
Psyrdrax latifolia											+
Pterocaulon sphaeranthoides					2%	1%					+
Ptilotus astrolasius var. astrolasius	2%				8%				3%		
Ptilotus calostachyus var. calostachyus											
Ptilotus clementii											
Ptilotus exaltatus var. exaltatus		+	2%	1%			+				
Ptilotus gaudichaudii var. gaudichaudii											
Ptilotus gomphrenoides var. gomphrenoides	1%		4%	3%	+						
Ptilotus helipteroides var. helipteroides				2%							
Ptilotus macrocephalus				+		+					
Ptilotus obovatus var. obovatus						1%					
Ptilotus polystachyus var. polystachyus											
Ptilotus rotundifolius											
Ptilotus schwartzii var. schwartzii											
Rhagodia eremaea	5%		1%						18%	2%	2%
Rhyncharrhena linearis											
Rhynchosia minima var. australis	2%			2%		+					2%
Rostellularia adscendens subsp. adscendens var. latifolia											
Rulingia luteiflora											
Salsola tragus											
Salsola tragus subsp. tragus						+	+				
Scaevola acacioides											
Scaevola parvifolia subsp. pilbarae											
Scaevola spinescens											
Scaevola spinescens (broad form)											
Schizachyrium fragile											

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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
<i>Sclerolaena cornishiana</i>				1%		1%				8%	20%
<i>Sclerolaena cuneata</i>											
<i>Sclerolaena densiflora</i>											
<i>Sclerolaena eriacantha</i>											
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)		4%	8%				3%				
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	15%				3%		5%	10%		3%	
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>					+						
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)						5%					
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	10%	10%	10%	15%	10%	10%	60%	10%	15%	4%	25%
<i>Senna charlesiana</i>											
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>											
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>											
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>											
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>										1%	
<i>Senna notabilis</i>					1%	+				+	2%
<i>Senna</i> sp.											
<i>Sesbania cannabina</i>											
<i>Setaria verticillata</i>											
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)											+
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)											
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)		1%	2%	2%	4%	2%		+	1%		+
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)											
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)											
<i>Sida arenicola</i>											
<i>Sida arsinata</i>											
<i>Sida cardiophylla</i>											
<i>Sida echinocarpa</i>											
<i>Sida pilbarensis</i> (ferruginous form)											
<i>Sida platycalyx</i>				1%							1%
<i>Sida</i> sp.											
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)											
<i>Solanum</i> aff. <i>sturtianum</i>											
<i>Solanum horridum</i>											
<i>Solanum lasiophyllum</i>	1%	1%	2%	+	+	1%		+	+	+	
<i>Solanum phlomoides</i>											
<i>Solanum sturtianum</i>											
<i>Sporobolus australasicus</i>											
<i>Stemodia grossa</i>											
<i>Stenopetalum decipiens</i>											
<i>Stenopetalum nutans</i>											
<i>Streptoglossa bubakii</i>		+	2%		3%						

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Matrix of Species Found Within Each Site

Species	YB22	YB23	YB24	YB25	YB26	YB27	YB28	YB29	YB30	YB31	YB32
<i>Streptoglossa macrocephala</i>								4%			
<i>Stylobasium spathulatum</i>											
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)										1%	+
<i>Tephrosia rosea</i> var. <i>glabrior</i>				5%							
<i>Themeda triandra</i>											
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>											
<i>Tragus australianus</i>	5%	6%	4%	2%		1%					1%
<i>Trianthema pilosa</i>											
<i>Trianthema triquetra</i> var. <i>triquetra</i>		+	+								
<i>Tribulus angustifolius</i>											
<i>Tribulus astrocarpus</i>											
<i>Tribulus cistoides</i>			1%		1%						
<i>Tribulus hirsutus</i>											
<i>Tribulus macrocarpus</i>											+
<i>Tribulus occidentalis</i>											
<i>Tribulus suberosus</i>											
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	1%				+	1%	1%	1%			
<i>Triodia angusta</i>											
<i>Triodia basedowii</i>											
<i>Triodia epactia</i>											
<i>Triodia lanigera</i>											
<i>Triodia longiceps</i>											
<i>Triodia pungens</i>											
<i>Triodia schinzii</i>											
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)											
<i>Triodia wiseana</i>											
<i>Vachellia farnesiana</i>											
<i>Waltheria indica</i>										+	
<i>Yakirra australiensis</i> var. <i>australiensis</i>											

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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
Abutilon aff. lepidum (1) (MET 15 352)										
Abutilon aff. lepidum (4)										
Abutilon fraseri										
Abutilon lepidum										
Abutilon leucopetalum										
Abutilon macrum				+						
Abutilon otocarpum										
Abutilon oxycarpum subsp. prostratum										
Abutilon trudgenii										
Acacia adoxa var. adoxa										
Acacia adsurgens	2%									
Acacia aff. aneura (narrow fine veined; site 1259)				3%	2%		5%			2%
Acacia ancistrocarpa	10%	25%				2%	14%			25%
Acacia aneura			5%							
Acacia aneura var. aneura			6%		6%			2%		
Acacia aneura var. conifera								3%		
Acacia aneura var. intermedia										2%
Acacia aneura var. pilbarana						3%				
Acacia arida										
Acacia bivenosa										
Acacia citrinoviridis	10%									
Acacia colei var. colei										
Acacia coriacea subsp. pendens										
Acacia dictyophleba		1%						1%		
Acacia hilliana										
Acacia inaequilatera										
Acacia ligulata										
Acacia maitlandii										
Acacia marramamba										
Acacia monticola										
Acacia pachyacra	5%									
Acacia paraneura	3%									3%
Acacia pruinocarpa	10%		3%	2%		3%	2%			
Acacia pyrifolia										
Acacia rhodophloia										
Acacia sclerosperma										
Acacia sclerosperma subsp. sclerosperma										
Acacia sericophylla										

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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
Acacia stowardii (linear form)										
Acacia synchronicia	10%			2%				2%	1%	
Acacia tetragonophylla	1%		5%		2%		3%	1%	15%	3%
Acacia trachycarpa subsp. tumida var. pilbarensis										
Acacia trudgeniana										
Acacia tumida var. pilbarensis										
Acacia victoriae										
Acacia wanyu										
Acacia xiphophylla										
Aerva javanica										
Alternanthera angustifolia										
Alternanthera nana										
Alysicarpus muelleri										
Amaranthus sp.										
Amaranthus undulatus										
Amyema fitzgeraldii										
Amyema preissii										
Anthobolus leptomerioides										
Aristida contorta		2%	5%		2%			1%		1%
Aristida holathera var. holathera										
Aristida holathera var. latifolia										
Aristida inaequiglumis										
Aristida ingrata										
Aristida latifolia										
Aristida sp.										
Atalaya hemiglauca										
Atriplex flabelliformis										
Bidens bipinnata										
Blumea tenella										
Boerhavia coccinea				1%			+	2%	1%	
Boerhavia repleta					+				+	+
Boerhavia sp.										
Bonamia media var. villosa										
Bonamia rosea									+	
Bothriochloa bladhi										
Bulbostylis barbata									+	
Bulbostylis burbidgeae										
Calandrinia ptychosperma										
Calytrix carinata										
Capparis lasiantha										
Capparis spinosa var. nummularia										



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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
Capparis umbonata										
Cenchrus ciliaris	3%	45%		2%	2%	2%	2%	1%		
Cenchrus setiger										
Cheilanthes sieberi subsp. sieberi										
Chenopodium melanocarpum										
Chenopodium melanocarpum forma melanocarpum										
Chloris pectinata				10%						
Chloris pumilio										
Chloris virgata										
Chrysocephalum pterochaetum										
Chrysopogon fallax	40%	45%		80%	50%	8%	50%		2%	60%
Cleome viscosa				+						
Convolvulus angustissimus subsp. angustissimus										
Corchorus crozophorifolius										
Corchorus lasiocarpus										
Corchorus lasiocarpus subsp. lasiocarpus										
Corchorus lasiocarpus subsp. parvus										
Corchorus sidoides		8%								
Corchorus sp.										
Corchorus tectus		5%					1%			
Corchorus tridens										
Corchorus trilocularis										
Corymbia aff. opaca								1%		
Corymbia aspera						2%				
Corymbia candida										
Corymbia deserticola subsp. deserticola										4%
Corymbia hamersleyana							2%			
Corymbia opaca										
Corymbia semiclara										
Crotalaria cunninghamii										
Crotalaria medicaginea										
Cucumis melo subsp. agrestis										
Cullen aff.lachnostachys (MET 15,154)										
Cullen lachnostachys				2%					+	
Cullen leucanthum										
Cullen leucochaites										
Cullen martinii										
Cymbopogon ambiguus										
Cymbopogon obtectus										
Cymbopogon procerus										
Cynodon dactylon										

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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
Dactyloctenium radulans		2%		2%	+	1%	1%	2%	+	+
Dampiera candidans										
Dichanthium sericeum subsp. humilium										
Dicrastylis cordifolia										
Digitaria ctenantha										
Diplachne fusca subsp. fusca										
Dodonaea coriacea										
Dodonaea pachyneura										
Dodonaea petiolaris										5%
Duperreya commixta										+
Dysphania rhadinostachya subsp. rhadinostachya										
Enchylaena tomentosa var. tomentosa										
Enneapogon caeruleascens var. caeruleascens										
Enneapogon intermedius										
Enneapogon polyphyllus			1%							1%
Enneapogon robustissimus										
Eragrostis aff. eriopoda (WAS site 963)	8%									
Eragrostis cumingii										
Eragrostis eriopoda										
Eragrostis falcata										
Eragrostis leptocarpa										
Eragrostis sp.										
Eragrostis tenellula				2%					+	
Eragrostis xerophila										
Eremophila cuneifolia										
Eremophila exilifolia										
Eremophila forrestii subsp. forrestii										
Eremophila lanceolata			6%	2%	2%	3%	3%	1%	2%	
Eremophila latrobei subsp. aff. filiformis										
Eremophila latrobei subsp. filiformis										
Eremophila latrobei subsp. glabra										
Eremophila longifolia										
Eremophila sp.						1%				
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)										
Eriachne aristidea				+	+	1%	3%			
Eriachne gardneri										
Eriachne lanata										
Eriachne mucronata (arid form) (MET 12 736)										
Eriachne mucronata (typical form)										
Eriachne tenuiculmis										
Eucalyptus gamophylla										

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
Eucalyptus leucophloia subsp. leucophloia										
Eucalyptus socialis subsp. eucentrica										
Eucalyptus trivalvis										
Eucalyptus victrix										
Eucalyptus xerothermica										
Eulalia aurea						1%	2%			
Euphorbia aff. australis var. 1 (MET 12 337)										
Euphorbia australis (mid-green form)							+	+	+	
Euphorbia biconvexa										
Euphorbia coghlanii										
Euphorbia sp. (FMLMC-10)										
Euphorbia sp. (site 1089)										
Euphorbia tannensis subsp. eremophila (Hamersley form)										
Evolvulus alsinoides var. villosicalyx										
Fimbristylis dichotoma										
Flaveria australasica										
Glycine canescens										
Gompholobium karjini										
Gomphrena affinis subsp. pilbarensis										
Gomphrena cunninghamii										
Gomphrena kanisii				+	+	3%	+			
Gomphrena sp.					+					
Goodenia lamprosperma										+
Goodenia microptera			+	1%		1%				2%
Goodenia nuda										+
Goodenia prostrata										
Goodenia sp.										
Goodenia sp. Sandy Creek (R.D. Royce 1653)										
Goodenia stobbsiana										
Goodenia triodiophila										
Gossypium australe (Burrup Peninsula form)	2%			8%						
Gossypium robinsonii										
Grevillea striata										
Grevillea wickhamii subsp. hispidula								1%		
Hakea chordophylla										
Hakea lorea subsp. lorea	2%				+		2%	2%	1%	
Haloragis gossei var. gossei										
Heliotropium chrysocarpum										
Heliotropium inexplicitum										
Heliotropium paniculatum				1%						
Hibiscus aff. coatesii										

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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
Hibiscus aff. coatesii (site 693)										
Hibiscus aff. platyklamys (site 1139)										
Hibiscus brachychlaenus										
Hibiscus burtonii										
Hibiscus leptocladus										
Hibiscus platyklamys										
Hibiscus sturtii var. aff. grandiflorus					1%				2%	
Hibiscus sturtii var. aff. truncatus (site 1 016)										
Hibiscus sturtii var. grandiflorus			+							
Hibiscus sturtii var. platyklamys							+			2%
Hibiscus sturtii var. truncatus										
Hybanthus aurantiacus										
Indigofera colutea										
Indigofera georgei										
Indigofera linifolia										
Indigofera linnaei										
Indigofera monophylla (brown calyx form)										
Indigofera monophylla (FMR35-01)										
Ipomoea muelleri		1%	2%	2%	+	+	+	1%	+	3%
Iseilema dolichotrichum										
Iseilema eremaeum	3%	2%	10%	5%	1%		1%			
Isotropis atropurpurea										
Jasminum didymum subsp. lineare										
Kennedia prorepens										
Keraudrenia nephrosperma										
Keraudrenia velutina subsp. elliptica										
Lepidium pedicellosum										
Maireana georgei										
Maireana planifolia										
Maireana planifolia x villosa										
Maireana tomentosa										
Maireana triptera										
Maireana villosa	6%		6%		1%	4%	6%	4%		14%
Malvastrum americanum				+						
Malvastrum sp.										
Marsilea hirsuta										
Melaleuca glomerata										
Mukia maderaspatana			1%	+	+					+
Neptunia dimorphantha				+	+					
Nicotiana benthamiana										
Nicotiana occidentalis subsp. occidentalis										

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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
Paraneurachne muelleri										
Paspalidium clementii										
Paspalidium constrictum										
Paspalidium rarum			1%							
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8										
Perotis rara					1%					
Petalostylis cassioides										
Petalostylis labicheoides										
Phyllanthus erwinii										
Phyllanthus maderaspatensis				1%						
Pluchea dentex										
Pluchea dunlopii				1%			+		4%	
Polycarpha longiflora										
Portulaca conspicua										
Portulaca oleracea								+	+	+
Psyrax latifolia					+					
Pterocaulon sphaeranthoides			+	2%	2%		1%		1%	2%
Ptilotus astrolasius var. astrolasius	1%	2%								
Ptilotus calostachyus var. calostachyus										
Ptilotus clementii										
Ptilotus exaltatus var. exaltatus					+	+	+			
Ptilotus gaudichaudii var. gaudichaudii										
Ptilotus gomphrenoides var. gomphrenoides			1%	+						
Ptilotus helipteroides var. helipteroides										
Ptilotus macrocephalus										
Ptilotus obovatus var. obovatus				2%						4%
Ptilotus polystachyus var. polystachyus										
Ptilotus rotundifolius										
Ptilotus schwartzii var. schwartzii										
Rhagodia eremaea	6%						2%		2%	
Rhyncharrhena linearis										
Rhynchosia minima var. australis			3%	2%						
Rostellularia adscendens subsp. adscendens var. latifolia										
Rulingia luteiflora										
Salsola tragus										
Salsola tragus subsp. tragus					+	+	1%		+	
Scaevola acacioides										
Scaevola parvifolia subsp. pilbarae										
Scaevola spinescens										
Scaevola spinescens (broad form)										
Schizachyrium fragile										

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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
<i>Sclerolaena cornishiana</i>	5%		1%		1%		2%	5%	40%	40%
<i>Sclerolaena cuneata</i>										
<i>Sclerolaena densiflora</i>										
<i>Sclerolaena eriacantha</i>										
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)										
<i>Senna artemisioides</i> subsp. <i>helmsii</i>			2%	10%	8%	4%	3%		4%	3%
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>										
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)										
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	15%	5%	25%	10%	10%	10%	18%	5%	6%	2%
<i>Senna charlesiana</i>										
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>				nc						
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>					+					
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>							16%			
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>										
<i>Senna notabilis</i>		1%		1%				1%	1%	
<i>Senna</i> sp.										
<i>Sesbania cannabina</i>										
<i>Setaria verticillata</i>										
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)		5%		2%						
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)										
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	1%		1%		1%	1%	2%	1%		
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)										
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)										
<i>Sida arenicola</i>										
<i>Sida arsinata</i>										
<i>Sida cardiophylla</i>										
<i>Sida echinocarpa</i>										
<i>Sida pilbarensis</i> (ferruginous form)										
<i>Sida platycalyx</i>				1%			+	+		
<i>Sida</i> sp.										
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)										
<i>Solanum</i> aff. <i>sturtianum</i>										
<i>Solanum horridum</i>										
<i>Solanum lasiophyllum</i>	1%	+	3%		+	3%	3%	+	2%	2%
<i>Solanum phlomoides</i>										
<i>Solanum sturtianum</i>										
<i>Sporobolus australasicus</i>										
<i>Stemodia grossa</i>										
<i>Stenopetalum decipiens</i>										
<i>Stenopetalum nutans</i>										
<i>Streptoglossa bubakii</i>				+						

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Matrix of Species Found Within Each Site

Species	YB33	YB34	YB35	YB36	YB37	YB38	YB39	YB40	YB41	YB42
<i>Streptoglossa macrocephala</i>										
<i>Stylobasium spathulatum</i>										
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)					+				2%	
<i>Tephrosia rosea</i> var. <i>glabrior</i>										
<i>Themeda triandra</i>										
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>										
<i>Tragus australianus</i>						+			1%	
<i>Trianthema pilosa</i>										
<i>Trianthema triquetra</i> var. <i>triquetra</i>										
<i>Tribulus angustifolius</i>										
<i>Tribulus astrocarpus</i>										
<i>Tribulus cistoides</i>								2%		
<i>Tribulus hirsutus</i>										
<i>Tribulus macrocarpus</i>										
<i>Tribulus occidentalis</i>										
<i>Tribulus suberosus</i>										+
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>				8%		+	+			
<i>Triodia angusta</i>										
<i>Triodia basedowii</i>				nc						
<i>Triodia epactia</i>										
<i>Triodia lanigera</i>										
<i>Triodia longiceps</i>										
<i>Triodia pungens</i>	3%	1%							+	
<i>Triodia schinzii</i>										
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)										
<i>Triodia wiseana</i>										
<i>Vachellia farnesiana</i>										
<i>Waltheria indica</i>										
<i>Yakirra australiensis</i> var. <i>australiensis</i>										

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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
Abutilon aff. lepidum (1) (MET 15 352)									
Abutilon aff. lepidum (4)									
Abutilon fraseri									
Abutilon lepidum									
Abutilon leucopetalum									
Abutilon macrum	+							2%	
Abutilon otocarpum				2%					
Abutilon oxycarpum subsp. prostratum									
Abutilon trudgenii									
Acacia adoxa var. adoxa									
Acacia adsurgens			3%						
Acacia aff. aneura (narrow fine veined; site 1259)	30%			2%	15%	3%	25%		10%
Acacia ancistrocarpa	12%	20%	40%	25%	20%			2%	20%
Acacia aneura								20%	
Acacia aneura var. aneura					2%				
Acacia aneura var. conifera	15%								
Acacia aneura var. intermedia						2%			
Acacia aneura var. pilbarana									
Acacia arida									
Acacia bivenosa									
Acacia citrinoviridis	10%								14%
Acacia colei var. colei									
Acacia coriacea subsp. pendens									2%
Acacia dictyophleba		40%		5%					2%
Acacia hilliana									
Acacia inaequilatera									1%
Acacia ligulata									
Acacia maitlandii									
Acacia marramamba									
Acacia monticola									
Acacia pachyacra		1%	20%	5%					
Acacia paraneura									
Acacia pruinocarpa	10%	10%	15%	15%			10%	15%	2%
Acacia pyrifolia									
Acacia rhodophloia									
Acacia sclerosperma									
Acacia sclerosperma subsp. sclerosperma					2%			3%	
Acacia sericophylla									2%



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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
Acacia stowardii (linear form)					2%				
Acacia synchronicia						5%	35%	15%	
Acacia tetragonophylla	6%			1%	4%	8%	15%	15%	2%
Acacia trachycarpa subsp. tumida var. pilbarensis									
Acacia trudgeniana									
Acacia tumida var. pilbarensis									
Acacia victoriae									
Acacia wanyu									
Acacia xiphophylla									
Aerva javanica									
Alternanthera angustifolia									
Alternanthera nana									
Alysicarpus muelleri									
Amaranthus sp.									
Amaranthus undulatus									
Amyema fitzgeraldii									
Amyema preissii									
Anthobolus leptomerioides									
Aristida contorta					1%				
Aristida holathera var. holathera									
Aristida holathera var. latifolia									
Aristida inaequiglumis									
Aristida ingrata									
Aristida latifolia								2%	20%
Aristida sp.									
Atalaya hemiglauca									
Atriplex flabelliformis									
Bidens bipinnata									
Blumea tenella									
Boerhavia coccinea	+		+	+	1%	+	3%		
Boerhavia repleta		+				+			
Boerhavia sp.									
Bonamia media var. villosa									
Bonamia rosea	4%		2%						
Bothriochloa bladonii									
Bulbostylis barbata									
Bulbostylis burbridgeae									
Calandrinia Ptychosperma									
Calytrix carinata									
Capparis lasiantha									
Capparis spinosa var. nummularia									

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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
Capparis umbonata									
Cenchrus ciliaris	2%	40%				2%	2%	1%	30%
Cenchrus setiger									
Cheilanthes sieberi subsp. sieberi									
Chenopodium melanocarpum									
Chenopodium melanocarpum forma melanocarpum									
Chloris pectinata								2%	
Chloris pumilio									
Chloris virgata									
Chrysocephalum pterochaetum									
Chrysopogon fallax	10%		35%	10%	5%				
Cleome viscosa	+	+	+	+	+	3%	1%	2%	+
Convolvulus angustissimus subsp. angustissimus									
Corchorus crozophorifolius									
Corchorus lasiocarpus									
Corchorus lasiocarpus subsp. lasiocarpus									
Corchorus lasiocarpus subsp. parvus									
Corchorus sidoides									
Corchorus sp.									
Corchorus tectus		2%	2%						
Corchorus tridens									
Corchorus trilocularis									
Corymbia aff. opaca									
Corymbia aspera									
Corymbia candida									
Corymbia deserticola subsp. deserticola									
Corymbia hamersleyana									
Corymbia opaca									
Corymbia semiclara									
Crotalaria cunninghamii									
Crotalaria medicaginea									
Cucumis melo subsp. agrestis									
Cullen aff.lachnostachys (MET 15,154)									
Cullen lachnostachys									+
Cullen leucanthum									
Cullen leucochaites									
Cullen martinii									
Cymbopogon ambiguus									
Cymbopogon obtectus									
Cymbopogon procerus									
Cynodon dactylon									

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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
Dactyloctenium radulans				+	2%	1%	2%	1%	
Dampiera candidans									
Dichanthium sericeum subsp. humilius									+
Dicrastylis cordifolia									
Digitaria ctenantha									
Diplachne fusca subsp. fusca									
Dodonaea coriacea									
Dodonaea pachyneura									
Dodonaea petiolaris	1%			30%					
Duperreya commixta									
Dysphania rhadinostachya subsp. rhadinostachya									
Enchylaena tomentosa var. tomentosa									
Enneapogon caerulescens var. caerulescens									
Enneapogon intermedius									+
Enneapogon polyphyllus	+				1%	2%	1%	+	
Enneapogon robustissimus					1%				
Eragrostis aff. eriopoda (WAS site 963)			2%						2%
Eragrostis cumingii									
Eragrostis eriopoda									
Eragrostis falcata									
Eragrostis leptocarpa									
Eragrostis sp.									
Eragrostis tenellula						1%		+	
Eragrostis xerophila						6%			
Eremophila cuneifolia									
Eremophila exilifolia									
Eremophila forrestii subsp. forrestii									
Eremophila lanceolata				1%	+	1%		1%	
Eremophila latrobei subsp. aff. filiformis									
Eremophila latrobei subsp. filiformis									
Eremophila latrobei subsp. glabra									
Eremophila longifolia									
Eremophila sp.				8%					
Eremophila sp. Ophthalmia Range (D. Brearley s.n. 20/3/2004)									
Eriachne aristidea									2%
Eriachne gardneri									
Eriachne lanata									
Eriachne mucronata (arid form) (MET 12 736)									
Eriachne mucronata (typical form)									
Eriachne tenuiculmis									
Eucalyptus gamophylla									

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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
Eucalyptus leucophloia subsp. leucophloia									
Eucalyptus socialis subsp. eucentrica									
Eucalyptus trivalvis									
Eucalyptus victrix									
Eucalyptus xerothermica									
Eulalia aurea									
Euphorbia aff. australis var. 1 (MET 12 337)									
Euphorbia australis (mid-green form)									1%
Euphorbia biconvexa									
Euphorbia coghlanii									
Euphorbia sp. (FMLMC-10)									
Euphorbia sp. (site 1089)									
Euphorbia tannensis subsp. eremophila (Hamersley form)									
Evolvulus alsinoides var. villosicalyx									
Fimbristylis dichotoma									
Flaveria australasica									
Glycine canescens									
Gompholobium karjini									
Gomphrena affinis subsp. pilbarensis									
Gomphrena cunninghamii									
Gomphrena kanisii									
Gomphrena sp.									
Goodenia lamprosperma									
Goodenia microptera									
Goodenia nuda									
Goodenia prostrata									
Goodenia sp.									
Goodenia sp. Sandy Creek (R.D. Royce 1653)									
Goodenia stobbsiana									
Goodenia triodiophila									
Gossypium australe (Burrup Peninsula form)						1%			
Gossypium robinsonii									
Grevillea striata									
Grevillea wickhamii subsp. hispidula									
Hakea chordophylla									
Hakea lorea subsp. lorea									
Haloragis gossei var. gossei									
Heliotropium chrysocarpum									
Heliotropium inexplicitum									
Heliotropium paniculatum									1%
Hibiscus aff. coatesii									

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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
Hibiscus aff. coatesii (site 693)									
Hibiscus aff. platyklamys (site 1139)									
Hibiscus brachychlaenus									
Hibiscus burtonii				2%					
Hibiscus leptocladus									
Hibiscus platyklamys									
Hibiscus sturtii var. aff. grandiflorus									
Hibiscus sturtii var. aff. truncatus (site 1 016)									
Hibiscus sturtii var. grandiflorus									
Hibiscus sturtii var. platyklamys		3%	5%						
Hibiscus sturtii var. truncatus									
Hybanthus aurantiacus									
Indigofera colutea									
Indigofera georgei									
Indigofera linifolia									
Indigofera linnaei									
Indigofera monophylla (brown calyx form)									
Indigofera monophylla (FMR35-01)									
Ipomoea muelleri				1%	+			1%	+
Iseilema dolichotrichum									
Iseilema eremaeum			1%						
Isotropis atropurpurea									
Jasminum didymum subsp. lineare									
Kennedia prorepens									
Keraudrenia nephrosperma									
Keraudrenia velutina subsp. elliptica									
Lepidium pedicellosum									
Maireana georgei									
Maireana planifolia									
Maireana planifolia x villosa									
Maireana tomentosa									
Maireana triptera									
Maireana villosa	+		2%	5%	6%			2%	
Malvastrum americanum								2%	
Malvastrum sp.									
Marsilea hirsuta									
Melaleuca glomerata									
Mukia maderaspatana				+					
Neptunia dimorphantha									
Nicotiana benthamiana									
Nicotiana occidentalis subsp. occidentalis									

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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
Paraneurachne muelleri			2%	2%					
Paspalidium clementii									
Paspalidium constrictum									
Paspalidium rarum									
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8									
Perotis rara									
Petalostylis cassioides									
Petalostylis labicheoides									
Phyllanthus erwinii									
Phyllanthus maderaspatensis					+				+
Pluchea dentex									
Pluchea dunlopilii									
Polycarpaea longiflora									
Portulaca conspicua									
Portulaca oleracea		+			+	3%	1%	+	
Psyrdrax latifolia	2%			1%	1%		2%		1%
Pterocaulon sphaeranthoides									
Ptilotus astrolasius var. astrolasius	1%					2%			
Ptilotus calostachyus var. calostachyus									
Ptilotus clementii									
Ptilotus exaltatus var. exaltatus				+			+	+	
Ptilotus gaudichaudii var. gaudichaudii									
Ptilotus gomphrenoides var. gomphrenoides						2%		+	
Ptilotus helipteroides var. helipteroides									
Ptilotus macrocephalus									
Ptilotus obovatus var. obovatus				8%	2%				
Ptilotus polystachyus var. polystachyus									
Ptilotus rotundifolius									
Ptilotus schwartzii var. schwartzii									
Rhagodia eremaea	1%	+		1%		2%	+	5%	
Rhyncharrhena linearis									
Rhynchosia minima var. australis	1%	2%					1%		5%
Rostellularia adscendens subsp. adscendens var. latifolia								+	
Rulingia luteiflora									
Salsola tragus									
Salsola tragus subsp. tragus	+								
Scaevola acacioides									
Scaevola parvifolia subsp. pilbarae									
Scaevola spinescens									
Scaevola spinescens (broad form)									
Schizachyrium fragile									

JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT  
APPENDIX I

Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
<i>Sclerolaena cornishiana</i>	20%	5%	5%		3%	45%	8%	3%	2%
<i>Sclerolaena cuneata</i>									
<i>Sclerolaena densiflora</i>									
<i>Sclerolaena eriacantha</i>									
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)									
<i>Senna artemisioides</i> subsp. <i>helmsii</i>	2%		3%	+	5%				
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>									
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)									
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	6%	2%	8%	+	4%	20%	5%	5%	35%
<i>Senna charlesiana</i>									
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>									
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>									
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>									
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>						+			
<i>Senna notabilis</i>					3%				
<i>Senna</i> sp.									
<i>Sesbania cannabina</i>									
<i>Setaria verticillata</i>							+	+	
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)									
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)									
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)	6%	5%		+		5%	1%	+	2%
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)						5%			
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)									
<i>Sida arenicola</i>									
<i>Sida arsinata</i>									
<i>Sida cardiophylla</i>			8%						
<i>Sida echinocarpa</i>									
<i>Sida pilbarensis</i> (ferruginous form)									
<i>Sida platycalyx</i>					1%				
<i>Sida</i> sp.									
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)									
<i>Solanum</i> aff. <i>sturtianum</i>									
<i>Solanum horridum</i>									
<i>Solanum lasiophyllum</i>	+	1%	1%	+	+				+
<i>Solanum phlomoides</i>									
<i>Solanum sturtianum</i>				2%					
<i>Sporobolus australasicus</i>									
<i>Stemodia grossa</i>									
<i>Stenopetalum decipiens</i>									
<i>Stenopetalum nutans</i>									
<i>Streptoglossa bubakii</i>									

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Matrix of Species Found Within Each Site

Species	YB43	YB44	YB45	YB46	YB47	YB48	YB49	YB50	YB51
<i>Streptoglossa macrocephala</i>									
<i>Stylobasium spathulatum</i>									
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)		3%			1%	4%			1%
<i>Tephrosia rosea</i> var. <i>glabrior</i>									
<i>Themeda triandra</i>									
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>									
<i>Tragus australianus</i>				+		2%			
<i>Trianthera pilosa</i>									
<i>Trianthera triquetra</i> var. <i>triquetra</i>									
<i>Tribulus angustifolius</i>									
<i>Tribulus astrocarpus</i>						3%			
<i>Tribulus cistoides</i>						3%	1%		
<i>Tribulus hirsutus</i>									
<i>Tribulus macrocarpus</i>									
<i>Tribulus occidentalis</i>									
<i>Tribulus suberosus</i>									
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>		+			+				
<i>Triodia angusta</i>									
<i>Triodia basedowii</i>									
<i>Triodia epactia</i>									
<i>Triodia lanigera</i>			50%						
<i>Triodia longiceps</i>									
<i>Triodia pungens</i>		50%		5%	1%	2%			
<i>Triodia schinzii</i>									
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)									
<i>Triodia wiseana</i>									
<i>Vachellia farnesiana</i>									
<i>Waltheria indica</i>									2%
<i>Yakirra australiensis</i> var. <i>australiensis</i>									



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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
Abutilon aff. lepidum (1) (MET 15 352)								2%
Abutilon aff. lepidum (4)				+			3%	
Abutilon fraseri								
Abutilon lepidum								
Abutilon leucopetalum								
Abutilon macrum								
Abutilon otocarpum								
Abutilon oxycarpum subsp. prostratum								
Abutilon trudgenii								
Acacia adoxa var. adoxa								
Acacia adsurgens								
Acacia aff. aneura (narrow fine veined; site 1259)		15%		25%			45%	5%
Acacia ancistrocarpa	2%	20%	8%		12%			
Acacia aneura								
Acacia aneura var. aneura		2%						
Acacia aneura var. conifera				1%	8%			
Acacia aneura var. intermedia								
Acacia aneura var. pilbarana								
Acacia arida								
Acacia bivenosa								
Acacia citrinoviridis	2%							25%
Acacia colei var. colei								
Acacia coriacea subsp. pendens								
Acacia dictyophleba	50%		1%					
Acacia hilliana								
Acacia inaequilatera								
Acacia ligulata								
Acacia maitlandii								
Acacia marramamba								
Acacia monticola								
Acacia pachyacra								
Acacia paraneura								
Acacia pruinocarpa	1%	1%	10%					1%
Acacia pyrifolia								
Acacia rhodophloia								
Acacia sclerosperma								
Acacia sclerosperma subsp. sclerosperma	2%							20%
Acacia sericophylla	4%		2%					

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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
Acacia stowardii (linear form)								
Acacia synchronicia				+	60%	40%	20%	15%
Acacia tetragonophylla		1%	2%		35%	5%		10%
Acacia trachycarpa subsp. tumida var. pilbarensis								
Acacia trudgeniana								
Acacia tumida var. pilbarensis								
Acacia victoriae								
Acacia wanyu								
Acacia xiphophylla								
Aerva javanica					1%	+		
Alternanthera angustifolia								
Alternanthera nana								
Alysicarpus muelleri								
Amaranthus sp.								
Amaranthus undulatus								
Amyema fitzgeraldii								
Amyema preissii								
Anthobolus leptomerioides			+					
Aristida contorta								
Aristida holathera var. holathera								
Aristida holathera var. latifolia								
Aristida inaequiglumis		10%	40%					
Aristida ingrata								
Aristida latifolia	10%	40%						
Aristida sp.								
Atalaya hemiglauca								
Atriplex flabelliformis								
Bidens bipinnata						+		
Blumea tenella								
Boerhavia coccinea		+				1%		
Boerhavia repleta				+		2%		
Boerhavia sp.								
Bonamia media var. villosa								
Bonamia rosea			1%					
Bothriochloa bladonii								
Bulbostylis barbata								
Bulbostylis burbridgeae								
Calandrinia ptychosperma								
Calytrix carinata								
Capparis lasiantha								
Capparis spinosa var. nummularia								

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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
Capparis umbonata								
Cenchrus ciliaris	70%	20%	2%	+	12%	10%		16%
Cenchrus setiger								
Cheilanthes sieberi subsp. sieberi								
Chenopodium melanocarpum								
Chenopodium melanocarpum forma melanocarpum								
Chloris pectinata								
Chloris pumilio								
Chloris virgata								
Chrysocephalum pterochaetum								
Chrysopogon fallax								
Cleome viscosa	+			+	+	+	8%	5%
Convolvulus angustissimus subsp. angustissimus								
Corchorus crozophorifolius								
Corchorus lasiocarpus								
Corchorus lasiocarpus subsp. lasiocarpus								
Corchorus lasiocarpus subsp. parvus								
Corchorus sidoides			2%					
Corchorus sp.								
Corchorus tectus								
Corchorus tridens								
Corchorus trilocularis								
Corymbia aff. opaca								
Corymbia aspera								
Corymbia candida								
Corymbia deserticola subsp. deserticola								
Corymbia hamersleyana								
Corymbia opaca								
Corymbia semiclara								
Crotalaria cunninghamii								
Crotalaria medicaginea								
Cucumis melo subsp. agrestis								
Cullen aff.lachnostachys (MET 15,154)								
Cullen lachnostachys								
Cullen leucanthum					+			
Cullen leucochaites								
Cullen martinii								
Cymbopogon ambiguus								
Cymbopogon obtectus								
Cymbopogon procerus								
Cynodon dactylon								

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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
<i>Dactyloctenium radulans</i>	+	+		2%	+	1%	2%	1%
<i>Dampiera candidans</i>								
<i>Dichanthium sericeum</i> subsp. <i>humilius</i>								+
<i>Dicrastylis cordifolia</i>								
<i>Digitaria ctenantha</i>								
<i>Diplachne fusca</i> subsp. <i>fusca</i>								
<i>Dodonaea coriacea</i>			3%					
<i>Dodonaea pachyneura</i>								
<i>Dodonaea petiolaris</i>		3%	2%					
<i>Duperreya commixta</i>		+	+					
<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>								
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>								
<i>Enneapogon caerulescens</i> var. <i>caerulescens</i>								
<i>Enneapogon intermedius</i>								
<i>Enneapogon polyphyllus</i>	+	+		+			3%	
<i>Enneapogon robustissimus</i>								
<i>Eragrostis</i> aff. <i>eriopoda</i> (WAS site 963)								
<i>Eragrostis cumingii</i>								
<i>Eragrostis eriopoda</i>								
<i>Eragrostis falcata</i>								
<i>Eragrostis leptocarpa</i>								
<i>Eragrostis</i> sp.								
<i>Eragrostis tenellula</i>								4%
<i>Eragrostis xerophila</i>						2%		
<i>Eremophila cuneifolia</i>			+					
<i>Eremophila exilifolia</i>								
<i>Eremophila forrestii</i> subsp. <i>forrestii</i>								
<i>Eremophila lanceolata</i>		2%		2%	+		1%	
<i>Eremophila latrobei</i> subsp. aff. <i>filiformis</i>								
<i>Eremophila latrobei</i> subsp. <i>filiformis</i>								
<i>Eremophila latrobei</i> subsp. <i>glabra</i>								
<i>Eremophila longifolia</i>								
<i>Eremophila</i> sp.								
<i>Eremophila</i> sp. <i>Ophthalmia</i> Range (D. Brearley s.n. 20/3/2004)								
<i>Eriachne aristidea</i>								
<i>Eriachne gardneri</i>								
<i>Eriachne lanata</i>								
<i>Eriachne mucronata</i> (arid form) (MET 12 736)								
<i>Eriachne mucronata</i> (typical form)								
<i>Eriachne tenuiculmis</i>								
<i>Eucalyptus gamophylla</i>								

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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
Eucalyptus leucophloia subsp. leucophloia								
Eucalyptus socialis subsp. eucentrica								
Eucalyptus trivalvis								
Eucalyptus victrix								
Eucalyptus xerothermica								18%
Eulalia aurea		2%						
Euphorbia aff. australis var. 1 (MET 12 337)								
Euphorbia australis (mid-green form)		+		+		+		
Euphorbia biconvexa								
Euphorbia coghlanii								
Euphorbia sp. (FMLMC-10)								
Euphorbia sp. (site 1089)								
Euphorbia tannensis subsp. eremophila (Hamersley form)								
Evolvulus alsinoides var. villosicalyx								
Fimbristylis dichotoma								
Flaveria australasica								
Glycine canescens								
Gompholobium karijini								
Gomphrena affinis subsp. pilbarensis								
Gomphrena cunninghamii								
Gomphrena kanisii								
Gomphrena sp.								
Goodenia lamprosperma								
Goodenia microptera								
Goodenia nuda				+				
Goodenia prostrata								
Goodenia sp.								
Goodenia sp. Sandy Creek (R.D. Royce 1653)								
Goodenia stobbsiana								
Goodenia triodiophila								
Gossypium australe (Burrup Peninsula form)					+	2%		
Gossypium robinsonii								
Grevillea striata								
Grevillea wickhamii subsp. hispidula								
Hakea chordophylla								
Hakea lorea subsp. lorea								
Haloragis gossei var. gossei								
Heliotropium chrysocarpum								
Heliotropium inexplicitum								
Heliotropium paniculatum		+						
Hibiscus aff. coatesii								

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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
Hibiscus aff. coatesii (site 693)								
Hibiscus aff. platyklamys (site 1139)								
Hibiscus brachychlaenus								
Hibiscus burtonii		2%						
Hibiscus leptocladus								
Hibiscus platyklamys								
Hibiscus sturtii var. aff. grandiflorus								
Hibiscus sturtii var. aff. truncatus (site 1 016)								
Hibiscus sturtii var. grandiflorus								
Hibiscus sturtii var. platyklamys	2%							
Hibiscus sturtii var. truncatus								
Hybanthus aurantiacus								
Indigofera colutea								
Indigofera georgei								
Indigofera linifolia								
Indigofera linnaei								
Indigofera monophylla (brown calyx form)								
Indigofera monophylla (FMR35-01)								
Ipomoea muelleri		+		3%		2%	2%	+
Iseilema dolichotrichum								
Iseilema eremaeum		4%		+	+		2%	1%
Isotropis atropurpurea								
Jasminum didymum subsp. lineare								
Kennedia prorepens								
Keraudrenia nephrosperma								
Keraudrenia velutina subsp. elliptica								
Lepidium pedicellosum								
Maireana georgei								
Maireana planifolia								
Maireana planifolia x villosa								
Maireana tomentosa								
Maireana triptera								
Maireana villosa		20%	+	1%				2%
Malvastrum americanum								1%
Malvastrum sp.								
Marsilea hirsuta								
Melaleuca glomerata								
Mukia maderaspatana		+					+	+
Neptunia dimorphantha								
Nicotiana benthamiana								
Nicotiana occidentalis subsp. occidentalis								

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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
Paraneurachne muelleri								
Paspalidium clementii								
Paspalidium constrictum								
Paspalidium rarum								
Peplidium sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8					+			
Perotis rara								
Petalostylis cassioides								
Petalostylis labicheoides								
Phyllanthus erwinii								
Phyllanthus maderaspatensis				+	+			+
Pluchea dentex								
Pluchea dunlopia								
Polycarpha longiflora								
Portulaca conspicua								
Portulaca oleracea				1%		1%		+
Psyrax latifolia			3%					
Pterocaulon sphaeranthoides		1%		+				
Ptilotus astrolasius var. astrolasius								
Ptilotus calostachyus var. calostachyus								
Ptilotus clementii								
Ptilotus exaltatus var. exaltatus		+		+			+	
Ptilotus gaudichaudii var. gaudichaudii								
Ptilotus gomphrenoides var. gomphrenoides				5%	2%	1%	3%	
Ptilotus helipteroides var. helipteroides								
Ptilotus macrocephalus								
Ptilotus obovatus var. obovatus								
Ptilotus polystachyus var. polystachyus								
Ptilotus rotundifolius								
Ptilotus schwartzii var. schwartzii								
Rhagodia eremaea	3%	+			4%		1%	
Rhyncharrhena linearis								
Rhynchosia minima var. australis				2%	2%	4%	1%	
Rostellularia adscendens subsp. adscendens var. latifolia								+
Rulingia luteiflora								
Salsola tragus								
Salsola tragus subsp. tragus								
Scaevola acacioides								
Scaevola parvifolia subsp. pilbarae			4%					
Scaevola spinescens								
Scaevola spinescens (broad form)								
Schizachyrium fragile								

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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
<i>Sclerolaena cornishiana</i>		5%				8%	3%	
<i>Sclerolaena cuneata</i>								
<i>Sclerolaena densiflora</i>								
<i>Sclerolaena eriacantha</i>								
<i>Senna artemisioides</i> aff subsp <i>oligophylla</i> (thinly sericeous)								
<i>Senna artemisioides</i> subsp. <i>helmsii</i>		2%		1%				
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>								
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> (thinly sericeous)								
<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x <i>helmsii</i>	4%	8%		2%	15%	20%	8%	2%
<i>Senna charlesiana</i>								
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>	2%		3%					
<i>Senna glutinosa</i> subsp. <i>luerssenii</i>								
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>								
<i>Senna glutinosa</i> subsp. x <i>luerssenii</i>								
<i>Senna notabilis</i>		+						
<i>Senna</i> sp.								
<i>Sesbania cannabina</i>								
<i>Setaria verticillata</i>								
<i>Sida</i> aff. <i>echinocarpa</i> (MET 15,350)								
<i>Sida</i> aff. <i>fibulifera</i> (B64-13B)								
<i>Sida</i> aff. <i>fibulifera</i> (FMG 125-20)		3%		1%	3%		+	
<i>Sida</i> aff. <i>fibulifera</i> (HD200-6)				1%		3%		
<i>Sida</i> aff. <i>fibulifera</i> (oblong; MET 15 220)								
<i>Sida arenicola</i>								
<i>Sida arsinata</i>								
<i>Sida cardiophylla</i>			1%					
<i>Sida echinocarpa</i>								
<i>Sida pilbarensis</i> (ferruginous form)								
<i>Sida platycalyx</i>		2%						
<i>Sida</i> sp.								
<i>Sida</i> sp. spiciform panicles (E. Leyland s.n. 14/8/90)								
<i>Solanum</i> aff. <i>sturtianum</i>			3%					
<i>Solanum horridum</i>								
<i>Solanum lasiophyllum</i>	2%	4%	2%		1%	+		
<i>Solanum phlomoides</i>								
<i>Solanum sturtianum</i>							1%	
<i>Sporobolus australasicus</i>								
<i>Stemodia grossa</i>								
<i>Stenopetalum decipiens</i>								
<i>Stenopetalum nutans</i>								
<i>Streptoglossa bubakii</i>						1%		1%



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Matrix of Species Found Within Each Site

Species	YB52	YB53	YB54	YB55	YB56	YB57	YB58	YB59
<i>Streptoglossa macrocephala</i>								
<i>Stylobasium spathulatum</i>								
<i>Tephrosia</i> aff. <i>supina</i> (MET 12,357)			+					
<i>Tephrosia rosea</i> var. <i>glabrior</i>								
<i>Themeda triandra</i>								
<i>Trachymene oleracea</i> subsp. <i>oleracea</i>								
<i>Tragus australianus</i>								
<i>Trianthema pilosa</i>								
<i>Trianthema triquetra</i> var. <i>triquetra</i>								
<i>Tribulus angustifolius</i>								
<i>Tribulus astrocarpus</i>								
<i>Tribulus cistoides</i>				1%				
<i>Tribulus hirsutus</i>								
<i>Tribulus macrocarpus</i>								
<i>Tribulus occidentalis</i>								
<i>Tribulus suberosus</i>								
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>								
<i>Triodia angusta</i>								
<i>Triodia basedowii</i>								
<i>Triodia epactia</i>								
<i>Triodia lanigera</i>			30%					
<i>Triodia longiceps</i>								
<i>Triodia pungens</i>								
<i>Triodia schinzii</i>	5%							
<i>Triodia</i> sp. Shovelanna Hill (S. van Leeuwen 3835)								
<i>Triodia wiseana</i>								
<i>Vachellia farnesiana</i>								
<i>Waltheria indica</i>								
<i>Yakirra australiensis</i> var. <i>australiensis</i>								

# **APPENDIX J**

## **LOCATION OF INTRODUCED FLORA SPECIES**

## JIMBLEBAR TO YANDI RAILWAY CORRIDOR FLORA AND VEGETATION ASSESSMENT

### APPENDIX J

#### Location of Introduced Flora Species

Taxa	Site Number	# Easting	# Northing
<i>*Aerva javanica</i>	YA08	730375	7502399
	YA10	745339	7494087
	YA11	743164	7494922
	YA12	741227	7495683
	YA15	735724	7498574
	YA16	733748	7499783
	YA17	732484	7500645
	YA18	731751	7501297
	YA19	731094	7501793
	YA20	732306	7500765
	YA21	734865	7499039
	YA22	736617	7497968
	YA23	737921	7497169
	YA24	740282	7496012
	YA25	742171	7495257
	YA26	744237	7494441
	YA28	738921	7496563
	YA40	750459	7491354
	YA41	751425	7490673
	YA47	755920	7487701
	YA52	760173	7484938
	YB10	797087	7431177
YB19	797213	7434069	
YB56	777803	7465809	

Taxa	Site Number	# Easting	# Northing
	YB57	776517	7467651
	YAR02	733206	7500059
	YAR07	743926	7494630
	YAR11	735351	7498767
	YBOP.07	797211	7434146
	YBOP.05	777773	7465910
	YBOP.31	797087	7431177
<i>*Bidens bipinnata</i>	YA30	747755	7493062
	YA42	751951	7490369
	YA51	759222	7485511
	YB57	776517	7467651
	YAOP17TE	750898	7490993
	YAOP23TE	751806	7490406
<i>*Cenchrus ciliaris</i>	YA01	724999	7505452
	YA02	725867	7505033
	YA03	727689	7504047
	YA04	729322	7503149
	YA05	730956	7501975
	YA06	726773	7504496
	YA07	728530	7503514
	YA08	730375	7502399
	YA10	745339	7494087
	YA11	743164	7494922
	YA12	741227	7495683
	YA13	739287	7496448
	YA14	737454	7497514
	YA15	735724	7498574
	YA16	733748	7499783
	YA17	732484	7500645

<b>Taxa</b>	<b>Site Number</b>	<b># Easting</b>	<b># Northing</b>
	YA18	731751	7501297
	YA19	731094	7501793
	YA20	732306	7500765
	YA21	734865	7499039
	YA22	736617	7497968
	YA23	737921	7497169
	YA24	740282	7496012
	YA25	742171	7495257
	YA26	744237	7494441
	YA27	746376	7493614
	YA28	738921	7496563
	YA30	747755	7493062
	YA31	748561	7492614
	YA32	761546	7484037
	YA33	762913	7483125
	YA34	774037	7472715
	YA39	749465	7491959
	YA40	750459	7491354
	YA41	751425	7490673
	YA42	751951	7490369
	YA43	752818	7489746
	YA44	753450	7489373
	YA45	754258	7488799
	YA46	755084	7488300
	YA47	755920	7487701
	YA48	756904	7487097
	YA49	757539	7486621
	YA50	758611	7485971
	YA51	759222	7485511

<b>Taxa</b>	<b>Site Number</b>	<b># Easting</b>	<b># Northing</b>
	YA52	760173	7484938
	YA53	761110	7484256
	YA54	761805	7483870
	YA55	762527	7483320
	YA56	763553	7482710
	YA57	764019	7482333
	YA58	764971	7481774
	YA59	765816	7481153
	YA60	766465	7480792
	YA62	768546	7479418
	YA63	769158	7478952
	YA64	769962	7478491
	YA65	770642	7477984
	YA66	771553	7477156
	YA67	772119	7476151
	YA68	772995	7478175
	YA69	773227	7474330
	YB01	773734	7473444
	YB02	792699	7420315
	YB03	792775	7420667
	YB04	793044	7421197
	YB05	793513	7421977
	YB06	793847	7422622
	YB07	794545	7424017
	YB08	795497	7425878
	YB09	796348	7427989
	YB10	797107	7430169
	YB11	797087	7431177
	YB12	792805	7420479

<b>Taxa</b>	<b>Site Number</b>	<b># Easting</b>	<b># Northing</b>
	YB13	793270	7421462
	YB14	794306	7423483
	YB15	795061	7424837
	YB16	795989	7427071
	YB17	796945	7429300
	YB18	797180	7432068
	YB19	797213	7434069
	YB21	797129	7438070
	YB23	797156	7432233
	YB24	797179	7435290
	YB25	797204	7437217
	YB26	795982	7441521
	YB27	796757	7439123
	YB30	792770	7446921
	YB32	789602	7450685
	YB33	788078	7452494
	YB34	786370	7454510
	YB36	795188	7444001
	YB37	794476	7444943
	YB38	793372	7446253
	YB39	791886	7448015
	YB40	790418	7449764
	YB43	785262	7455819
	YB44	783398	7457985
	YB48	777315	7466566
	YB49	776040	7468728
	YB50	775135	7470560
	YB51	784292	7456873
	YB52	782618	7459029

Taxa	Site Number	# Easting	# Northing
	YB53	781235	7460977
	YB54	779791	7463012
	YB55	778629	7464668
	YB56	777803	7465809
	YB57	776517	7467651
	YB59	774816	7471229
	YAR02	733206	7500059
	YAR03	760803	7484529
	YAR05	769755	7478651
	YAR06	768053	7479689
	YAR07	743926	7494630
	YAR09	727046	7504392
	YAR10	730003	7502760
	YAR11	735351	7498767
	YAR12	748756	7492438
	YAR13	756679	7487198
	YAR14	757781	7486463
	YAR15	762142	7483574
	YAR16	770823	7477904
	YAR17	772478	7475560
	YBOP.06	777773	7465910
<i>*Cenchrus setiger</i>	YA03	727689	7504047
<i>*Chloris virgata</i>	YA26	744237	7494441
<i>*Cynodon dactylon</i>	YA63	769158	7478952
<i>*Cucumis melo subsp. agrestis</i>	YA33	762913	7483125
	YA34	774037	7472715
	YA51	759222	7485511
	YAOP03.02	729975	7502768
<i>*Malvastrum americanum</i>	YA07	728530	7503514



Taxa	Site Number	# Easting	# Northing
	YA21	734865	7499039
	YA23	737921	7497169
	YA25	742171	7495257
	YA28	738921	7496563
	YA33	762913	7483125
	YA34	774037	7472715
	YA41	751425	7490673
	YA51	759222	7485511
	YA63	769158	7478952
	YB20	797250	7436157
	YB36	795188	7444001
	YB50	775135	7470560
	YB59	774816	7471229
	YAR05	769755	7478651
	YAR06	768053	7479689
	YAOP24TE	751806	7490406
	YAOP06KM	730057	7502713
	YAOP1	729118	7503288
	YAOP19TE	750953	7490970
<i>*Portulaca oleracea</i>	YA01	724999	7505452
	YA03	727689	7504047
	YA05	730956	7501975
	YA06	726773	7504496
	YA07	728530	7503514
	YA13	739287	7496448
	YA15	735724	7498574
	YA16	733748	7499783
	YA17	732484	7500645
	YA22	736617	7497968

<b>Taxa</b>	<b>Site Number</b>	<b># Easting</b>	<b># Northing</b>
	YA25	742171	7495257
	YA26	744237	7494441
	YA27	746376	7493614
	YA28	738921	7496563
	YA32	761546	7484037
	YA34	774037	7472715
	YA39	749465	7491959
	YA40	750459	7491354
	YA41	751425	7490673
	YA42	751951	7490369
	YA43	752818	7489746
	YA45	754258	7488799
	YA48	756904	7487097
	YA50	758611	7485971
	YA51	759222	7485511
	YA52	760173	7484938
	YA54	761805	7483870
	YA60	766465	7480792
	YA61	767623	7479964
	YA70	773734	7473444
	YB04	793513	7421977
	YB05	793847	7422622
	YB08	796348	7427989
	YB17	796945	7429300
	YB18	797180	7432068
	YB19	797213	7434069
	YB24	797179	7435290
	YB25	797204	7437217
	YB26	795982	7441521

Taxa	Site Number	# Easting	# Northing
	YB27	796757	7439123
	YB40	790418	7449764
	YB41	788830	7451661
	YB42	786943	7453920
	YB44	783398	7457985
	YB47	779203	7463903
	YB48	777315	7466566
	YB49	776040	7468728
	YB50	775135	7470560
	YB55	778629	7464668
	YB57	776517	7467651
	YB59	774816	7471229
	YAR06	768053	7479689
<i>*Setaria verticillata</i>	YA25	742171	7495257
	YA33	762913	7483125
	YA41	751425	7490673
	YA55	762527	7483320
	YB49	776040	7468728
	YB50	775135	7470560
<i>*Vachellia farnesiana</i>	YA05	730956	7501975
	YA08	730375	7502399
	YA19	731094	7501793
	YB13	793804	7422326
	YAR10	730003	7502760
	YAOP03.01	729975	7502768

# Australian Geocentric 1994 (GDA94), Zone 50K